





Digital Engineering · Universität Potsdam

Sales and Distribution (Kundenauftragsabwicklung)

Trends and Concepts of Business Application Architecture

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Hasso-Plattner-Institut

Course Overview

Trends and Concepts of Business Application Architecture

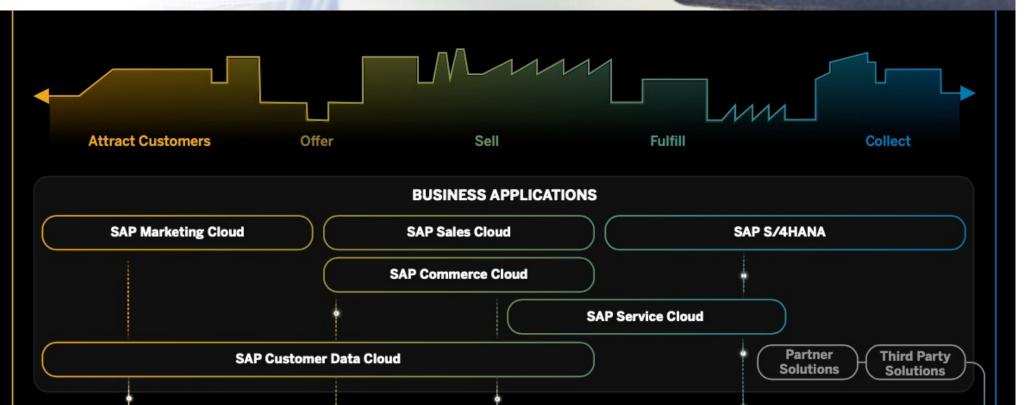
- Digitalization of Business Processes
- Enterprise Resource Planning
 - Sales and Distribution
 - Finance, Accounting, and Controlling
 - Human Resources
 - Material Management and Production Planning
- Columnar In-Memory Database Systems for Business Applications
- Customer Relationship Management
- Enterprise Cloud Platforms for Integration and Extensions
- Block Week: Architecture Deep Dives



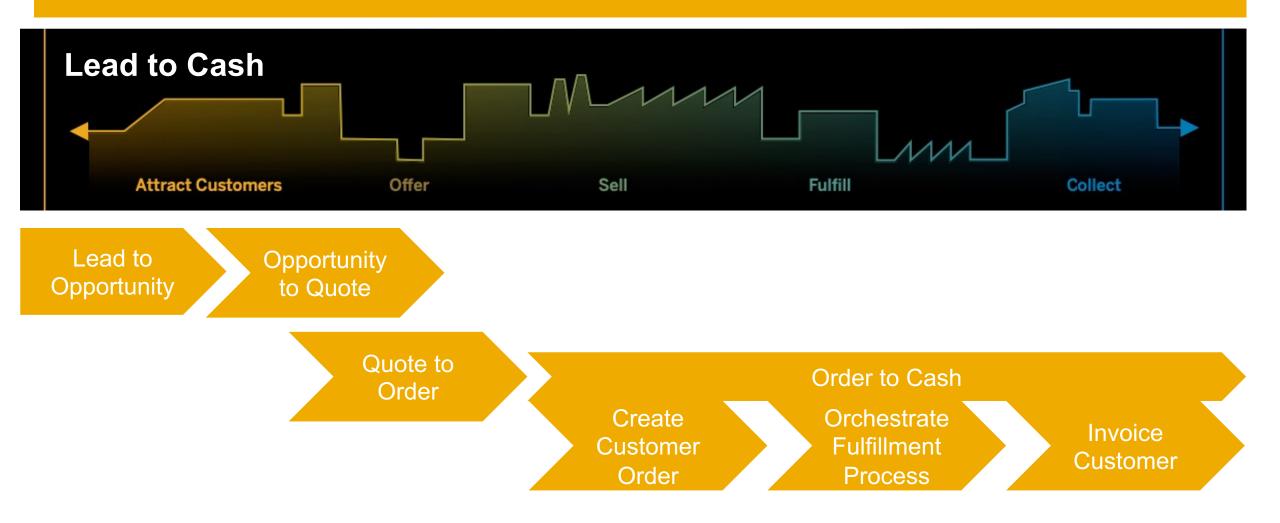
Lead to Cash

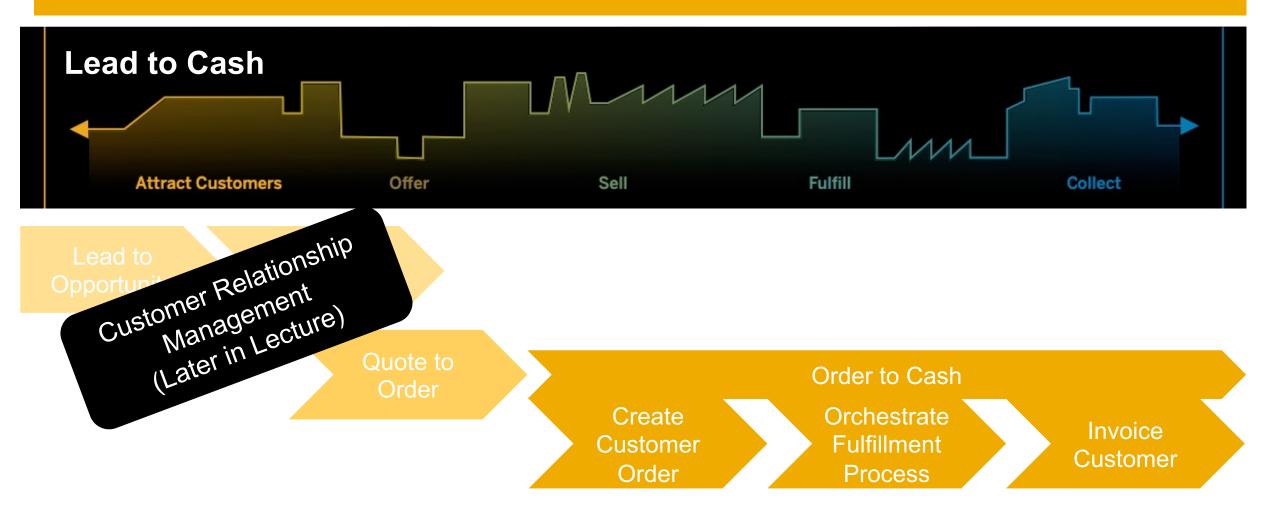
Manage all aspects of the customer experience, from the initial interaction to order fulfillment and service delivery. Drive and realize revenue along the customer journey.











