

iDempiere Fixed Asset User Manual

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Created On	June 12, 2012
Version	0.1

Introduction

The iDempiere Fixed Asset extension package is developed based on the work of these three remarkable men:

1. Robert Klein, who developed the first ever Fixed Assets extension for Compiere
2. Teo Sarca, who modernized Robert Klein's work to use Adempiere more modern document structure. His work was however not properly documented and was influenced with his country local requirement.
3. Redhuan D. Oon (Red1), who took the work published by Teo Sarca, created the migration scripts from the 2Pack, and done some stabilization work. However Red1 somehow mixed Klein's solution to Teo Sarca's which made the design somehow inconsistent.

This work was started from where red1 left. I have spent considerable hours try to understand all those three men's design consideration. Somehow, I decided to recover to Teo Sarca's core design and done the work to (1) repair bad codes and AD Configuration, (2) remove – what I thought was – localization codes and AD Configuration, and (3) add missing code and AD Configuration.

After many many test iterations and two installation observations, I am confident that I have achieved a certainly working package. Hence this is the FA version 1.0.

What functionality that can be expected in this FA v1.0:

1. Asset Addition from Match Invoice
2. Asset Addition from Import Asset
3. Asset Addition from Manual
4. Asset Addition from Project
5. Asset Depreciation using Straight Line Depreciation Method
6. Asset Disposal
7. Each document: Asset Addition, Asset Depreciation, and Asset Disposal can generate their own accounting facts

What should not be expected:

1. Asset Transfer
2. Asset Split
3. Asset Revaluation
4. Asset Financing
5. Asset Depreciation using other Depreciation method
6. Asset First Year Convention Method and Asset Depreciation Calculation Method are not yet developed.

Installation Note:

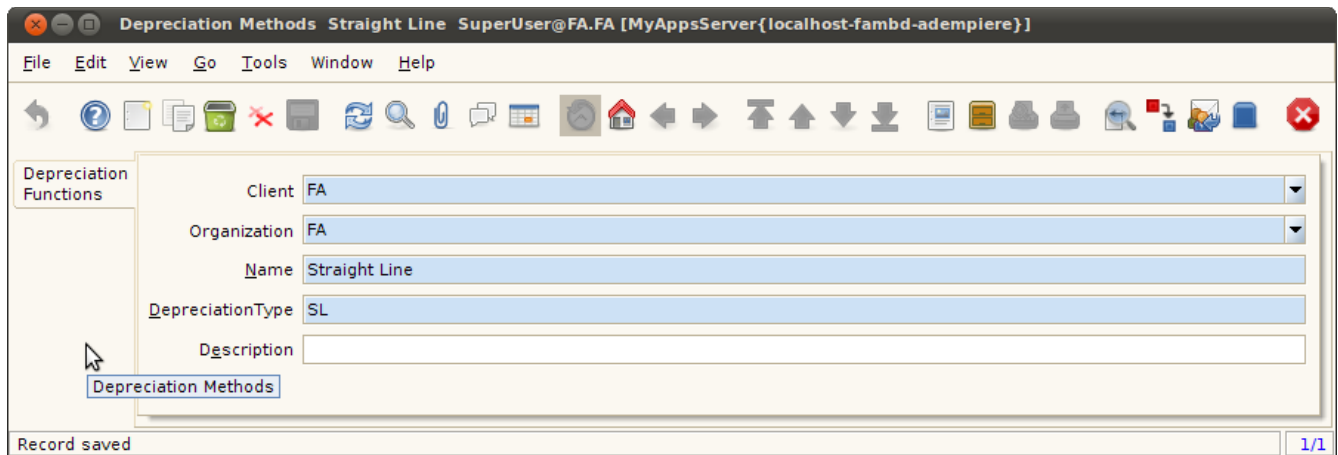
1. Please use Adempiere 360 LTS or GlobalQSS Adempiere 361. I have tested with various version of GlobalQSS Adempiere 361. The only issue i've met is after the introduction of migration script 845_IDEMPIERE-255.sql. That script add a new mandatory column "Name" to AD_PrintFormatItem_Trl which cause issue when running the FA migration scripts.
2. Please use PostgreSQL database. I am using PostgreSQL and tested it all on PostgreSQL. I have provided the Oracle migration scripts but I believe there should be some minor fix to the Oracle migration scripts. I haven't have the time to fix it now. Any help would be very much appreciated.

