Sales and Distribution (SD)

Curriculum: Introduction to S/4HANA using Global Bike



Teaching material - Information



Teaching material - Version

- **3.3** (May 2019)
- Software used
 - S/4HANA 1809
 - Fiori 2.0
- Model
 - Global Bike
- Prerequisites
 - No Prerequisites needed

Module Information



Authors

- Bret Wagner
- Stefan Weidner
- Babett Ruß



Target Audience

Beginner

Module Information



Learning Objectives

Understand an integrated order-to-cash cycle

Functionality

- Sales
- Shipping and Transportation
- Billing
- Credit Management
- Foreign Trade

Unit Overview

- SD Organizational Structure
- SD Master Data
- SD Processes
 - Order-to-Cash Process
- Innovations in S/4HANA

SD 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

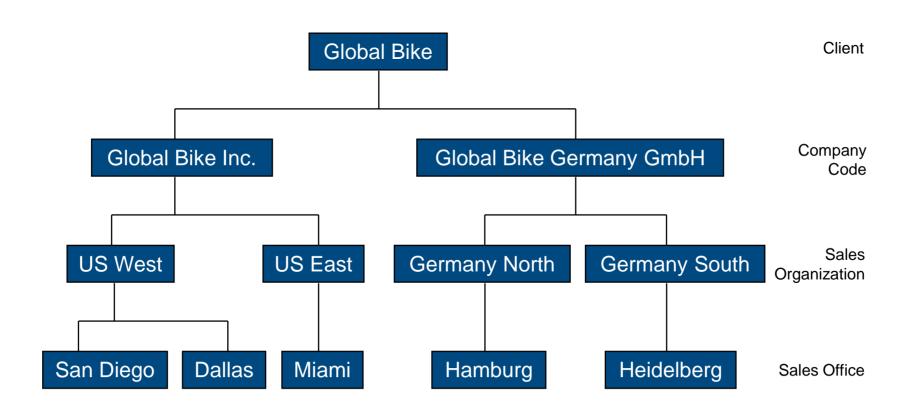
Distribution Channel

- The way in which products or services reach the customer
- Typical examples of distribution channels are wholesale, retail, or direct sales

