Procurement Logistics (MM) in SAP

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Presenting the functionality of SAP’s Materials Management Module


What is Procurement Logistics?
- Procurement Logistics = Materials Management (MM)
- "The heart of SAP R/3"
- Functions for purchasing, inventory management, warehouse operations, invoice verification
- Used by Purchasing department and Warehouse

Integration with other SAP modules:
- Material needs from PM, SM, SD, etc. (requisitions, reservations)
- Accounting documents sent to FI
- Purchasing costs registered in CO
- Quality inspection of materials part of QM
- Materials procured in projects from PS

MM Organizational Structures

SAP Procurement Structures

client
company code
purchasing organization
plant
storage location

Organizational Structures: def. 1
- Client:
  - Highest hierarchical level in SAP
  - All business areas to be integrated into SAP should be under one client
  - Some control tables (e.g. currency rates, measurement units)
  - Some master data: (e.g. basic vendor and customer data)
- Usage:
  - Can be used to differentiate between a Development, Quality Assurance, and Production system within R/3

Organizational Structures: def. 2
- Company Code:
  - Represents a legal/tax entity
  - Level of external reporting or legal sets of books
  - Maintains its own profit and loss statements and balance sheets
- Example: Hydro Agri Europe solution has 46 legal company codes
Organizational Structures: def. 3
- **Purchasing organization:**
  - Responsible for procurement for one or more plants
  - Responsible for negotiating pricing and delivery terms
  - Assigned to a company code where inventory is legally tracked or costs are legally incurred (except for floating purch. org.)
  - Vendors defined at purchasing organization level
  - Two typical configurations:
    - One purchasing organization for each company
    - One purchasing organization for each plant

Organizational Structures: def. 4
- **Plant:**
  - Manufacturing facility, warehouse, or location that stocks, manages, and valuates inventory
  - Usually a physical site
  - Assigned to a company code
  - One or more purchasing organizations assigned to plant
  - Materials defined at plant level
  - Usage:
    - MM procures materials to plant
    - PM maintains facilities at plant
    - PP produces products at plant
    - SD sells products from plant

Organizational Structures: def. 5
- **Storage location:**
  - Location within a plant where inventory is stored
  - Usage:
    - A physical storage place at plant
    - Grouping of materials in types or classes

- **Purchasing group:**
  - Corresponds to individual purchasers or group of purchasers
  - A purchasing organization contains one or several purchasing groups

Procurement of Stock Material
- When materials are needed, requisitions are sent to the purchasing department
- The materials are ordered and later received into the warehouse
- Stock value is updated
- The invoice is matched against what was received and later paid by the financial department

Value chain:
- Procurement
- Production
- Sales
- Maintenance

Procurement of Stock Material: cont.

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- **Contract** should be **created**
- **Scheduling** agreement proc. for stock mat.
- **Contract** processing for stock material
- **Scheduling** agreement is **to be created**
- **Contract** is **sent**
- **Purchase order** process for stock mat.
- **Purchase order** is transmitted
- **Material** arrived
- **Goods receipt** processing
- **Goods** are to be returned
- **Transfer order** created automatically
- **Material** is placed in stock
- **Placement in storage** processing
- **Quality** processing
- **Material** is not accepted
- **Material** is accepted
- **Invoice** w/o ref. has arrived
- **Invoice** with ref. has arrived
- **Invoice** posted and released for payment
- **Invoice** is not accepted
- **Vendor processing**
- **Invoice processing**
- **Accounting**

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**Procurement of Consumable Materials**

- Some materials are not to be stored in stock
  - production materials
  - project materials
  - replacement items in plant maintenance
- **SAP implementation**:
  - Consumable materials not linked to any stock account
  - Procurement costs not included in inventory accounting, but posted to job order or cost center
- **Example**:
  - Pencils, buying a Handspring Visor on the project's budget

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**Procurement of Consignment Materials**

- Consignment material
  - owned by supplier
  - stored at customer's facility
- **Purpose**:
  - faster maintenance delivery
  - customer do not need to pay before item in production
  - avoid production delays
- **SAP implementation**
  - used like any other material type
  - vendor-owned inventory tracked like any other stock type
  - not valued on the company's books before issued to requester.

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**Procurement of Subcontract Work**

- Subcontract orders:
  - outsourcing of manufacturing process
  - company purchases finished product, but provides some or all of the materials to the subcontractor
- **Inventory value of produced material**:
  - net purchase order value + value of component materials posted out of inventory
- **SAP implementation**:
  - create subcontract purchase order which specify component materials to send to subcontractor
  - when material is received, the quantities and values of component materials are posted out of inventory

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Stock Transfer Processing

- Stock transfer:
  - Handling inter-site inventory transfers of materials
  - "Transport orders" are used for transfers of stock between sites (plants)
- Procurement price:
  - Valuation of material + costs of delivery
- Planning system may automatically generate transport orders
- SAP implementation:
  - Convert planned transfer to planned order, receive material at issuing plant, issue material, process goods receipt at receiving plant

Conclusions

- Procurement logistics = Materials Management:
  - Procurement of stock materials/consumables/consignment materials, subcontracting, stock transfers, inventory management, invoice management
  - High integrated with other SAP modules
- Procurement logistics functionality:
  - SAP organizational structures: client, company code, purchasing organization, plant, storage location
  - SAP business processes described as EPC models