Fixed Assets

Setup

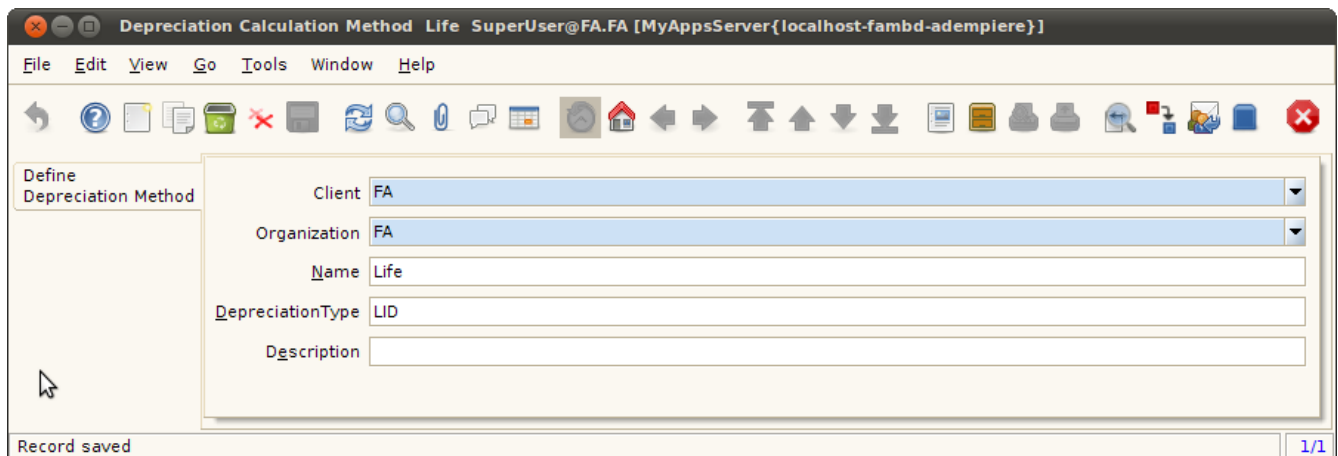
Below are the setup required:

1. Setup Depreciation Method.
Only "Straight Line" is currently developed. Make sure to use "SL" as value in column DepreciationType.



The screenshot shows a software window titled "Depreciation Methods Straight Line SuperUser@FA.FA [MyAppsServer{localhost-fambd-adempiere}]". The window has a menu bar (File, Edit, View, Go, Tools, Window, Help) and a toolbar with various icons. The main area is a form for defining a depreciation method. The fields are: Client (FA), Organization (FA), Name (Straight Line), DepreciationType (SL), and Description (empty). A "Depreciation Methods" button is visible in the bottom left. The status bar at the bottom shows "Record saved" and "1/1".

2. Setup Depreciation Calculation Method
Depreciation Calculation Method is a mandatory field dated back to Robert Klein's FA. This is not currently supported. Hence - for the time being – just create a record to fulfill the mandatory requirement.



The screenshot shows a software window titled "Depreciation Calculation Method Life SuperUser@FA.FA [MyAppsServer{localhost-fambd-adempiere}]". The window has a menu bar (File, Edit, View, Go, Tools, Window, Help) and a toolbar with various icons. The main area is a form for defining a depreciation calculation method. The fields are: Client (FA), Organization (FA), Name (Life), DepreciationType (LID), and Description (empty). The status bar at the bottom shows "Record saved" and "1/1".

3. Setup Depreciation First Year Convention

Depreciation First Year Convention is also a mandatory field dated back to Robert Klein's FA. This is not currently supported. Hence - for the time being – just create a record to fulfill the mandatory requirement.

4. Setup Asset Group

Asset Group is where the default setup for asset is derived. Entry the Asset Group name and tick Owned and Depreciate. Note that there is a Default flag. When you tick it, this Asset Group Accounting information will become Default for all other new Asset Group.