Agenda Sales and Distribution

HPI Hasso Plattner Institut

- Organizational Structure
- Master Data
- Order-to-Cash Process
 - Create Customer Order
 - Orchestrate Fulfillment Process
 - Invoice Customer
- Summary

Agenda Sales and Distribution



Organizational Structure

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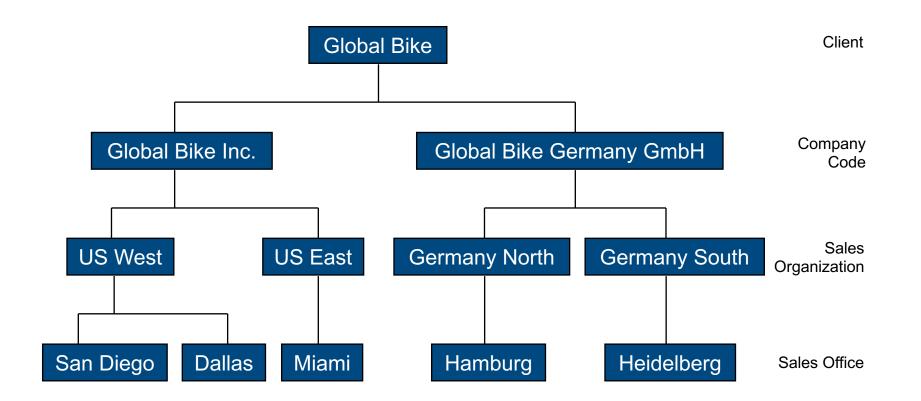
Organizational Structure

- Client
 - An independent environment in the system
- Company Code
 - Smallest org unit for which you can maintain a legal set of books
- Credit Control Area
 - An organizational entity which grants and monitors a credit limit for customers
 - It can include one or more company codes
- Sales Organization
 - An organizational unit responsible for the sale of certain products or services
 - The responsibility of a sales organization may include legal liability for products and customer claims
- Distribution Channel
 - The way in which products or services reach the customer
 - Typical examples of distribution channels are wholesale, retail, or direct sales

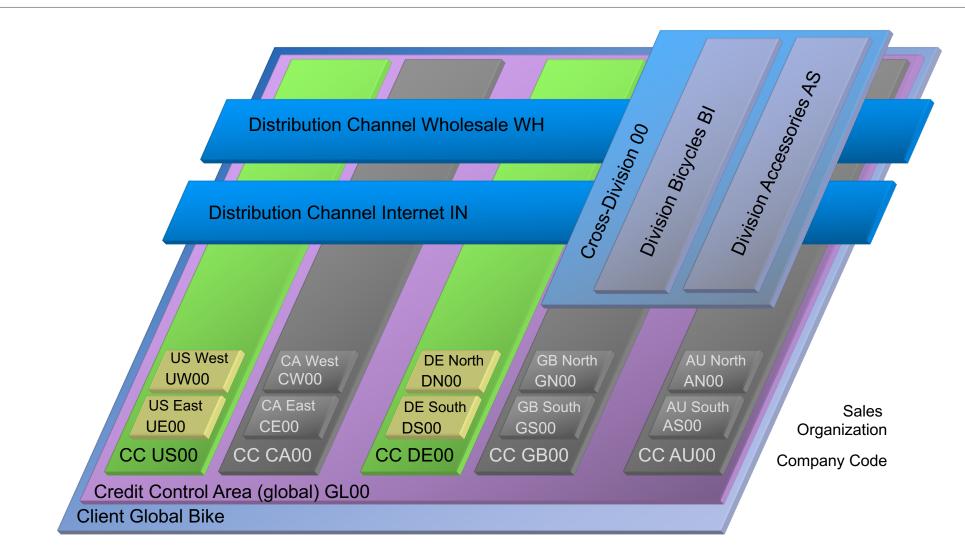
Organizational Structure

- Division (Sparte)
 - A way of grouping materials, products, or services
- Sales Area
 - Combination of Sales Organization, Distribution Channel and Division
 - Determines conditions (i.e. pricing) for sales activities
- Plant (here: Delivering Plant)
 - Plant from which the goods should be delivered to the customer
- Other SD organization units:
 - Shipping Point
 - Loading Point
 - Sales Office
 - Sales Group
 - Sales Person

Global Bike Structure for Sales and Distribution



Global Bike Enterprise Structure in SAP ERP (Sales)



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What kind of master data do we need?



HPI

Sales and Distribution Master Data

< SAP Create Standar	rd Order: Overview		
✓ Display Propose Items Header Out	tput Preview Reject Documer	nt Mehr \sim	Exit
Standard Order: Sold-To Party: 25011 The Bike Zone / 2144 N O	Net Value:	20.092,50 USD	
	Drange Ave / Orlando FL 32804 Cust. Ref. Date:	R	Customer Master
Sales Item Overview Item detail Ordering party Pro	ocurement Shipping R	eason for rejection	
*Req. Deliv.Date: D 07.06.2018 Complete Div.:	Deliver.Plant:	57.170 G	Material Master
Delivery Block: Billing Block: Pyt Terves: 0001 Pay immediately w/o deduction	Volume: Pricing Date: 07.05.2018	0,000	
Inco. Version:			Sales Condition
Inco. Location1: Miami	한 Group 🛛 🔍	1	
All Items	The Oroch	·	
Item Material 10 DXTR1000 20 PRTR1000	Req. Segment	Order Quantity	Un S 5 EA 2 EA

Customer Master Data

- Customer Master
 - Contains all of the information necessary for processing orders, deliveries, invoices and customer payment
 - Every customer MUST have a master record
 - But you can have one-time customers
- Created by Sales Area
 - Sales Organization
 - Distribution Channel
 - Division
- The customer master information is divided into 3 areas:
 - General Data (Name, address, communication)
 - Company Code Data (Accounts, bank)
 - Sales Area Data (Sales office, currency)

	Display Organization: 2001, role FI Customer
✓ Com	pany Code ETM Data Relationships Settings More \sim
Business Partner: 20	001 Philly Bikes / Philadelphia PA 19073
*Display in BP role: FI	LCU00 FI Customer
Address Address Overvi	iew Identification Control Payment Transactions Status Legal Data Custo
Name	
Title:	0003 Company V
Name:	Philly Bikes
Salutation:	
Salutation:	00
oundation.	
Search Terms	
Search Term 1/2:	000
Special Customer	
VIP	
Undesirable Customer	Reason Undes.:
	Comment:
Standard Address	
🔎 📄 🖶 Print Preview	
Street Address	
Street/House number	r. 20 Pine St
Postal Code/City	c 19073 Philadelphia
Country	y: US USA Region: PA Pennsylvania
Time zone	EST Tax Juris.: PA0000000
Time zone	