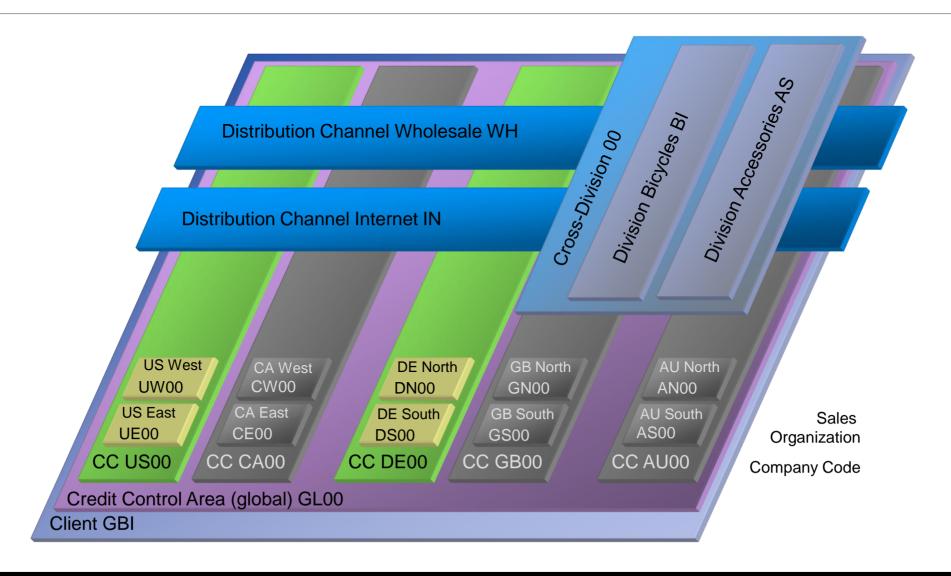
SD Organizational Structure

- Division
 - 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

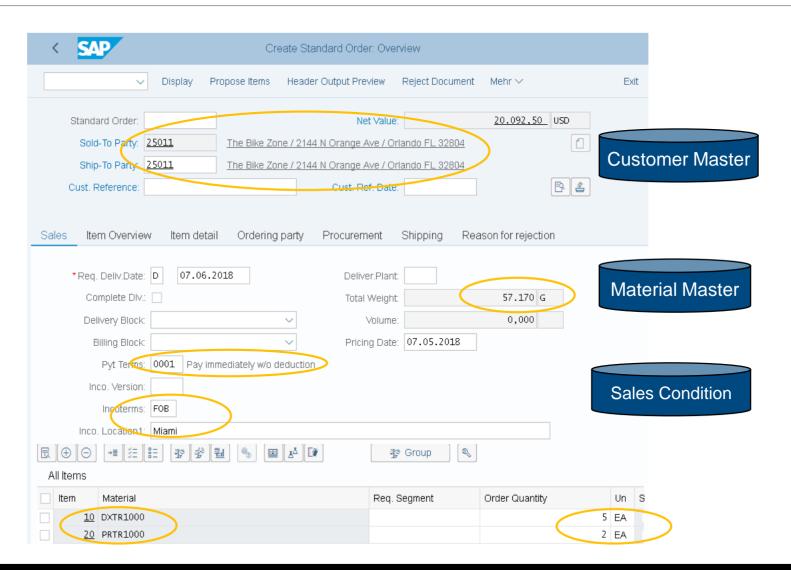
GBI Structure for Sales and Distribution



GBI Enterprise Structure in SAP ERP (Sales)

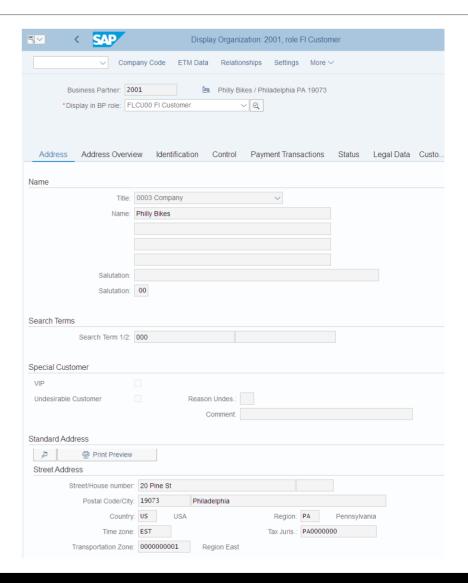


SD Master Data



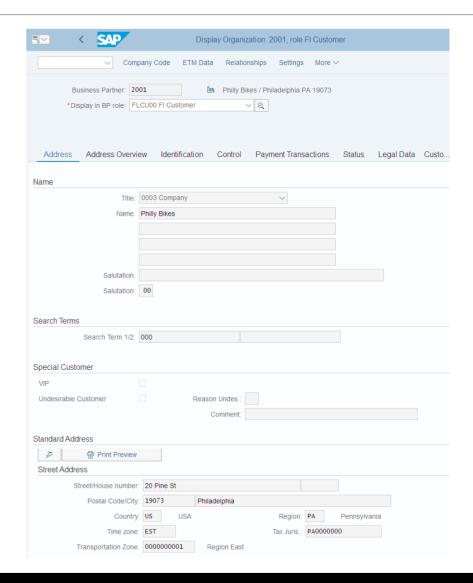
Customer Master Data

- 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

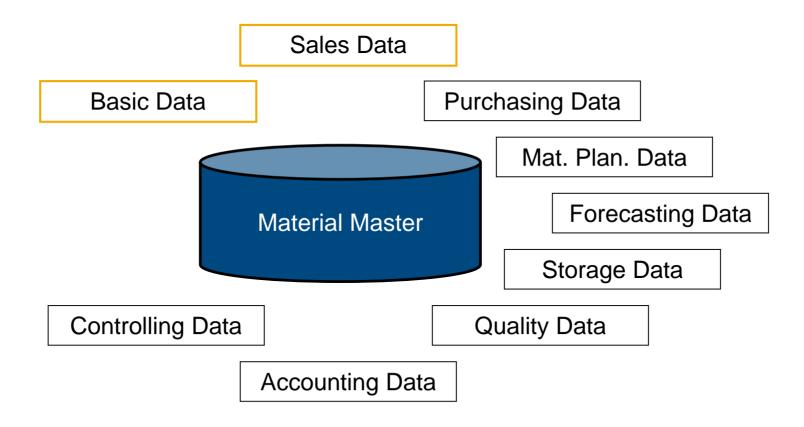


Customer Master Data

- The customer master information is divided into 3 areas:
 - General Data
 - Company Code Data
 - Sales Area Data



