

**SAP University Alliances**

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# Enterprise Asset Management (EAM)

**Product**

SAP ERP 6.0 EhP7  
Global Bike Inc.

**Level**

Beginner

**Focus**

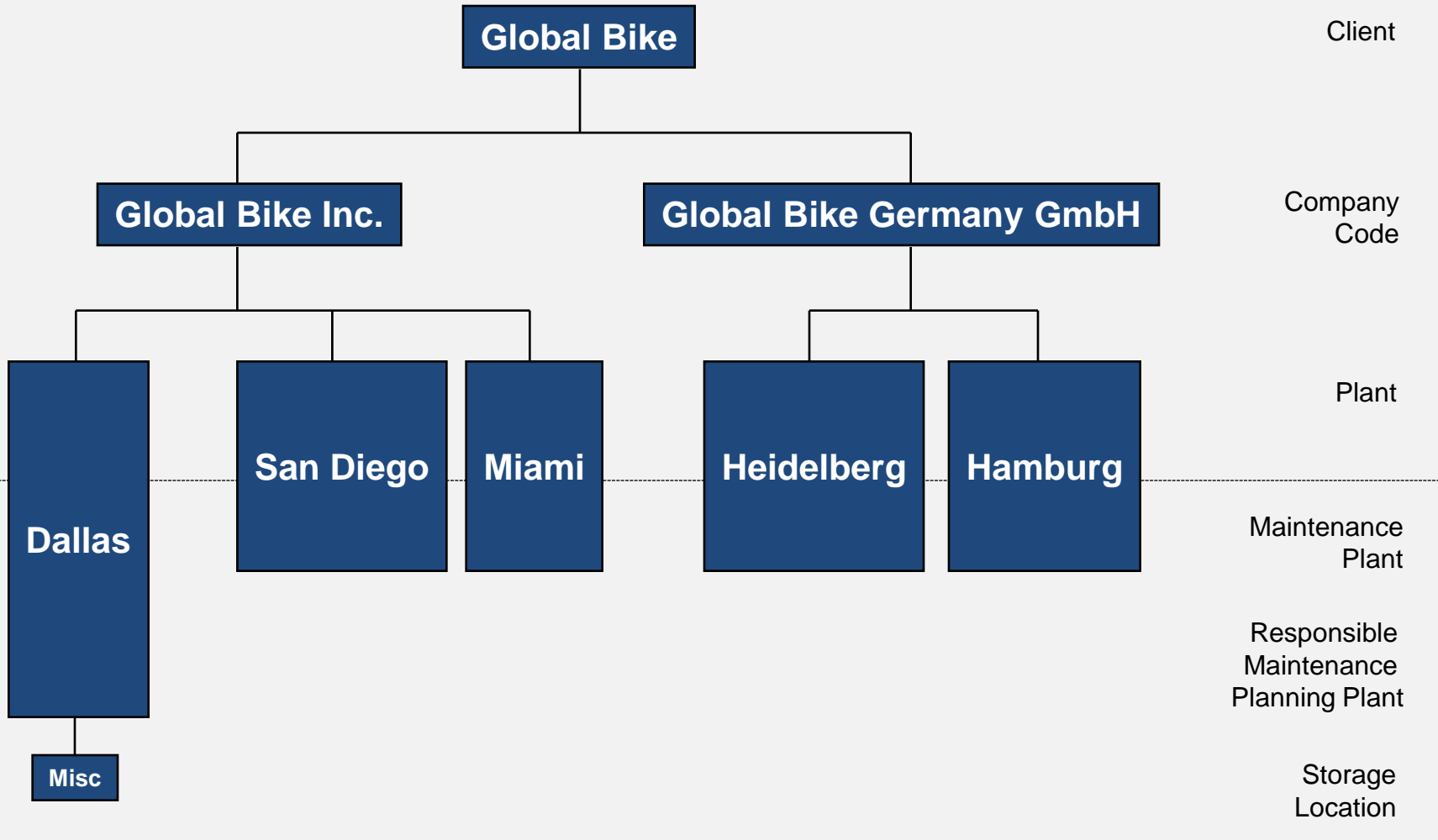
Cross-functional integration  
Enterprise Asset Management