Changes in SAP S/4HANA Business Partner

- There are redundant object models in the traditional ERP system where the vendor master and customer master is used
- The (mandatory) target in SAP S/4HANA is the Business Partner approach as Single Point of Entry for master data such as customer, supplier, contact person
- Business partners can be categorized as a person, group, or organization as follows:
 - An organization represents units such as a company (for example, a legal person), parts of a legal entity (for example, a department), or an association. Organization is an umbrella term to map every kind of situation in the day-to-day business activities
 - A group represents a shared living arrangement, a married couple, or an executive board
- As part of the current development, the transaction BP represents the central entry point for creating, editing and displaying the master data of business partners, customers, and suppliers

Changes in SAP S/4HANA Business Partner

DEMO

- The core function of SAP S/4HANA is the simplification of data structures
- > various transactions, such as the management of customers or creditor, are summarized
- It is (so far) still possible to navigate through the well-known tree paths

🖻 Customer Display: Initial Screen		Display Organization: 12001, role FI Customer
Customer 🛗 [13000		Organization Group Open BP Previous Partner Switch Between Display and Change General Data ETM Data
Company code DE00 Sales area	Display Customer: General Data Other Customer 6 Company Code Data	Business Partner: 12001 IM Airport Bikes / 63263 Neu-Isenburg *Display in BP role: FI Customer
Sales Organization Distribution Channel Division	Customer 13000 Airport Bikes Neu-Isenburg Address Control Data Payment Transactions Marketing Export Data	Company Code
All sales areas	Preview Image: Company Name Airport Bikes	Company Code: DE00 Global Bike Germany GmbH Company Codes Customer: 13000 Vendor:
	Search Terms Search term 1/2 000	Customer: Account Management Customer: Payment Transactions Customer: Correspondence Customer: Ins Account Management Account Management Account Management Account Management Account Management
	Street Address Street/House number Im Schwalbennest Postal Code/City 63263 Neu-Isenburg Country DE Germany Region 06 Time zone CET Transportation Zone 000000002 Region South	A unique business partner number is assigned to customer 13000. Thi business partner number is assigned to various roles such as the customer, creditor or contact person.

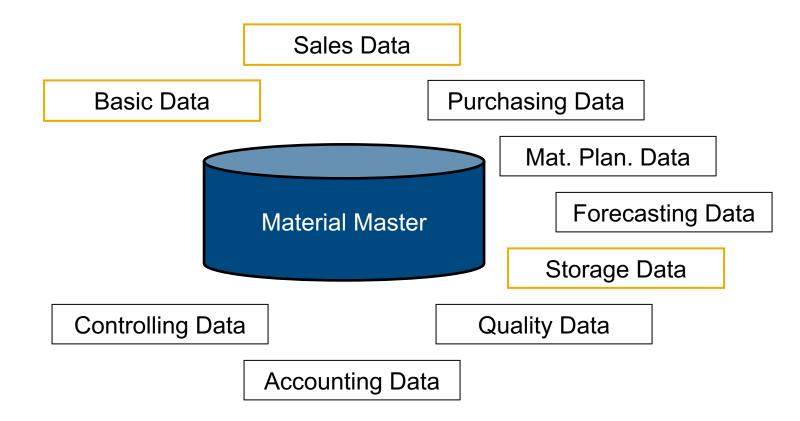
Relationship: n:m

Material Master Data

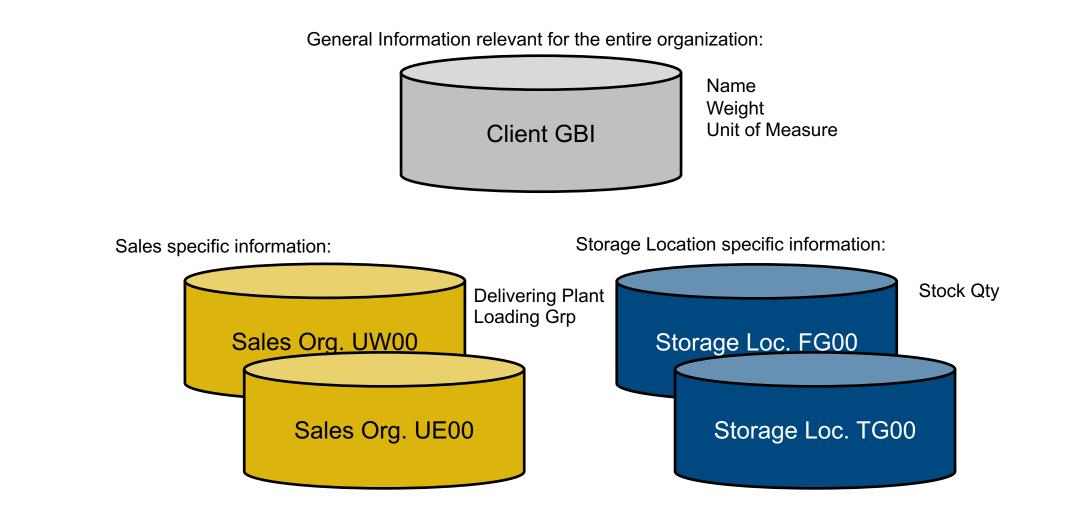
- Material master
 - Represents the central source for retrieving material-specific data for a company
 - Used by most components in the SAP system:
 - Sales
 - Material management
 - Production
 - Maintenance
 - Accounting
 - Quality management
 - Material master data is stored in functional segments, the so-called views

	Material D	XTR1000 anzeigen (Fertigerzeug	nis)
→ And	leres Material Zusatzdaten	OrgEbenen Mehr \sim	
👼 Grunddaten 1 📑 Gru	nddaten 2 🛛 👼 Vertrieb: V	VerkOrg 1 🛛 👼 Vertrieb: VerkOr	g 2 🛛 👼 Vertrieb: allg./Wer
Material: DXTR1000]@]	i
Bezeich: Deluxe Touring	Bike (schwarz)		6-3
Allgemeine Daten			
Basismengeneinheit	EA each	Warengruppe: BIKES	
Alte Materialnummer		Ext.Warengrp.:	
Sparte	BI	Labor/Büro:	
KontingentSchema		Produkthierar.:	
Werksüb. MatStatus		Gültig ab:	
Gültigkeit bewerten		allg.Postypengr: NORM	Normalposition
Materialberechtigungsgruppe Berechtigungsgruppe			
Abmessungen/EAN			
Bruttogewicht	8.510	Gewichtseinheit: G	
Nettogewicht	8.510		
Volumen	0,000	Volumeneinheit:	
Größe/Abmessung			
EAN/UPC-Code		EAN-Typ:	
Verpackungsmaterialdaten			
Materialgruppe PM			

