Module 6
Business Process and ADempeire

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Module Objectives

• Overall ADempiere
• Go through sale cycle
  – Sale module
  – Finance module (Receipt)
• Go through purchase cycle
  – Purchase module
  – Finance module (Payment)
• Hands on
Modules in ADEMPEIRE

- Sale
- Purchase
- Receipt / Payment
- Inventory
- Projects
- Manufacturing
- Projects
- Manufacturing
- Inventory
- Receipt / Payment
- Purchase
- Sale
Module 6.1
Sale Cycle
Sales Cycle (Trading)

Sales
- Proposal / Quotation
- Customers

Store/Shipmet
- Stock card
- DO

Finance
- Dr Cost Cr Inventory
- Invoice
- Dr AR Cr Sale

Accounting
- ERP
  - Invoice/DO
  - Billing
  - Receipt
  - Review
  - Reconcile
  - Reporting
  - Strategic planning

- Customers
- Billing
- Receipt
- Dr Bank Cr AR
Sale Cycle – Quote to Invoice

Sales Cycle Steps

1. Create Sales Order
2. Delivery Order
3. Invoice to Customer
4. Receipt
5. Bank Statement
Sale Order

Document type

1. Proposal
2. Quotation
3. Standard Order
Shipment (Delivery)

Sales Cycle Steps

1. Create Sales Order
2. Delivery Order
3. Invoice (Customer)
4. Receipt
5. Bank Statement
Shipment (Delivery)

**Ways to Create document**

1. Semi - Automatic
2. Automatic

Semi-Automatic with Invoice
Ways to Create document

Manual
- Self entering all data

Semi-Automatic
- Selecting data

Automatic
- Auto generate
Sales Invoice

**Sales Cycle Steps**

1. Create Sales Order
2. Delivery Order
3. Invoice to Customer
4. Receipt
5. Bank Statement
Sales Invoice

Ways to Create document

1. Semi - Automatic
2. Automatic
Sale Invoice

Document type

1. AR Invoice
2. AR Credit Memo
Sales Invoice and Billing

- Print Invoice (by lot)
- Billing (การวางบิล) and Printing (by lot)
Receipt payment from Customer

Sales Cycle Steps

1. Create Sales Order
2. Delivery Order
3. Invoice (Customer)
4. Receipt
5. Bank Statement
Receipt payment from Customer

1. Receipt
   Dr  Bank in transit
   Cr  Payment selection

2. View allocation
   Dr  Payment selection
   Cr  Acct Receivable

3. Bank Statement
   Dr  Bank
   Cr  Bank in transit
Receipt payment from Customer (Partial)

<table>
<thead>
<tr>
<th>Select</th>
<th>Date</th>
<th>Document No</th>
<th>Converted</th>
<th>Open</th>
<th>Applied</th>
</tr>
</thead>
<tbody>
<tr>
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<td>15/03/2011</td>
<td>1000005</td>
<td>-20,000.00</td>
<td>-20,000.00</td>
<td>-20,000.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Select</th>
<th>Date</th>
<th>Document No</th>
<th>Converted</th>
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<th>Trade Discount</th>
<th>Write-off</th>
<th>Applied</th>
<th>Over/Under Payment</th>
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<tbody>
<tr>
<td>☑</td>
<td>14/01/2011</td>
<td>INV1101-00003</td>
<td>26,175.00</td>
<td>26,175.00</td>
<td>0.00</td>
<td>0.00</td>
<td>20,000.00</td>
<td>6,175.00</td>
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<tr>
<td>☑</td>
<td>28/01/2011</td>
<td>INV1101-00005</td>
<td>4,900.00</td>
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<td>0.00</td>
<td>0.00</td>
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</tbody>
</table>

Difference THB: -40,000.00

Note: Prefer selecting a matching invoice and payment pair and process each at a time.
Module 6.2
Purchase Cycle
Purchase Cycle - Requisition to Invoice

Purchase Cycle Steps

1. Create Requisition
2. Complete Purchase Order
3. Material Receipt
4. Create Invoice (Vendor)
5. Make Payment
6. Bank Statement

Open items (Finance)
Payment to Vendor

**ERP process**

1. **Payment**
   - Dr  Payment selection
   - Cr  Bank in transit

2. **View allocation**
   - Dr  Acct Payable
   - Cr  Payment selection

3. **Bank Statement**
   - Dr  Bank in transit
   - Cr  Bank
Payment vs Receipt

Payment Doc Type
1. AP Payment
2. AR Receipt

Receipt = Payment Doc type (AR receipt)
WORKSHOP
Create Purchase Requisition (PR)