5. Setup Asset Group Acct

This is where you set all parameters related to Depreciation calculation and all those Accounting account configurations. Some explanation of the columns:

- Accounting Schema: for most users, surely you will only have one default accounting schema. But for some who utilize more than one accounting schema, this means that you can have different depreciation method and different account values for different accounting schema.
- Posting Type: “Actual” for operational uses
- Depreciation: currently only Straight Line is supported
- Depreciation (Fiscal): this is inherited from Teo Sarca. I found no use of it, but someone

might have a use case for different Depreciation method for fiscal reasoning

- Depreciation Method: this is currently not implemented yet
- Depreciation Method (Fiscal): refer to above explanation about fiscal
- Convention Type: this is currently not implemented yet
- Convention Type (Fiscal): refer to above explanation about fiscal
- Split Percent: this is for asset split functionality. Currently not supported.
- Usable Life – Years: asset usable life (in years)
- Usable Life – Years (fiscal) : asset usable life (in years) – refer to above explanation about fiscal.
- Usable Life – Months: asset usable life (in months)
- Usable Life – Months (fiscal): asset usable life (in months) – refer to above explanation about fiscal
- Asset Acct: the valid combination account for recording Asset value
- Accumulated Depreciation Acct: the valid combination account use for recording Accumulated Depreciation
- Depreciation Acct: the valid combination account use for recording Depreciation Expense.
- Disposal Revenue Acct: the valid combination account use for recording Disposal Revenue
- Disposal Loss Acct: the valid combination account use for recording Disposal Loss

Client	FA	Organization	FA
Asset Group	1000000_Vehicle		
Setup			
Accounting Schema	FA UN/34 Rupiah		
PostingType	Actual	Depreciation (fiscal)	Straight Line
Depreciation	Straight Line	Depreciation Method (fiscal)	Life
Depreciation Method	Life	Depreciation Convention (fiscal)	Month - The first year's depreciat
Convention Type	Month - The first year's depreciation is adjusted by the number	Use Life - Years (fiscal)	
Split Percent	1.0	Use Life - Months (fiscal)	
Usable Life - Years	1		
Usable Life - Months	12		
Accounts			
Asset Acct	fa-17400-_-	Depreciation Account	fa-67240-_-
Accumulated Depreciation Account	fa-18240-_-	Disposal Revenue Acct	fa-80800-_-
Disposal Revenue Acct	fa-80800-_-	Disposal Loss Acct	fa-82800-_-
Revaluation Accounts			
A_Reval_Cal_Method			

6. Setup Product Category

Asset Group must be paired with Product Category. Create a product category for each asset group and set the Asset Group value.

The screenshot shows the 'Product Category' setup form in SAP. The window title is 'Product Category Vehicle Vehicle SuperUser@FA.FA [MyAppsServer{localhost-famdbd-adempiere}]'. The form includes the following fields and options:

- Client: FA
- Organization: FA
- Search Key: Vehicle
- Name: Vehicle
- Description: (empty)
- Parent Product Category: (dropdown)
- Active:
- Material Policy: FiFo
- Default:
- Self-Service:
- Planned Margin %: 0.0
- Asset Group: 1000000_Vehicle

7. Setup Product

The screenshot shows the 'Product' setup form in SAP. The window title is 'Product Nissan Juke Nissan Juke SuperUser@FA.FA [MyAppsServer{localhost-famdbd-adempiere}]'. The form includes the following fields and options:

- Client: FA
- Organization: FA
- Search Key: Nissan Juke
- Version No: (empty)
- Name: Nissan Juke
- Description: (empty)
- Comment/Help: (empty)
- Document Note: (empty)
- UPC/EAN: (empty)
- SKU: (empty)
- Active:
- Summary Level:
- Product Category: Vehicle
- Classification: (empty)
- Tax Category: Standard
- Revenue Recognition: (dropdown)
- UOM: Each
- Company Agent: (dropdown)
- Product Type: Expense type
- Majl Template: (dropdown)
- Purchased:
- Discontinued:
- Sold:
- Expense Type: (empty)

Asset are instances of Product. Hence, we need to setup a Product to become base for the Asset.

Two important column to be noticed are:

- Product Category: you must set the appropriate Product Category that has been paired with a certain Asset Group.
- Product Type: you must not use "Item". Either "Expense" or Resource is recommended.

Asset Addition

The window: Asset Addition is the main interface for recording new asset into iDempiere. There are four method for Asset Addition:

1. Asset Addition from Match Invoice

The first method is addition from Procurement flow.