Material Master Views



Material Master



Condition Master Data (Pricing)

- Condition master data includes:
 - Prices
 - Surcharges
 - Discounts
 - Freights
 - Taxes
- You can define the condition master to be dependent on various data:
 - Material specific
 - Customer specific
- Conditions can be dependent on any document field

		Item: Material:	10 DXTR1000]		Ite	em catego	ory: TAN		Standard It Deluxe Tou	em ıring Bike (black)	
Sales	A	Sales B S	Shipping	Billing	Document	Conditi	ons	Account	Assi	gnment	Schedule lines	Parti
C	Quantity	<i>r.</i>		5 EA		Net:			1	5.000,00	USD	
						Tax:				0,00		
I	ng Eler CnTy	Name		A	Amount		Crcy	per	U	Condition	Value	Curr.
		Price		,		.000,00	USD		EA	Condition	15.000,00	USD
5		Gross Value				.000,00	USD		EA	<u> </u>	15.000,00	USD
H		Discount Amo	ount	-		0,00	USD	1			0,00	USD
5 8		Rebate Basis			3	.000,00	USD	1	EA		15.000,00	USD
		Net Value for	Item		3	.000,00	USD	1	ΕA		15.000,00	USD
		Net Value 2			3	.000,00	USD	1	ΕA		15.000,00	USD
		Total			3	.000,00	USD	1	EA		15.000,00	USD
	SKTO	Cash Discour	nt			0,000	%				0,00	USD
	VPRS	Internal price			1	.400,00	USD	1	EA		7.000,00	USD
		🗗 Indard - US	SA /With		1	.600,00	USD	1	EA		8.000,00	USD

- Output is information that is sent to the customer using various media, such as:
 - E-mail
 - Mail
 - EDI
 - Fax
 - XML
- Output examples:
 - Quotation
 - Confirmation
 - Invoice

< SAP	Change Standard Order 6: Output
[l ~] Mo	re 🗸
Sold-to party: Output type:	
Printing information	
Logical destination:	LP01
Number of messages:	Beispieldrucker. Mit SPAD anpassen. O V Print immediately
Spool request name: Suffix 1:	
Suffix 2:	
SAP cover page:	Do Not Print V
Recipient: Department:	LEARN-015
Cover Page Text:	
Authorization:	
Storage Mode:	1 Print only
Format	
Form	



- Organizational Structure
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Sales Order Process

Quote to Order

Pre-Sales Activities

- Inquiry
- Quotation

Create Customer Order

Create Sales Order

- Delivery Scheduling
- Shipping & Route Determination
- Availability Check
- Pricing
- Credit Check

Order to Cash

Orchestrate Fulfillment Process

Material Provision

- Delivery Creation
- Picking
- Loading and Packing
- Goods Issue

Invoice Customer

Create Invoice

- Billing
- Payment

Pre-Sales Activities (CRM Light)

- Sales Support is a component that assists in the sales, distribution, and marketing of a company's products and services to its customers
- It contains the following functionality:
 - Creating and tracking customer contacts and communications (sales activity)
 - Phone call records
 - On-site meeting
 - Letters
 - Campaign communication
 - Implementing and tracking direct mailing, internet, and trade fair campaigns based on customer attributes
- Pre-sales documents need to be managed within the presales activities: Inquiries and Quotations
- These documents help identify possible sales related activity and determine sales probability

Pre-Sales Activities (CRM Light)

- The goal of all pre-sales activities is to equip the sales technician with all the information necessary to negotiate and complete the potential sale
- Information needed:
 - Past sales activity
 - Past communication
 - Contact information
 - General Company info
 - Credit limits and usage
 - Current backorders
- 360° view of your customer

	-			-				
Туре	Sales Call	Ē	Company	162		SAP, Ameri	ica / / New	ton Square PA
From	10/0 <mark>4/2006</mark>	09:45 📑 🔁	Contact person	Eva	Romero			
То	10/0 <mark>4/2</mark> 006	10:22	Employee respo	ons. 21		Grayson / 1	150 Forest	Ave / US / 5
Comment	Status HOT							
Follow-up ac	tions							
Create stan			🗈 🕀 s	tart 🔍	a 🖻		O L	ink objects
oroato otari								Link objects
Reserved Provide America Stresson	. ,	Partner 🖓 Tex		istical info	۵	Cu	ustomer:	000000162
-	-	_	Statistics	s measures		-		-
-	-	_		s measures Value in T			-	
Docum	ent category	Min			Ave	erage	Open	Number
	ent category ctivities (CAS)	Min		Value in T		erage 0	Open	Number
			Max	Value in T Totals		-	Open	Number
			Max 0	Value in T Totals		-	Open	Number
Sales ad			Max 0	Value in T Totals 0		-		Number
Sales ad	ctivities (CAS)	0	Max 0	Value in T Totals 0		0 Net val		
Sales ad Sales ad 01000	ctivities (CAS)	0 Date	Max 0	Value in T Totals 0		0 Net val	lue .00	Status
Sales ac Sales ac 01000	tivities (CAS) tivities (CAS) 00003 ⊳	0 Date 03/10/06	Max 0	Value in T Totals 0		0 Net val	lue 00	Status Open
Sales ac Sales ac 01000 000000	ttivities (CAS) ttivities (CAS) 000003 ⊳ Order	0 Date 03/10/06 Date	Max 0	Value in T Totals 0		0 Net val 0. Net val	lue 00 SD	Status Open Status
Sales ac Sales ac 01000 00000 00000	tivities (CAS) tivities (CAS) 100003 D Order 100146 D	0 Date 03/10/06 Date 10/03/06	Max 0	Value in T Totals 0		0 Net val 0. Net val 1,452.25 US	lue 00 SD SD	Status Open Status Open
Sales ac 01000 00000 00000 00000	tivities (CAS) tivities (CAS) 100003 > Order 100146 > 100145 >	0 Date 03/10/06 Date 10/03/06 09/25/06	Max 0	Value in T Totals 0	4	0 Net val 0. Net val 1,452.25 US 1.09 US	lue 00 SD SD SD	Status Open Status Open Open
Sales ac Sales ac 01000 00000 00000 00000 00000	tivities (CAS) tivities (CAS) 100003 ▷ Order 100146 ▷ 100145 ▷ 100140 ▷	0 Date 03/10/06 Date 10/03/06 09/25/06 03/15/06	Max 0	Value in T Totals 0	4	0 Net val 0. Net val 1,452.25 US 1.09 US 9,750.00 US	lue 00 SD SD SD SD SD	Status Open Status Open Open Open Completed