Material Master Views

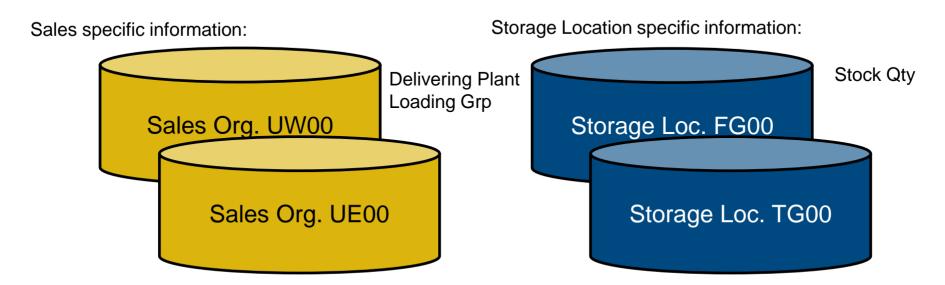


Material Master

General Information relevant for the entire organization:

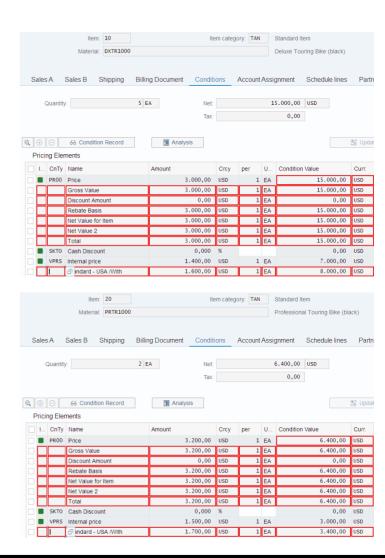


Weight Unit of Measure



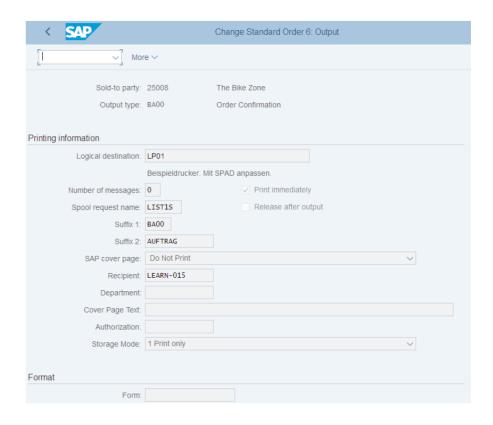
Condition Master Data (Pricing)

- 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

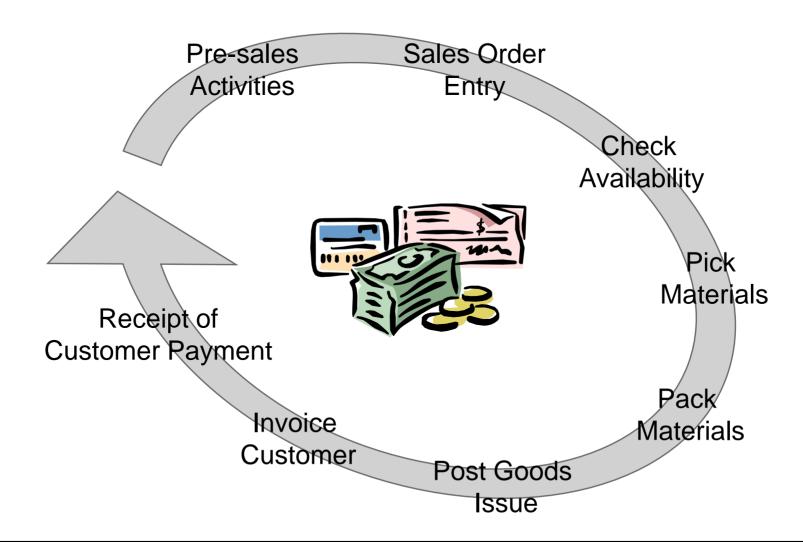


Output

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



Sales Order Process

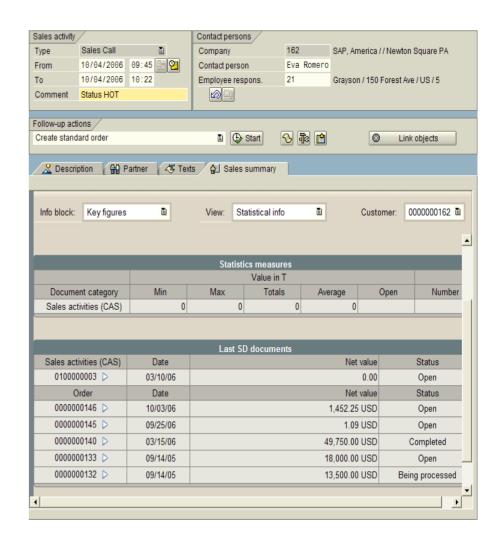


Pre-Sales Activities (CRM Light)