- **Login to ADempiere as Client**
  - **Username:** GardenAdmin
  - **Password:** GardenAdmin
  - **Role:** GardenWorld Admin
  - **Client:** GardenWorld
  - **Organization:** HQ

- **Create new Requisition**
  - Open **Requisition** window.
  - Click **New**
    - **Document Type:** Purchase Requisition
    - **User/Contact:** GardenAdmin
    - **Warehouse:** Fertilizer
    - **Price List:** Purchase
  - Click **Save**
  - Click **Requisition Line** tab to create new Line
    - **Product:** Plum Tree
    - **Business Partner:** Tree Farm Inc.
    - Leave other information as default.
  - Click **Save**

- **Complete and Post Requisition**
  - Back to **Requisition** Tab, click on **Complete** button, and **OK**
  - The Document Status become **Completed**
  - **Post** the Document.
  - Click on **Posted** button, you will notice that there is no Accounting Fact.
  - Product info will record it as ‘Reserved Quantity’ (Go to View and Product info)

The Requisition document can be created by many ways, i.e.,
- Manually
- By Running Replenishment Reports
- By Running MRP

In this training, we only test doing it manually.
Create Purchase Order (PO)

Create PO can be created in 3 ways
1. Manual
2. Semi Manual, use info from Requisition
3. Auto, use Create PO from Requisition process

• Create PO from Requisition
  - Click on Create PO from Requisition process
    - **Requisition:** <previously created PR#>
    - **Organization:** Fertilizer
    - **Warehouse:** Fertilizer
  - Click Start
  - ADempeire will find all matching PR and convert them to PO. Please remember the newly created PO number,

• Review the newly created PO
  - Open **Purchase Order** window
  - Click on the Grid View icon to see the list new PO.
  - Review the line item on **PO Line** tab.

• Complete and Post PO
  - Back to **Purchase Order** Tab, click on **Complete** button, and OK
  - The Document Status become **Completed**
  - **Post** the Document.
  - Click on **Posted** button, you will notice that there is no Accounting Fact.
  - Product info will record it as ‘Ordered Quantity’. (Go to View and Product info)
Print Preview Purchase Order

- To print out the Purchase Order Form, click on **Print Preview** icon on **Purchase Order** window.

- User can later on, **manage, print, email, export or archive as internal document.**

Later on we will be learning how to create and manage reports.

- ADempeire’s Print Format
- Integration with Jasper Report
- Financial Reports
Material Receipt

- **Receipt Material with PO Reference**
  - Open **Material Receipt** window
  - Click **New**
    - **Business Partner**: Tree Farm Inc.
  - Click **Save**
  - Click **Create Line From** button
  - Select **Purchase Order** then check on Product Line to receive. Click **OK**.

- **Complete and Post Material Receipt**
  - Back to **Material Receipt** Tab, click on **Complete** button, and **OK**
  - The Document Status become **Completed**
  - **Post** the Document.
  - Click on **Posted** button, and notice the **Accounting Fact**.
    - DR  Product Assets
    - CR  Not invoiced receipts

- **Review the Receipt Line**
  - Click on **Receipt Line** tab
  - Review the line item on **Receipt Line** tab.

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In most ERP systems, we need to know the matched PO when receiving material. Otherwise, we need to contact Purchasing Department.

In ADempiere ERP, in addition to that, we can also receive material without knowledge of the PO. Then, we can do the Matching to PO later using **Matching PO-Receipt-Invoice** form. This gives a lot of flexibility.
Invoice (Vendor)

- Invoicing with a Material Receipt reference
  - Open Invoice (Vendor) window
  - Click New
    - Document Number: (use default)
    - Business Partner: Tree Farm Inc.
  - Click Save
  - Click Create Line From button
  - Select Receipt then check on Product Line to receive. Click OK.

- Complete and Post Invoice (Vendor)
  - Back to Invoice Tab, click on Complete button, and OK
  - The Document Status become Completed
  - Post the Document.
  - Click on Posted button, and notice the Accounting Fact:
    - DR    Inventory Clearing
    - CR    Account Payable Trade

- Review the Invoice Line
  - Click on Receipt Line tab
  - Review the line item on Receipt Line tab.