Inquiry (Anfrage)

- An inquiry is a customer's request to a company for information or quotation in respect to their products or services without obligation to purchase
 - How much will it cost
 - Material/Service availability
 - May contain specific quantities and dates
- The inquiry is maintained in the system and a quotation is created to address questions for the potential customer

Company The Bike Zone 2105 N Lewis Ave Portland OR 97227	Inquiry Number/Date 10000002 / 04/21/2010 Reference no./Date 000 /04/21/2010 Delivery date Day 04/21/2010 Cust. no. 1301 Validity period 04/21/2010 bis 05/21/2010
We deliver according to the following conditions: Terms of payment Payable immediately	Currency USD v without deduction
Terms of delivery FOB San Diego	
Weights (gross/net) - Volume - Mark Gross weight 57, 170 G Net we	eight 57,170 G
Please see our promotional offer end last.	losed. Delivery as long as stocks:
Item Material Description Qty Pr	ice Price unit Value
5 EA 3,000.00 000020 PRTR1000 Profession 2 EA 3,200.00	al Touring Bike (black)
Final amount	21,400.00

Quotation (Angebot)

 The quotation presents the customer with a legally binding offer to deliver specific products or a selection of a certain amount of products in a specified timeframe at a predefined price.

		Quotation
Compan	y ke Zone	Number/Date
	Lewis Ave	20000000 / 04/21/2010
	nd OR 97227	Reference no./Date
LOICIG	ind on SYZE?	000 /04/21/2010
		Delivery date
		Day 04/21/2010
		Cust. no.
		1301
		Validity period
		04/21/2010 bis 05/21/2010
	r according to the following co	
Terms	of payment Payable	immediately without deduction
Terms	of payment Payable	immediately without deduction
	of payment Payable of delivery FOB S	
Terms	of delivery FOB S	
Terms Weights (of delivery FOB S gross/net)-Volume-Mark	- 3an Diego
Terms Weights (of delivery FOB S	- 3an Diego
Terms Weights (Gross Please	of delivery FOB S gross/net)-Volume-Mark weight 57,1	- 3an Diego
Terms Weights (Gross Please	of delivery FOB S gross/net)-Volume-Mark weight 57,1	- San Diego 170 G Net weight 57,170 G
Terms Weights (Gross Please last.	of delivery FOB s gross/net)-Volume-Mark weight 57,1 see our promotions	- San Diego 170 G Net weight 57,170 G al offer enclosed. Delivery as long as stocks
Terms Weights (Gross Please last.	of delivery FOB s gross/net)-Volume-Mark weight 57,1 see our promotions Material	San Diego 170 G Net weight 57,170 G al offer enclosed. Delivery as long as stocks Description
Terms Weights (Gross Please	of delivery FOB s gross/net)-Volume-Mark weight 57,1 see our promotions	- San Diego 170 G Net weight 57,170 G al offer enclosed. Delivery as long as stocks
Terms Weights (Gross Please last. Item	of delivery FOB s gross/net)-Volume-Mark weight 57,1 see our promotione Material Qty	San Diego 170 G Net weight 57,170 G al offer enclosed. Delivery as long as stocks Description Price Price unit Value
Terms Weights (Gross Please last. Item	of delivery FOB s gross/net)-Volume-Mark weight 57,1 see our promotions Material Qty DXTR1000	San Diego 170 G Net weight 57,170 G al offer enclosed. Delivery as long as stocks Description Price Price unit Value Deluxe Touring Bike (black)
Terms Weights (Gross Please last. Item	of delivery FOB s gross/net) - Volume - Mark weight 57, 1 see our promotions Material Qty DXTR1000 5 EA	San Diego 170 G Net weight 57,170 G al offer enclosed. Delivery as long as stocks Description Price Price unit Value Deluxe Touring Bike (black) 3,000.00 USD 1 EA 15,000.00
Terms Weights (Gross Please last. Item	of delivery FOB s gross/net) - Volume - Mark weight 57, 1 see our promotione Material Qty DXTR1000 5 EA Material	San Diego 170 G Net weight 57,170 G al offer enclosed. Delivery as long as stocks Description Price Price unit Value Deluxe Touring Bike (black) 3,000.00 USD 1 EA 15,000.00 50.00- USD 1 EA 250.00-
Terms Weights (Gross Please last. Item	of delivery FOB s gross/net)-Volume-Mark weight 57,1 see our promotions Material Qty DXTR1000 5 EA Material % Discount from N	San Diego 170 G Net weight 57,170 G al offer enclosed. Delivery as long as stocks Description Price Price unit Value Deluxe Touring Bike (black) 3,000.00 USD 1 EA 15,000.00 50.00- USD 1 EA 250.00- 5.000- % 737.50-
Terms Weights (Gross Please last. 	of delivery FOB s gross/net)-Volume-Mark weight 57,1 see our promotions Material Qty DXTR1000 5 EA Material % Discount from N Net Value for Ite	San Diego 170 G Net weight 57,170 G al offer enclosed. Delivery as long as stocks Description Price Price unit Value Deluxe Touring Bike (black) 3,000.00 USD 1 EA 15,000.00 50.00- % 737.50- 2,002.50 USD 1 EA 14,012.50
Terms Weights (Gross Please last. 	of delivery FOB s gross/net)-Volume-Mark weight 57,1 see our promotione Material 0ty DXTR1000 5 EA Material % Discount from N Net Value for Ite PRTR1000	San Diego 170 G Net weight 57,170 G al offer enclosed. Delivery as long as stocks Description Price Price unit Value Deluxe Touring Bike (black) 3,000.00 USD 1 EA 15,000.00 50.00- USD 1 EA 250.00- 5.000- % 737.50- 2,802.50 USD 1 EA 14,012.50 Professional Touring Bike (black)
Terms Weights (Gross Please last. 	of delivery FOB s gross/net)-Volume-Mark weight 57,1 see our promotione Material 0ty DXTR1000 5 EA Material % Discount from N Net Value for Ite PRTR1000	San Diego 170 G Net weight 57,170 G al offer enclosed. Delivery as long as stocks Description Price Price unit Value Deluxe Touring Bike (black) 3,000.00 USD 1 EA 15,000.00 5.000-% 737.50- 2,802.50 USD 1 EA 14,012.50 Professional Touring Bike (black) 3,200.00 USD 1 EA 6,400.00
Terms Weights (Gross Please last. 	of delivery FOB s gross/net) - Volume - Mark weight 57, 1 see our promotions Material Qty DXTR1000 5 EA Material % Discount from N Net Value for Ite PRTR1000 2 EA	San Diego 170 G Net weight 57,170 G al offer enclosed. Delivery as long as stocks Description Price Price unit Value Deluxe Touring Bike (black) 3,000.00 USD 1 EA 15,000.00 5.000 % 737.50- 2,802.50 USD 1 EA 14,012.50 Professional Touring Bike (black) 3,200.00 USD 1 EA 6,400.00 5.000 % 320.00-
Terms Weights (Gross Please last. Item 000010	of delivery FOB s gross/net) - Volume - Mark weight 57, 1 see our promotions Material Q1y DXTR1000 5 EA Material % Discount from N Net Value for Ite PRTR1000 2 EA % Discount from N Net Value for Ite	San Diego 170 G Net weight 57,170 G al offer enclosed. Delivery as long as stocks Description Price Price unit Value Deluxe Touring Bike (black) 3,000.00 USD 1 EA 15,000.00 50.00- VSD 1 EA 250.00- 5.000-% 737.50- 2,802.50 USD 1 EA 14,012.50 Professional Touring Bike (black) 3,200.00 USD 1 EA 6,400.00 5.000-% 320.00-
Terms Weights (Gross Please last. Item 000010	of delivery FOB s gross/net) - Volume - Mark weight 57, 1 see our promotions Material Qty DXTR1000 5 EA Material % Discount from N Net Value for Ite PRTR1000 2 EA % Discount from N	San Diego 170 G Net weight 57,170 G al offer enclosed. Delivery as long as stocks Description Price Price unit Value Deluxe Touring Bike (black) 3,000.00 USD 1 EA 15,000.00 5.000 % 737.50- 2,802.50 USD 1 EA 14,012.50 Professional Touring Bike (black) 3,200.00 USD 1 EA 6,400.00 5.000 % 320.00-