- Introduction to SAP
- Navigation
- Introduction to GBI
- Sales & Distribution
- Material Management
- Production Planning
- Financial Accounting
- Controlling
- Human Capital Management
- Warehouse Management
- Project System
- **Enterprise Asset Management**
- Customer Service

- Planned Repair
- Instant Repair
- External Assignment
- Refurbishment
- Preventive Plant Maintenance
- Stateful Plant Maintenance
- Project oriented Plant Maintenance
- Shift Reports and Shift Notes

- EAM Organizational Structure
- EAM Master Data
- EAM Processes



- Client
  - An independent environment in the system
- Company Code
  - Smallest org unit for which you can maintain a legal set of books
- Plant
  - Operating area or branch within a company
    - Manufacturing, distribution, purchasing or maintenance facility
- Storage Location
  - An organizational unit allowing differentiation between the various stocks of material in a plant
  - Is required to store spare parts

- Maintenance Plant
  - Plant in which the technical objects of a company are installed
- Maintenance Plant oriented organizational units:
  - Location (e.g. building number, coordinates)
  - Plant Section (responsibility for working assets)
  - Work Center (process measures of plant maintenance)
- Maintenance Planning Plant
  - Plant in which maintenance tasks are planned and prepared
- Planning Plant oriented organizational units :
  - Maintenance Planner Group (responsible for planning and processing maintenance tasks)
  - Work Center