- Sales Support is a component of SD that assists in the sales, distribution, and marketing of a companies 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 ultimate 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



Inquiry

- 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

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: Currency USD Terms of payment Payable immediately without deduction

Terms of delivery FOB San Diego

Weights (gross/net) - Volume - Mark

Gross weight 57,170 G Net weight 57,170 G

Please see our promotional offer enclosed. Delivery as long as stocks last.

Material Description Qtv Price Price unit Value 000010 DXTR1000 Deluxe Touring Bike (black) 5 EA 3,000.00 USD 1 EA 15,000.00 000020 PRTR1000 Professional Touring Bike (black) 2 EA 3,200.00 USD 6,400.00 Final amount 21,400.00

Quotation

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.

Company
The Bike Zone
2105 N Lewis Ave
Portland OR 97227

Quotation

Number/Date 20000000 / 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 without deduction

Currency USD

Terms of delivery FOB San Diego

Weights (gross/net) - Volume - Mark

Gross weight

57,170 G Net weight

57,170 G

Please see our promotional offer enclosed. Delivery as long as stocks last.

Item	Material	Description	
	Qty	Price Price unit	Value
000010	DXTR1000	Deluxe Touring Bike (black)	
	5 EA	3,000.00 USD 1 EA	15,000.00
	Material	50.00- USD 1 EA	250.00-
	% Discount from N	5.000- %	737.50-
	Net Value for Ite	2,802.50 USD 1 EA	14,012.50
000020	PRTR1000	Professional Touring Bike (black)	
	2 EA	3,200.00 USD 1 EA	6,400.00
	% Discount from N	5.000- %	320.00-
	Net Value for Ite	3,040.00 USD 1 EA	6,080.00
Final .	amount		20,092.50

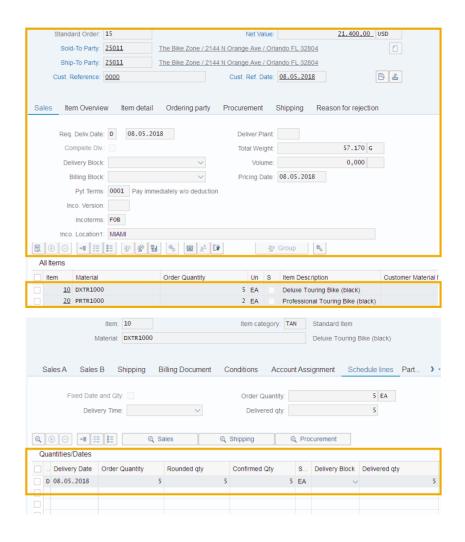
Sales Order

- 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

Sales Order

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

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



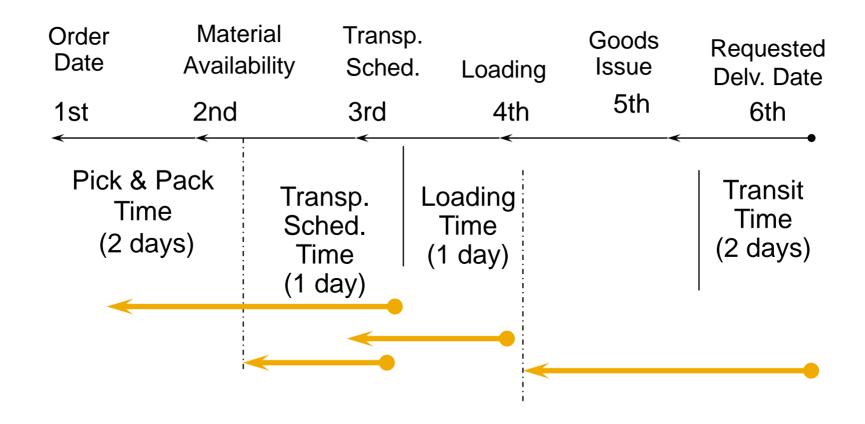
Sales Order

- The sales order contains all of the information needed to process your customers request, the following information is determined for each sales order:
 - Delivering Schedule
 - Shipping point and route determination
 - Availability Check
 - Transfer of requirements to MRP
 - Pricing
 - Credit limit check