Sales Order Process

Quote to Order

Pre-Sales Activities

- Inquiry
- Quotation

Create Customer Order

Create Sales Order

- Delivery Scheduling
- Shipping & Route Determination
- Availability Check
- Pricing
- Credit Check

Order to Cash

Orchestrate Fulfillment Process

Material Provision

- Delivery Creation
- Picking
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- Goods Issue

Invoice Customer

Create Invoice

- Billing
- Payment

Sales Order

- Sales order processing can originate from a variety of documents and activities
 - Customer contacts us for order: phone, internet, email
 - Existing Contract
 - Quotations
- The electronic document that is created should contain the following basic information:
 - Customer Information
 - Material/service and quantity
 - Pricing (conditions)
 - Specific delivery dates and quantities
 - Shipping information
 - Billing Information

How would you design a Sales Order business object?

Sales Order

- The sales document is made up of three primary areas:
 - Header
 - Data relevant for the entire sales order, e.g., customer data, total cost of the order
 - Line Item(s)
 - Information about the specific product, e.g., material and quantity, cost of an individual line

- Schedule Line(s) (Lieferplaneinteilung)
- Uniquely belongs to a Line Item, contains delivery quantities and dates for partial deliveries

						DEM
Standard Order	15		Net Value:		<u>21.400,00</u> U	SD
Sold-To Party	25011	The Bike Zone / 214	4 N Orange Ave / Orla	ndo FL 32804		1
Ship-To Party	25011	The Bike Zone / 214	4 N Orange Ave / Orla	ndo FL 32804		
Cust. Reference	0000		Cust. Ref. Date:	08.05.2018	E	3 😩
es Item Overvi	ew Item detail	Ordering party	Procurement S	Shipping Reaso	on for rejection	
Req. Deliv.Dat	e: D 08.05.2	018	Deliver.Plant:			
Complete Di			Total Weight:		57.170 G	
Delivery Bloc		~	Volume:		0,000	
Billing Bloc		~	Pricing Date:	08.05.2018	0,000	
Pyt Term		nediately w/o deduction	-	00.05.2010		
Inco. Versio		inculately we deduction				
Incoterm						
Inco. Location						
[⊕ ⊖] → [注	N D C N N	H 0, 0	a) [ao (Group		
All Items						
Item Material		Order Quantity	Un S	Item Description		Customer Material
10 DXTR100	0		5 EA	Deluxe Touring Bik	e (black)	
20 PRTR100	10		2 EA	Professional Touring	ng Bike (black)	
	Item: 10		Item category	TAN Standar	d Item	
M	aterial: DXTR1000		nem category		Touring Bike (bla	ick)
IVI	ateriai. BATK1000			Deluxe	Fouring Dike (Die	ick)
0-1 0-1	D. Ohimping	Dilling Deserves	0		0-1-1-1-1	Det 1
Sales A Sales	B Shipping	Billing Document	Conditions Ac	count Assignment	Schedule I	nes Part)
Fixed Date	and Qty:		Order Quanti	tv.	5 1	EA
	ery Time:	~	Delivered q		5	
00000			Doniorod q	.j.		
		Sales	Q Shipping	Q Procurement	t	
		Sales	Q Shipping	Q Procuremen	t	
Quantities/Dates						ed atv
	Order Quantity	Rounded qty	Q Shipping Confirmed Qty		y Block Deliver	ed qty 5
Quantities/Dates		Rounded qty	Confirmed Qty	S Deliver	y Block Deliver	

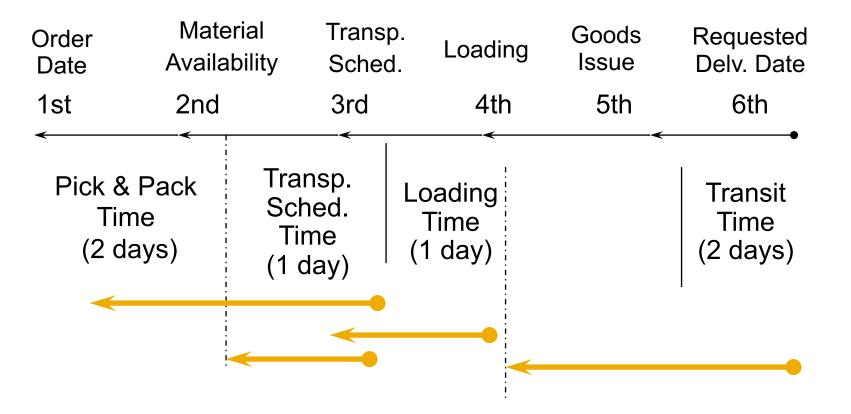
Sales Order

- The sales order contains all information needed to process your customer's request,
- The following information is determined for each sales order:
 - Delivering Schedule
 - Shipping point and route determination
 - Availability Check
 - Transfer of requirements to Material Ressource Planing (MRP)
 - Pricing
 - Credit limit check