Storage Location

MI00

MI00

MI00

TG00

FG00

MI00

MI00

MI00

TG00

FG00

MI00

Central Purchasing Organization (global) GL00

Purchasing Org. US00

CA00

PO DE00

AU00

Purchasing Group North America  
N00

PGr Europe  
E00

Asia  
A00

Dallas  
DL00

Miami  
MI00

S. Diego  
SD00

Toronto  
TO00

Heidelb.  
HD00

Hamburg  
HH00

Perth  
PE00

Plant

CC US00

CA00

CC DE00

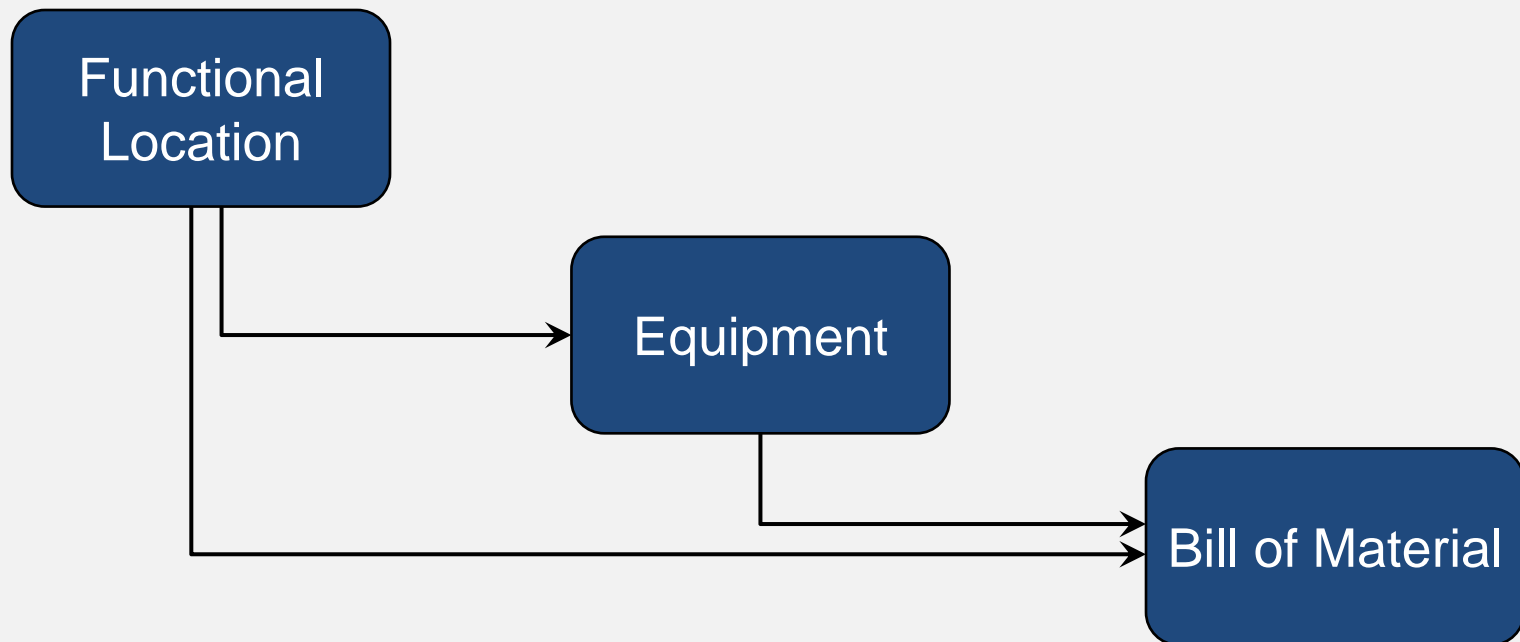
AU00

Company Code

Client GBI



- Functional Location – Master Data
- Equipment – Master Data
- Bill of Material



- Hierarchal organized structure which represents e.g. a technical system, a building or a part of it
- Immobile character
- Structures maintenance objects according to following criteria:
  - spatial (e.g. buildings)
  - technical (e.g. pumping plant)
  - functional (e.g. production of bicycle frames)
- Division in maintenance relevant units
- Functional locations can contain different types of equipment

- Structural depiction of a technical plant
  - Structure indicator makes hierarchy levels visible
- Planning and performing maintenance tasks
- Verification of maintenance tasks
- Data gathering for extended periods of time
- Cost monitoring
- Behavioral analysis individual areas under different conditions

- Functional Location Master Data
  - contains all information around the functional location
  - Is required to perform maintenance activities
- Information in four views:
  - General
  - Location
  - Organization
  - Structure

The screenshot displays the SAP 'Display Functional Location: Master data' interface. At the top, the title bar reads 'Display Functional Location: Master data'. Below the title bar, there are several icons and a search bar. The main data area shows the following fields:

Functional loc.	DL00-S-SHFL1000	Cat.	M	Technical system - st...
Description	Shop Floor			
Status	CRTE			

Below the data area, there are four tabs: 'General', 'Location', 'Organization', and 'Structure'. The 'Organization' tab is currently selected, showing the following data:

Account assignment			
Company Code	US00	Global Bike Inc.	Dallas
Business Area	B100	Bikes	
Asset		/	
Cost Center	NAPM1000	/	NA00 Plant Maint. Costs
WBS Element			
StandgOrder			
SettlementOrder			
Responsibilities			
Planning plant	DL00	Plant Dallas	
Planner group	P00	Dallas Group	972-555-3000
Main WorkCtr	MANT1000	/	DL00 Maintenance
Catalog profile			

- Individual and autonomous technical unit
- Physical object for which maintenance tasks are planned and performed
- Mobile character
- Examples: pumps, personal computers, circulation fan, engines
- Equipments can be placed in functional locations

- Administration of individual objects and data
- Verification of maintenance tasks
- Object oriented cost monitoring
- Data gathering and analysis for extended periods of time

- Equipment Master Data
  - contains all information around equipment
- Information in four views:
  - General
  - Location
  - Organization
  - Structure

**Display Equipment : Location**

Class overview Measuring points/counters

Equipment: 1100000000 Category: 6 Equipment/Assets

Description: Circulation Fan

Status: INST

Valid From: 01/01/2010 Valid To: 12/31/9999

General Location Organization Structure

**Location data**

MaintPlant	DL00	Plant Dallas
Location	DALLAS TX	GBI MFG
Room		
Plant section	1	Hiro Abe 972-555-3000
Work center	MANT1000	Maintenance
ABC indic.	C	Relatively unimport.
Sort field		

**Address**

Name	
Street	
Location	
Telephone	
Fax	

- Complete formally structured list of all components
- Material BOMs can be allocated to functional locations or equipment
- Three types of BOMs in Enterprise Asset Management:
  - Material BOMs
  - Equipment BOMs
  - Functional location BOMs