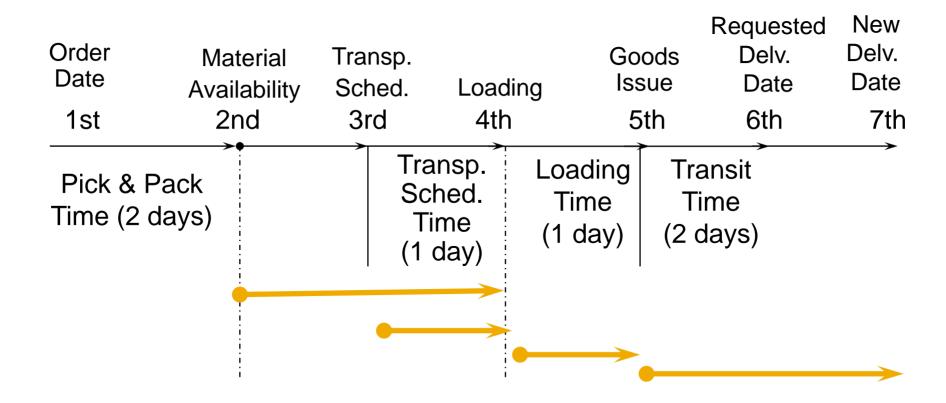
Delivery Scheduling

- 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

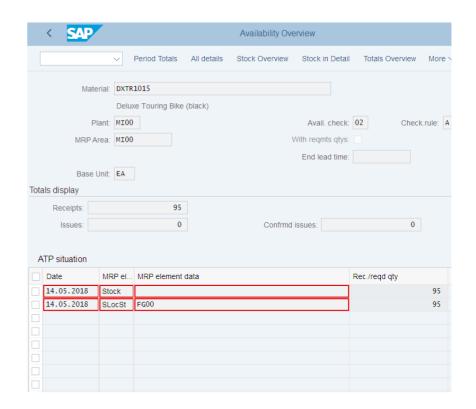


Shipping & Route Determination

- 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 YOU



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 price, 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 can be set-up so we can't manually enter them

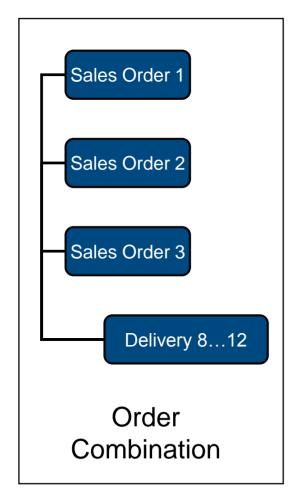
Credit Check

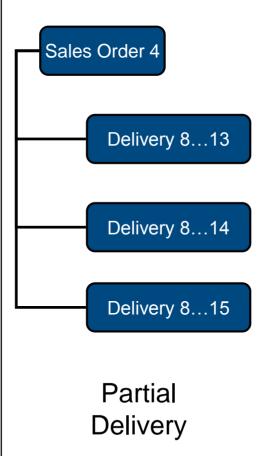
- Allows your company to manage its credit exposure and risk for each customer by specifying credit limits.
- During the sales order process the system will alert the sales rep about the customers credit situation that arises. If necessary, the system can be configured to block orders and deliveries.

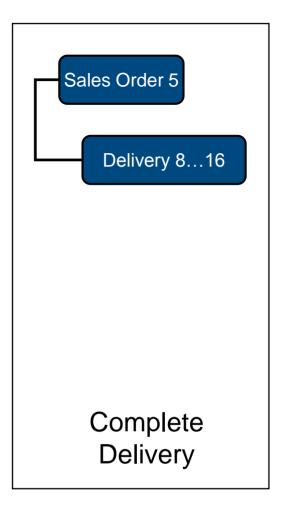
Shipping & Transportation

- 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
 - Post Goods Issue
- Integrated with the Material Management (MM), extended Warehouse Management (eWM) and Finance (FI) modules