Invoice (Vendor) 1000002 SuperUser@FA.FA [MyAppsServer{localhost-famdb-adempiere}]

File Edit View Go Tools Window Help

Invoice

Client FA Organization FA

Invoice Line Purchase Order Date Ordered

Landed Costs Document No 1000002 Order Reference

Landed Cost Allocation Description

Matched POs Active

Matched Receipts Target Document Type AP Invoice

Invoice Tax Date Invoiced 06/14/2012 Account Date 06/14/2012

Payment Schedule Business Partner Vendor FA Partner Location Jakarta

Allocation User/Contact Price List Standard Currency IDR

Company Agent clientUser

Discount Printed

Check

Create lines from

Generate Receipt from Invoice

Status

Total Lines 240.00 Grand Total 240.00

Document Status Completed Document Type AP Invoice

Pay Schedule valid In Dispute

Copy Lines

Not Posted

IsFixedAssetInvoice

Paid

Close

1 Line(s) - 240.00 - Total: 240.00 IDR = 240.00

Match Invoice#1 2/2

The step by step instructions are:

- First, you must create a Material Receipt document using the asset base Product.
- Upon completion of Material Receipt, go to Invoice (Vendor) and use the “Create Lines From” to automatically create Match Invoice during completing Invoice.
- Then, go to Invoice Line. You should notice that the “Asset Related?” flag is ticked. Select “Capital” value on field “Capital vs Expense” and you'll see the related Asset Group value on field “Asset Group”.
- Complete the Invoice.

The screenshot shows the 'Invoice (Vendor)' window in iDempiere. The window title is 'Invoice (Vendor) 1000002 SuperUser@FA.FA [MyAppsServer{localhost-famdb-adempiere}]'. The menu bar includes File, Edit, View, Go, Tools, Window, and Help. The toolbar contains various icons for navigation and actions.

The main form is divided into several sections:

- Invoice Header:** Client: FA, Organization: FA, Invoice: 1000002_2012-06-14 00:00:00_0.
- Invoice Line:** Purchase Order Line: (empty), Line No: 10, Product: Nissan Juke_Nissan Juke, Receipt Line: 10_1_Nissan Juke - Nissan Juke_1000000, Charge: (empty).
- Description:** (empty)
- Asset Related?:** Asset Related?
- Capital vs Expense:** Capital, Asset: (empty)
- Asset Group:** 1000000_Vehicle
- Quantities:** Quantity: 1, UOM: Each, Quantity Invoiced: 1.
- Amounts:** Vendor Invoice Entry: 240.00, Unit Price: 240.00, Lst Price: 0.00, Tax: Standard, Tax Amount: 0.00.
- Status:** Line Amount: 240.00, Line Total: 240.00. Description Only, Printed.

At the bottom, a summary bar shows: 1 Line(s) - 240.00 - Total: 240.00 IDR = 240.00. The status bar at the very bottom indicates 'Data requiered' and '1/1'.

- If you are using “Create Lines From”, iDempiere will automatically generate and complete Match Invoice document.

Invoice (Vendor) 1000001 SuperUser@FA.FA [MyAppsServer{localhost-famdb-adempiere}]

File Edit View Go Tools Window Help

Invoice

Client FA Organization FA

Invoice Line 1000002 - 2012-06-14 00:00:00 - 240.00

Document No 1000001 Transaction Date 06/14/2012

Receipt Line 10_1_Nissan Juke - Nissan Juke_1000000

Quantity 1

Product Nissan Juke_Nissan Juke Attribute Set Instance

Not Posted

Invoice Line
Landed Costs
Landed Cost Allocation
Matched POs
Matched Receipts
Invoice Tax
Payment Schedule

- When Match Invoice document is completed, a new asset record and a new asset addition record will be automatically generated.
- If you check to the Asset window, you can find the newly generated Asset with auto-generated value and name with format: Product – Vendor BP – Invoice Document No.
- One important check is the Asset Status and Activation Date. The Asset Status must be “New” and Activation Date must be null.
- When the Asset Addition is completed, the Asset Status will be updated to “Activated” and the Activation Date will be populated.

Asset Nissan Juke-Vendor FA-1000002 Nissan Juke-Vendor FA-1000002 SuperUser@FA.FA [MyAppsServer{localhost-famdb-adempiere}]

File Edit View Go Tools Window Help

Asset

Client FA Organization FA

Search Key Nissan Juke-Vendor FA-1000002 Inventory No 1000001

Name Nissan Juke-Vendor FA-1000002

Description

Comment/Help CreatedFromInvoiceLine

Active Parent Asset Nissan Juke-Vendor FA-1000002

Asset Group Vehicle

Product Nissan Juke_Nissan Juke Attribute Set Instance 1000001

Serial No

Manufactured Year

Lot No

In Service Date

Guarantee Date

Create Date 06/14/2012 Revaluation Date

Project Activity

Location

Asset
Product
Asset Balances
Accounting Setup
Activation/Addition
Disposal
Delivery
Asset Usage
Asset History
Issue Project
Finance Information
License Information
Insurance