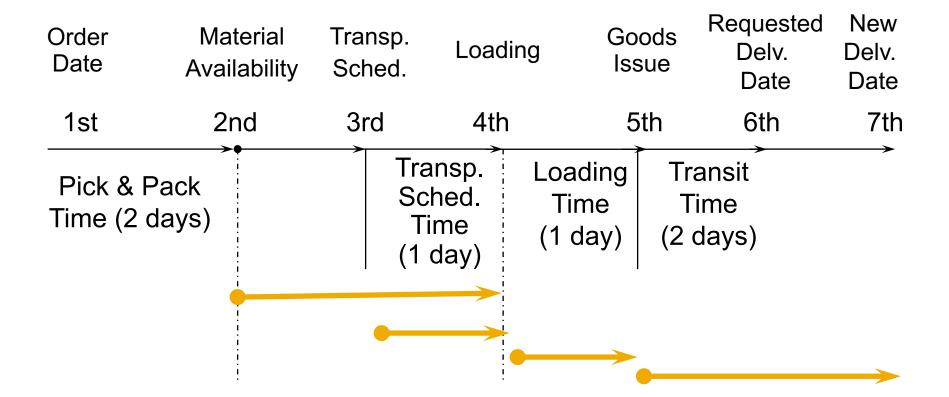
Delivery Scheduling

- When an order is created you must enter a requested delivery date for the order or each line item
- The system will then determine a delivery timeline, this will be used when determining our material availability, or ATP (Availability to Promise) date
- The system will determine this date using forward and backward scheduling rules you have defined

Backward Scheduling



Forward Scheduling



Shipping & Route Determination

- During the creation of the sales order the system must determine the shipping point from which the material will be shipped and the route the material will take to get from your warehouse to your customers location
- A shipping point is determined for each line item within the order
- The route determination is used to define the transit time of the material that we used in scheduling

Availability Check

- Availability Check
 - Determines the material availability date
 - Considers all inward and outward inventory movements
- Proposes 3 methods of delivery
 - One-time delivery
 - Complete delivery
 - Delayed proposal
- Rules are created by USERS

< SAP				Availability Ove	erview		
	\sim	Period Totals	All details	Stock Overview	Stock in Detail	Totals Overvi	iew More
Mat	erial: DXTF	R1015					
	Delu	ixe Touring Bike	(black)				
F	Plant: MIO	0			Avail. check:	02 C	heck.rule:
MRP	Area: MIO)		١	Nith reqmts qtys:		
					End lead time:		
					End load time.		
	Unit: EA						
otals display							
Receipts:		95					
Issues:		0		Confrmd	issues:		0
ATP situation							
Date	MRP el	. MRP element	data			Rec./reqd qty	
14.05.2018	Stock						95
14.05.2018	SLocSt	FG00					95

Pricing

- The system displays pricing information for all sales documents on the pricing screens at both the header and the line item level
 - Header pricing is valid for the whole order and it is the cumulative of all line items within the order
 - Line item pricing is for each specific material
- The system will automatically search for prices, discounts, surcharges, calculate taxes and freight. You have the ability to manually manipulate the pricing at both the header and line item level within the sales order by entering a condition type and amount
 - Taxes and freight are generated

Credit Check

- Allows your company to manage its credit exposure and risk for each customer by specifying credit limits
- During the sales order process the system will alert the sales representative about the customers credit situation that arises
- If necessary, the system can be configured to block orders and deliveries

Sales Order Process

Quote to Order

Pre-Sales Activities

- Inquiry
- Quotation

Create Customer Order

Create Sales Order

- Delivery Scheduling
- Shipping & Route Determination
- Availability Check
- Pricing
- Credit Check

Order to Cash

Orchestrate Fulfillment Process

Material Provision

- Delivery Creation
- Picking
- Loading and Packing
- Goods Issue

Invoice Customer

Create Invoice

- Billing
- Payment

Material Provision

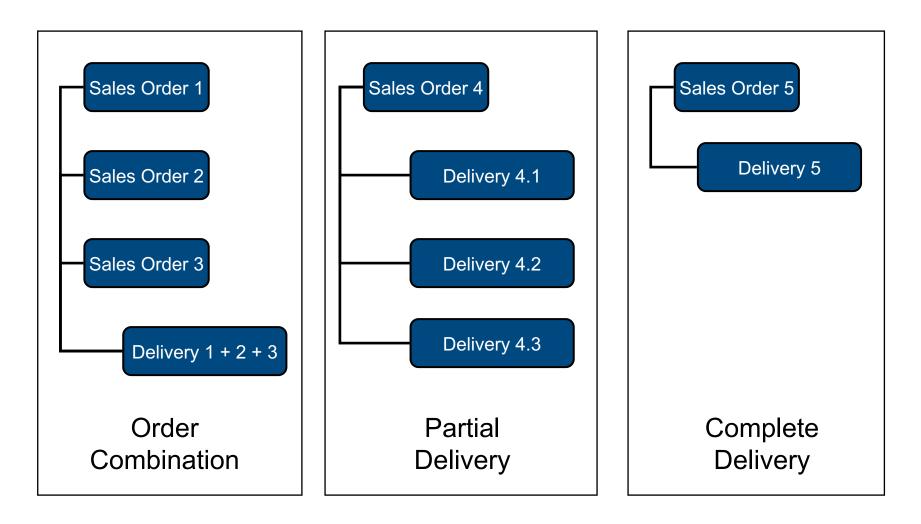
- The shipping process begins when you create the delivery document for the sales order
- This document controls, supports, and monitors numerous sub-processes for shipping processing:
 - Picking
 - Packing
 - Loading
 - Post Goods Issue
- Changes to delivery are allowable products, quantities
- Integrated with the Material Management (MM), extended Warehouse Management (eWM) and Finance (FI) modules