Shipping







Delivery Creation

- Checks order and materials to determine if a delivery is possible delivery block (hold), completeness
- Confirms availability
- Confirms export/foreign trade requirements
- Determines total weight & volume

Delivery Creation

- Generates packing proposal
- Calculates 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

Delivery Document

- The Delivery Document initiates the delivery process and is the control mechanism for this process
 - Picking
 - Packing
 - Loading
 - Posting Goods Issue
- Changes to delivery are allowable products, quantities

Picking

- 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 (customer preference and UCC-128 considerations)
- 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

- Event that could indicates the legal change in ownership of the products
 - it's recognition that the goods have left the premises of the seller. Legal change in ownership depends on the Incoterm 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

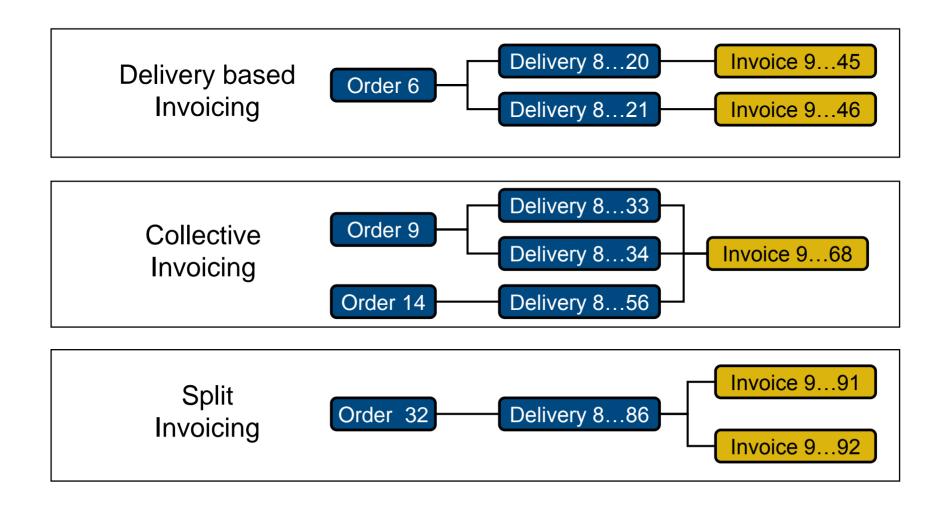
Billing

- 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.

Billing Documents

- 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

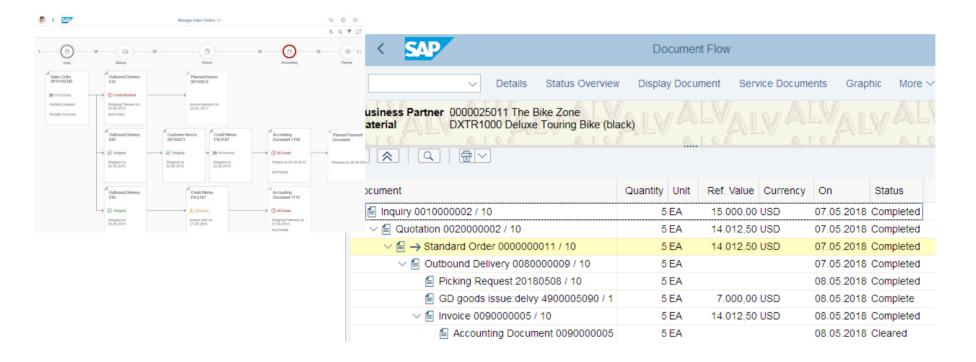


Payment

- 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 and increases your bank account.

Document Flow

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).



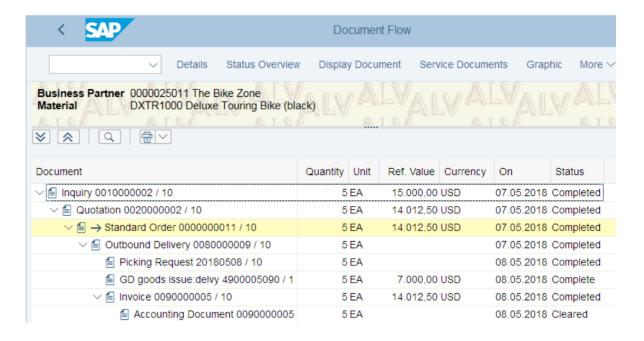
Sales Order Process Debugging

"Never again did I learn so much in such a short time, because twenty participants made mistakes for me! You cannot make so many mistakes all alone"

SAP Co-founder Klaus Tschira
on his experiences teaching COBOL
to clients at IBM

Sales Order Process Debugging

- Document Flow
- Gives Order Process Status
- List of Sales Orders (VA05)
 - Tool to Find Order
 - Need student's user id/data set number.