The screenshot shows the 'Asset Addition' window with the following details:

- Location:**
 - In Possession
 - Locator: [Text Field]
 - BPartner (Agent): [Dropdown Menu]
 - Owned
- Fixed Asset:**
 - Depreciate
 - Fully depreciated
 - Life use: [Text Field]
 - Use units: [Text Field]
- Maintenance:**
 - Last Maintenance: [Text Field]
 - Last Note: [Text Field]
 - Next Maintenance: [Text Field]
 - Next Unit: [Text Field]
- Status:**
 - Asset Status: [Dropdown Menu] (Selected: New)
 - Activation Date: [Text Field]
 - Disposed

Bottom status bar: Data queried | 2/2

- Go to Asset Addition window. Check the newly created Asset Addition window. Some important fields are:
 - Asset: this is the asset name
 - Create Asset: leave this flag. It is for [need more explanation here]
 - Document Date: this will be asset in-service date.
 - Account Date: as in other iDempiere documents. This is for fact accounting date
 - Posting Type: "Actual"
 - Source Type: "Import", "Match Invoice", "Manual", and "Project"
 - Capital/Expense: "Capital" will add Asset value, while "Expense" will not do that. "Expense" will only add a reference record that that particular asset is linked to the specified expense.
 - Invoice: related invoice
 - Match Invoice: related match invoice
 - Invoice Line: related invoice line
 - Shipment/Receipt Line: related receipt line
 - Product: the asset base product
 - Entered Amount: the entered amount
 - Source Amount: the amount in the original currency
 - Asset Value: the converted amount in functional currency
 - Current Qty: qty of asset. Must be 1 (one).
 - Currency: the transaction currency
 - Currency Type: the currency conversion type
 - Delta Use Life Years: the asset life years
 - Adjust Accumulated Depreciation: flag to adjust accumulated depreciation

- Accumulated Depreciation: the accumulated depreciation amount
- Accumulated Depreciation (fiscal): the accumulated depreciation amount (fiscal)
- Period Start: Depreciated Period + 1

Asset Addition 1000001 SuperUser@FA.FA [MyAppsServer{localhost-famdb-adempiere}]

File Edit View Go Tools Window Help

Client FA Organization FA

Document No 1000001

Asset Nissan Juke-Vendor FA-1000002 Create Asset

Document Date 06/14/2012 Account Date 06/14/2012

General

PostingType Actual

Source Type Invoice Capital/Expense Capital

Document

Invoice 1000002_2012-06-14 00:00:00

Match Invoice 1000001

Invoice Line 1000002 - 2012-06-14 00:00:00 - 2 Shipment/Receipt Line 10_1_Nissan Juke - Nissan Juke_10

Product Nissan Juke Attribute Set Instance

Locator Standard

Description

Amounts

Entered Amount 240.00

Asset value 240.00 Source Amount 240.00

Current Qty 1.0

Currency Type Spot Currency IDR

Life periods (min) Life periods (max)

Navigate or Update record 1/2

Account Viewer

Enter Query View Result

Organization	Account	Accounted Debit	Accounted Credit	Product	Business Partner	A
FA	17400 - Vehicles	240.00	0.00	Nissan Juke - Nissan Juke		
FA	14120 - Product asset	0.00	240.00	Nissan Juke - Nissan Juke	Vendor FA	
		240.00	240.00			

- When asset addition document is completed, several fields are updated in window Asset:
 - Tab "Asset"
 - In Service Date: the same as Asset Addition document date

- Asset Status: “Activated”
- Activation Date:
- Processed: flag ticked
- Tab “Product”: an instance of the base product will be created and recorded here.
- Tab Asset Balances: here you can check the asset values, asset salvage value,
- Tab Expense: When completing Asset Addition, the process will create proposed Asset Depreciation Entries for the asset. Upon addition, you can check if the depreciation entries has been properly inserted.
- The fact accounting entries generated are:
 - Asset (DR)
 - if value of C_Project_ID on related C_InvoiceLine_ID is not null then:
 - Project Acct (CR), else
 - Product Asset (CR)

2. Asset Addition from Import Asset

This is basically utilizing iDempiere Import File Loader feature. The steps are:

- Prepare your import data in a text file
- Import it to window Imported Fixed Assets
- Verify and process the import

If you are not missing any mandatory fields, the asset and respective Asset Addition should be created. Note that no fact accounting entries will be generated in Asset Addition if the source is “Import”. Hence, you must create additional GL Journal for the fact entries.