Like the material receipt activity, ADempiere has flexibility when entering an invoice from a vendor or supplier. You can create an invoice document with or without knowing the MM Receipt document reference.
Evaluating Matched Invoice

- In our example, as we create use **create lines from** Receipt, the Invoice and Receipted will be **matched** automatically. We can review it by go to **Matched Invoice** window.

- In real life, the posting should be done automatically by account posting engine and we don’t have worry. But in this case, we will do it manually.

- **Click to Post** the **Matched Invoice** and generate **Accounting Fact**.
  - DR – Not invoiced receipts
  - CR – Product Expense
## Summary of Material Receipt and Invoice (Vendor) accounting facts

<table>
<thead>
<tr>
<th>Window</th>
<th>Document</th>
<th>DR/CR</th>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material Receipt</td>
<td>MM Receipt</td>
<td>DR</td>
<td>Product Asset</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CR Not Invoiced Receipts</td>
<td>45</td>
</tr>
<tr>
<td>Matched Invoice</td>
<td>DR Not Invoiced Receipts</td>
<td>45</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CR Product Asset</td>
<td>45</td>
</tr>
<tr>
<td>Invoice (Vendor)</td>
<td>AP Invoice</td>
<td>DR</td>
<td>Inventory Clearing</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CR Account Payable Trade</td>
<td>45</td>
</tr>
</tbody>
</table>

With this journal, you know that the final result of the accounting facts is **debit Product Asset against credit Account Payable Trade**.

If this is not for Product item, but Product Service, the Account Fact will be **Product Expense** instead of Product Asset.
Outstanding Liabilities

- View Outstanding Liabilities
  - Open Business Partner window
  - Lookup for Business Partner Name = Chemical Product, inc.
  - Review Open Balance field

With this information, ADempiere tells us the value of the **total liabilities** that we have in the Open Balance field. The value is **-45**. If we have more than one invoice that belongs to this vendor, the Open Balance will sum up all of the liabilities to this vendor. In this case, we have one unpaid AP Invoice document for Chemical Product, inc., which has 45 as the invoice value.
Purchase Cycle – Requisition to Invoice

Purchase Cycle Steps

1. Create Requisition
2. Complete Purchase Order
3. Material Receipt
4. Create Invoice (Vendor)
5. View unpaid Invoice
6. Make Payment
7. Create Bank Statement
View Unpaid Invoices

- View Unpaid Invoices
  - Open **Open Items** report

- As this is Purchase cycle, uncheck **Sales Transaction** checkbox. Click Start button to open report.

- Double click on **Invoice number hyperlink** will open the unpaid invoice report.

- Right click on Invoice number, will open Zoom Across function

- Click on **Invoice** will open **Invoice** window.

<table>
<thead>
<tr>
<th>Business Partner</th>
<th>Grand Total</th>
<th>Invoice Date</th>
<th>Invoice Pay Schedule</th>
<th>Net Days</th>
<th>Open</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tree Farm Inc.</td>
<td>200.00</td>
<td>100000000 - 2002-02-22 00:00:30 - 200</td>
<td></td>
<td>0</td>
<td>200.00</td>
</tr>
<tr>
<td>Tree Farm Inc.</td>
<td>360.00</td>
<td>100000001 - 2002-09-07 00:00:30 - 360</td>
<td></td>
<td>30</td>
<td>360.00</td>
</tr>
<tr>
<td>Seed Farm Inc.</td>
<td>2,731.50</td>
<td>100000002 - 2003-01-22 18:08:37 - 2731.5</td>
<td></td>
<td>30</td>
<td>2,731.50</td>
</tr>
<tr>
<td>Tree Farm Inc.</td>
<td>3,657.50</td>
<td>100000003 - 2003-01-22 18:09:11 - 3657.5</td>
<td></td>
<td>30</td>
<td>3,657.50</td>
</tr>
<tr>
<td><strong>Chemical Product, Inc</strong></td>
<td>45.00</td>
<td>100000010 - 2011-03-09 00:00:30 - 45.00</td>
<td></td>
<td>30</td>
<td>45.00</td>
</tr>
</tbody>
</table>
creating payment proposal

- create payment selection
  - open payment selection window
  - click new
    - name: chemical product pay1001
    - bank account: moneybank - 123456789_1234
  - click save

- select invoice to pay
  - click create from… button
    - business partner: chemical product, inc.
    - only discount: not selected
    - only due: not selected
    - payment rule: <blank>
  - this will find the open invoice that match the criteria.
  - click on the OK button to proceed with a payment selection.