DEMO

Delivery Creation

- Checks order and materials to determine if a delivery is possible delivery block (hold), completeness
- Confirms availability
- Confirms export/foreign trade requirements
- Generates packing proposal
- Calculates (total) weight and volume
- Checks scheduling
- Considers partial deliveries
- Updates route assignment
- Assigns picking location
- Updates sales order
- Determines batches
- Quality check (if needed)
- Updates sales order

Kinds of Shipping



Picking (Kommissionierung)

- Quantities based on delivery note
- Assigned date when picking should begin
- Automated storage location assignment
- Supports serial number/lot number tracking and batch management
- Integrated with Warehouse Management (WM)

Loading and Packing

- Identifies which packaging is to be used for specified products
- Identifies and updates accounts associated with returnable packaging
- Tracks the packed product by container
- Insures weight/volume restrictions are enforced
- All packed items are assigned to the required means of transportation

Goods issue (Warenausgang)

- Event that could indicates the legal change in ownership of the products
 - It is recognition that the goods have left the premises of the seller
 - Legal change in ownership depends on the Incoterm (International Commercial Terms) and what's in the sales order terms and conditions
- Reduces inventory and enters Cost of Goods Sold
- Automatically updates the General Ledger (G/L) accounts
- Ends the shipping process and updates the status of the shipping documents

Sales Order Process

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Order to Cash

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DEMO

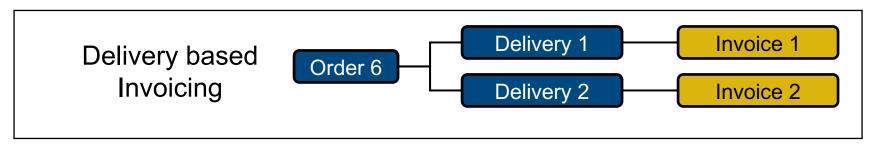
Create Invoice

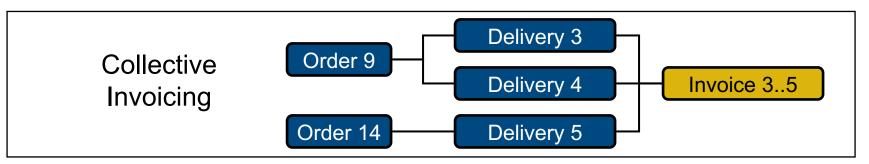
- Billing
- Payment

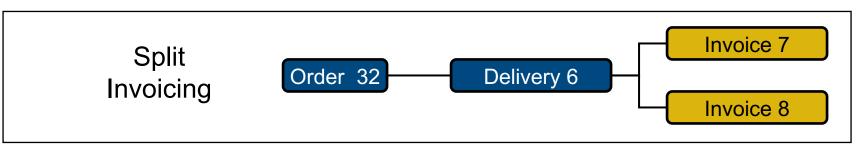
Billing (Fakturierung)

- The billing document is created by coping data from the sales order and/or delivery document
 - Order-based billing
 - Delivery-based billing
- The billing process is used to generate the customer invoice
- It will update the customer's credit status
- The billing document will automatically create a debit posting to your customer sub-ledger account and credit your revenue account
- It is at this point that the sales process is passed over to Financial Accounting to await payment

Billing Methods







Payment

- Payment is the final step in the sales order process, this step is managed by the Financial Accounting department.
- Final payment includes:
 - Posting payments against invoices.
 - Reconciling differences between payment and invoice.
- Payment will create a posting clearing the liability in the A/R account (Accounts Receivable) and increases your bank account.

Document Flow (Belegfluss)

- The document flow and order status feature allows you to find the status of an order at any point in time. The SAP updates the order status every time a change is made to any document created in the customer order management cycle (Order-to-Cash).
- Allows error correction in the sales order process (VA05)

< SAP		Manage Sales (Orders 🗸		q © E				
					€ Q ▼ []	< SAP	Docume	nt Flow	
Order	— >>> B >> Delivery		woice		> 1> Paymer	✓ Details Status Overview	w Display Docu	iment Service Docum	ients Graphic More
Sales Order 4815162342	Outbound Delivery 010 Planned Invoice 08150812					Business Partner 0000025011 The Bike Zone Material DXTR1000 Deluxe Touring Bike (bl	ack)		
 In Process Partially shipped Partially invoiced 	Credit Blocked Shipping Planned on 23.08.2015 Not Picked	Invoice pla 24.02. 20					<u></u>	<u>1 N.É. A.</u>	
	Outbound Delivery 020	Customer Invoice 08150813	Credit Memo FN-2187	Accounting Document 1709	Planned Payment Document	Document	Quantity Unit	Ref. Value Currency	On Status
	Shipped	> Shipped	In Process	AD Issue	>	Inquiry 001000002 / 10	5 EA	15.000,00 USD	07.05.2018 Completed
	Shipped on 23.08.2015	Shipped on 23.08.2015	Shipped on 23.08.2015	Posted on 25.08.2016	Planned on 28.08.20	✓	5 EA	14.012,50 USD	07.05.2018 Completed
	23.00.2013	20.00.2010	20.00.2010	Not Picked		✓	5 EA	14.012,50 USD	07.05.2018 Completed
	Outbound Delivery 030	Credit Memo FN-2187		Accounting Document 1710		Ultrace 2000 - 10 Outbound Delivery 0080000009 / 10	5 EA		07.05.2018 Completed
						Picking Request 20180508 / 10	5 EA		08.05.2018 Completed
	Shipped	AD Iss	ue	(1) AD Issue		GD goods issue:delvy 4900005090 / 1	5 EA	7.000,00 USD	08.05.2018 Complete
	Shipped on 23.08.2015	Invoice du 27.08.201		Shipping Planned on 23.08.2015		Invoice 0090000005 / 10	5 EA	14.012,50 USD	08.05.2018 Completed
				Not Picked		Accounting Document 0090000005	5 EA		08.05.2018 Cleared

Agenda Sales and Distribution

- Organizational Structure
- Master Data
- Order-to-Cash Process
 - Create Customer Order
 - Orchestrate Fulfillment Process
 - Invoice Customer
- Summary



Voluntary Exercise

Sales and Distribution





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- The lead to cash process describes the customer interaction from the first meeting to the preparation of an offer, the delivery of goods to the receipt of payment
- Sales and distribution is mapped via the order-to-cash sub-process with the three activities (creating a customer order, material provision and invoicing)
- The most important SD master data are customer, material, and condition master records
- The most important transaction data are the sales order, delivery document and the billing document (invoice)
- The document flow and the order status feature make it possible to find the status of an order at any point in time
- The business partner object summarizes master data such as customers and suppliers in one business object