3. Asset Addition from Project

I have added a process: “Create Asset from Project”.

FA_ProjectCreateAsset


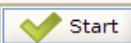
This process creates asset from project and automatically close the project

There are four parameters: a. Project, is the Project that will be converted to asset. This project will be closed after this process completes b. Product, is the asset product that will be act as the base for the newly created asset c. UseLifeYears, is an optional parameter. Use this if you want a different use life years for the newly created asset, instead of the default uselifeyears from asset group accounting. d. Transaction Date, will become in-service-date for the newly created asset.

Project

Transaction Date

Use Life Years

Use this process to create any Open Project as new Asset. The process will generate Asset and Asset Addition document and directly complete the Asset Addition document. In the end, it will close the respective project. The fact accounting entries generated are:

- Asset (DR)
- Project Acct (CR)

4. Asset Addition (manual)

Manual means, you create the Asset manually on window Asset. Then create the Asset Addition document manually. Select Source Type “Manual” and select the appropriate “Charge”. The fact accounting entries generated are:

- Asset (DR)
- Charge (CR)

Asset Depreciation

These are the steps to perform asset depreciation:

- Create new record on window Process Depreciation
- Entry those mandatory fields.
- When saving, the depreciation records will automatically populated with all unprocessed depreciation entries. So after saving, you can see all unprocessed depreciation entries at Process Depreciation >> Records.
- Complete the document.

The screenshot shows the 'Post Depreciation Entry' window. The form fields are as follows:

Client	FA	Organization	FA
Document No	1000		
Description			
Setup			
PostingType	Actual	GL Category	Standard
Accounting Schema	FA UN/34 Rupiah	Document Type	GL Journal
Document Date	06/14/2012	Account Date	06/14/2012
Period	Jun-12		
Document Status	Drafted		
	<input type="checkbox"/> Approved		

Complete

Upon completion, you can check at window Assets >> Asset Balances, the Accumulated Depreciation, Remaining Amt, and Current Period has been updated. Further checking, go to Assets >> Expense and check that the depreciation entries for the related period has been marked as Processed.

The accounting facts are:

Organization	Account	Accounted Debit	Accounted Credit	Product	Business Partner
FA	67240 - Vehicles Depreciation	20.00	0.00		
FA	18240 - Vehicles Accumulated Depreciation	0.00	20.00		
		20.00	20.00		

Asset Disposal

Note: You cannot dispose an asset on period where it has been depreciated. e.g: You have completed a depreciation document which include Asset A on period Jun 2012. You cannot dispose Asset A on period Jun 2012. A validation will stop you.

These are the steps to perform asset disposal:

- Create new Asset Disposal record on window Asset Activation/Disposal
- Select the Asset. Upon selection, the callout will populate Asset Cost, Accumulated Depreciation, Expense, Accumulated Depreciation (delta) and Asset Status
- Entry the disposed date
- Entry disposed method and disposed reason. Currently these two column is for reference only. It has no processing impact

- Save and complete the record

Asset Activation/Disposal 1000000 SuperUser@FA.FA [MyAppsServer{localhost-famdb-adempiere}]

File Edit View Go Tools Window Help

Asset Disposal/Activation

Client FA Organization FA

Document No 1000000

Description

Document Date 07/20/2012 Account Date 07/20/2012

Asset 1000001_Nissan Juke-Vendor FA-10000

Disposed Date 07/20/2012 Disposed Method Trade

Disposal Amount 240.00 Disposed Reason

Status

Disposed

Asset Cost 240.00 Expense 220.00

Accumulated Depreciation 20.00 Accumulated Depreciation (delta) 20.00

PostingType Actual

Asset Status Activated

Document Status Completed

Approved

Posted

Close

Navigate or Update record 1/1

Upon completion, status of the asset will be updated to “Disposed”. The accounting facts are:

Organization	Account	Accounted Debit	Accounted Credit	Product	Business Partner
FA	17400 - Vehicles	0.00	240.00		
FA	18240 - Vehicles Accumulated Depreciation	20.00	0.00		
FA	82800 - Fixes Asset Sale Loss	220.00	0.00		
		240.00	240.00		