- Structuring of objects
- Service parts planning in maintenance orders and maintenance task lists
- Within plant maintenance BOMs are used, if similar object should be maintained

1. Notification

2. Planning

3. Controlling

4. Implementation

5. Completion

- Malfunctions and other requirements are gathered in notifications
  
- Content:
  - Technical object
  - Location data
  - Reported by
  - Description
  - Notification date
  - Breakdown
  - Damage location, damage cause code

**Create PM Notification: Malfunction Report**

Notification %0000000001 M2 Circulation fan defective

Notific. Status OSNO

Order

Notification Reference object Malfunction, breakdown Location data Items Tasks Activities

**Reference object**

Functional loc. DL00-S-SHFL1000 Shop Floor

Equipment 10000000 Circulation Fan

Assembly

**Subject**

Coding

Description Circulation fan defective

Subject Long Text

07/31/2013 13:38:36 GBIALL-000 (GBIALL-000)

Circulation fan does not work correctly. Exchange Filter.

**Responsibilities**

Planner group P00 / DL00 Dallas Group

Main WorkCtr MANT1000 / DL00 Maintenance

Department resp

Person respons.

Reported by GBI-000 Notif.date 07/31/2013 13:21:21

**Malfunction data**

Malfunct. start 07/31/2013 13:21:21 Breakdown

Malfunct.end 00:00:00 Breakdown dur. H

**Item**

Object part VENT 1003 Filter

Damage VENT 1002 Filter Wear

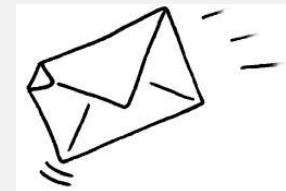
Text

Cause code PM-2000 1004 Normal Wear and Tear

Cause text High dust accumulation

Entry 1 frn 1

- Functions as requirement analysis and documentation maintenance activities
- Contains rather technical information
- Describes an exceptional state
- Requests necessary maintenance measures
- Already done works can be documented



- Order creation and order planning on basis of notified requirements
  
- Order planning contains:
  - Performed steps (Operations)
  - Needed materials (Components)
  - Required tools

**Create Maintenance order : Central Header**

Order: PM01 %00000000001 Circulation fan defective

Sys.Status: CRTD MANC NTUP

HeaderData | Operations | Components | Costs | Partner | Objects | Additional

Person responsible

PlannerGrp: P00 / DL00 Dallas Group

Mn.wk.ctr: MANT1000 / DL00 Maintenance

Person res...: [ ] [ ]

Notifctn: %00000000001

Costs: [ ] USD

PMActType: 001 Inspection

SystCond.: [ ]

Address: [ ]

Dates

Bsc start: 07/31/2013 Priority: [ ]

Basic fin.: 07/31/2013 Revision: [ ]

Reference object

Func. Loc.: DL00-S-SHFL1000 Shop Floor

Equipment: 10000000 Circulation Fan

Assembly: [ ]

Malfnctn data | Damage | Notif. dates

Damage: VENT 1002 Filter Wear [ ]

Cause: PM-2000 1004 Normal Wear and Tear High dust accumulation

First operation

Operation: Circulation fan defective Cckey Calculate duration [ ]

WkCtr/Plnt: MANT1000 / DL00 Ctrl key: PM01 Acty Type: MLABOR [ ] PRT

Work durtn: 2.0 HR Number: 1 Oprtn dur.: 2.0 HR [ ] Comp.

Person. no: [ ] [ ]

- Maintenance order creation in maintenance plans, notifications or without any reference objects
- Responsibilities (external or internal) are allocated
- Material reservations and where-used-lists
- Production resource (e.g. protective clothing)
- Cost estimation



- Different maintenance order verification
- Order release
- Contains the following functions:
  - Mass change or mass editing
  - Availability check
  - Capacity requirements planning
  - Order release
  - Printing shop floor papers



- Implementation of maintenance orders
- Planned/unplanned material withdrawal (goods issue)
  
- Composition of completion:
  - Time confirmation
  - Technical completion confirmation
  - Technical completion
- Billing after successful technical completion