- review payment selection line
  - click on payment selection line to view.
  - we can,

- set a full amount payment
- enter a certain amount in the payment amount field for partial payment
- remove this record from the payment selection line
  - click on prepare payment button.
  - overwrite payment rule to check
  - click ok

in summary, in this step, we are preparing what invoices and how much to pay within this payment.

next step we will print check and complete the payment.
Payment Print/Export

- Payment Print
  - Open Payment Print/Export process
    - Payment Selection: Chemical Product PAY1001
    - Payment Rule: Check
    - Document No: 12345678 (Bank Check No.)
  - Click OK
  - If printer is attached, this will actually print out the Check for payment.
  - During the confirmation to print a remittance advice, you can click on the Cancel button.

After printing the bank check document, ADempiere internally creates an AP Payment document with a Completed status.

- View Payment’s Accounting Fact
  - Open Payment window
  - Lookup for Document No 12345678, this document was automatically generated by Payment Print/Export
  - Since we do manual post this training, Post the Document.
  - Click on Posted button, and notice the Accounting Fact:
    - DR – Payment Selection
    - CR – Checking In-Transfer

[Image of Payment Print/Export window]
In the previous payment activity, the accounting facts or journal entry was generated by using **21300 – Payment selection** in the journal debit position. We have not yet touched the **Account Payable** account.

**ADempiere** has its own workflow for working with **AP Payment** documents. After completing an **AP Payment** document, the system automatically generates the **Payment Allocation** document. As indicated by the document name, the aim of this document is to show us the AP Invoice in which the payment has been allocated.

- **View Payment Allocation's Accounting Fact**
  - Open **View Allocation** window
  - Lookup for Document with **Description = Payment: 12345678[n]**
  - Since we do manual post in this training, let’s **Post** the Document.
  - Click on **Posted** button, and notice the **Accounting Fact**.
    - **DR** – Accounts Payable Trade
    - **CR** – Payment selection
## Summary of Payment accounting facts

<table>
<thead>
<tr>
<th>Window</th>
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<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>View Allocation</td>
<td>DR</td>
<td>Accounts Payable Trade</td>
<td>45</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CR</td>
<td>Payment selection</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>CR Checking In-Transfer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Payment</td>
<td>AP Payment</td>
<td>DR</td>
<td>Payment Selection</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CR</td>
<td>Checking In-Transfer</td>
<td>45</td>
</tr>
</tbody>
</table>

With this journal, you know that the final result of the accounting facts is **debit Account Payable Trade** against **credit Checking In-Transfer**. We will see in the next step, Bank Statement, how this value will be deducted from our asset (Bank Account in this case).
Bank Statement

- Create Bank Statement
  - Open **Bank Statement** window
  - Click **New**
    - **Organization**: Fertilizer
    - **Bank Account**: MoneyBank - 123456789_1234
    - **Name field**: First Bank Statement.
    - **Beginning Balance**: 1,500
  - Click **Save**
  - Click on **Bank Statement Line** tab
  - Click **New**
    - **Statement Line date**: Today
    - **Statement Amount**: -45
    - **Payment (Doc No)**: 12345678 (On Payment Info, deselect Receipt checkbox)
  - Click **Save**

- Post the Document.
- Click on **Posted** button, and notice the **Accounting Fact**.
  - **DR** – Checking Account
  - **CR** – Checking In-Transfer

With your real company bank statement data, you will enter all of the bank statements and perform the necessary reconciliation.

To speed up your bank statement entry, you can use the **Create lines from** button in the Bank Statement tab.
### Summary of Payment accounting facts

<table>
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<td>Accounts Payable Trade</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>CR</td>
<td>CR</td>
<td>Payment selection</td>
<td>45</td>
</tr>
<tr>
<td>Payment</td>
<td>AP Payment</td>
<td>DR</td>
<td>Payment Selection</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>CR</td>
<td>CR</td>
<td>Checking In-Transfer</td>
<td>45</td>
</tr>
<tr>
<td>Bank Statement</td>
<td>DR</td>
<td>DR</td>
<td>Checking In-Transfer</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>CR</td>
<td>CR</td>
<td>Checking Account</td>
<td>45</td>
</tr>
</tbody>
</table>

As you can see here, the **Payment Selection** and **Checking In-Transfer** are in transit or clearing account that could be swept out for the final journal entry format and the final result of the accounting facts is Dr Account Payable with Cr Checking Account.