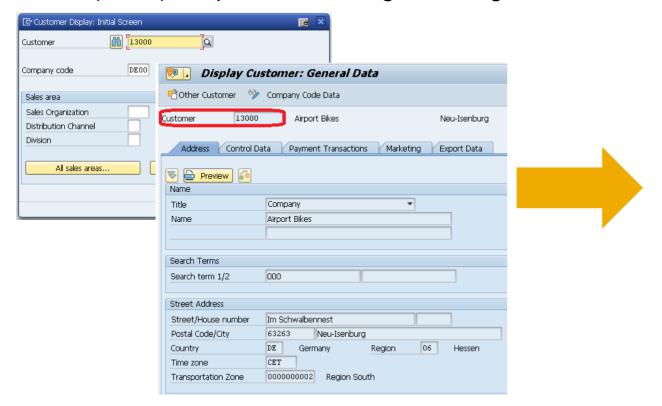


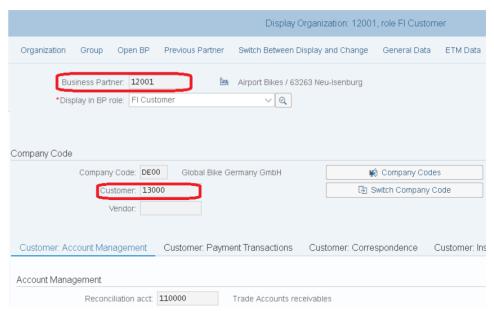
Innovations in SAP S/4HANA Focus Sales and Distribution in GBI

- 1) Business Partner (BP) is the Single Point of Entry for master data such as customer, vendor, contact person
 - Transaction BP replaces FD01, FD02, FD03, FD05, FD06, FD0 FK01, FK02, FK03, FK05, FK06, FK08 MAP1, MAP2, MAP3 MK01, MK02, MK03, MK05, MK06, MK12, MK18, MK19, V-03, V-04, V-05, V-06, V-07, V-08, V-09, V-11, V+21, V+22, V+23, VAP1, VAP2, VAP3 VD01, VD02, VD03, VD05, VD06 XD01, XD02, XD03, XD05, XD06, XD07 XK01, XK02, XK03, XK05, XK06, XK07
- 2) Credit Management has to be initialized in S/4HANA to perform processes in distribution
- 3) Simplification in SD Analytics
 - No aggregates are formed via data for analytical processes. S/4HANA analyzes are based on ODATA and Open CDS (Core Data Services). These data are stored directly on the database and they grow there over time.

Innovations in SAP S/4HANA Business Partner

- 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





A unique business partner number is assigned to customer 13000. This business partner number is assigned to various roles such as the customer, creditor or contact person.

Relationship: n:m

Innovations 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.
- 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.

Innovations in SAP S/4HANA Credit Management

- In contrast to ERP, the component Credit Management (FI-AR-CR) is not available as part of S/4HANA
- Equivalent: SAP Credit Management (FIN-FSCM-CR)
 - In ERP there was the possibility to not use the function FI-AR-CR, but FIN-FSCM-CR has to be initialized.
 - It helps companies to identify the risk of loss of receivables against their business partners at an early stage, and to make credit decisions efficiently and partially automated.
- Recommended for:
 - Companies with a high number of business partners
 - Companies that want to merge internal and external data of a business partner into an own credit assessment or evaluation.
 - Companies that have an extremely distributed system landscape often have problems with the consolidation of information on the purpose of credit decisions



Innovations in SAP S/4HANA Simplification in SD Analytics

- Analyzes are based on ODATA and Open CDS (Core Data Services)
- stored directly on the database

 Data grow there over time
- SD specific business objects such as Sales Order, Customer Invoice, Outbound Delivery and many others in the data base tables VBAK, LIKP and VBRK are represented by CDS views that regulate uniform access to analytical views
 - Is achieved by semantic field names to connect business objects such as customers, materials, etc
 - Predefined analytical view of the CDS queries allows the report to be executed directly on the database, without preformed aggregates
 - Groupings and filters on the fly





Thank you!