iDempiere Fixed Asset User Manual Addendum

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V0.01

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Refer to Edwin Ang's "iDempiere Fixed Asset User Manual", June 12, 2012. Version 0.1

Corrections and notes

To create an asset, follow the procedure as outlined in Edwin Ang's "iDempiere Fixed Asset User Manual", June 12, 2012. Version 0.1

(This writeup has partial excerpts. Please see original document for complete writeup).

There is no window in iDempiere at point 2.Setup Depreciation Calculation Method

There is no window in iDempiere at point 3. Setup Depreciation First Year Convention

- First, you must create a Material Receipt document using the asset base Product.

Correction: First you must create a PO then go to Material Receipt create lines from (otherwise no costs error when posting)

- 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?" *[now called 'Create Asset']* 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.

  ...

- When Match Invoice document is completed, a new asset record and a new asset

addition record will be automatically generated.

NB: The invoice vendor line will only show the link to the asset once the asset addition has been completed.

General Notes

Methods to add fixed assets

Methods to add fixed assets (quoted from Edwin Ang's document)

- Asset Addition from Match Invoice

- Asset Addition from Import Asset

- Asset Addition from Project

- 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".

Capital or expense

- If Capital, then create an asset, otherwise not.

- Refer MAssetAddition.setM_MatchInv

```
if (MAssetAddition.A_CAPVSEXP_Capital.equals(mi.getC_InvoiceLine().getA_CapvsExp())
                && mi.getC_InvoiceLine().getA_Asset_ID() == 0) {
        setA_CreateAsset(true);
    }
```

Code Analysis

Import fixed asset

- Import is done via ImportFixedAsset.java
- Asset is created via static method MAssetAddition.createAsset(ifa), where ifa is the ImportFixedAsset reference.
- In total there are 3 methods for creation of fixed assets, controlled by way of the public static overloaded method (factory method) createAsset in class MAssetAddition. The overloads allow creation of an asset from:
  - From MIFixedAsset
  - From MMatchInv
  - From MProject and MProduct
- The overloaded methods all save the MAsset record.
- The overloaded methods all save the MAssetAddition record.
- Depending on the import record's DocAction, which could be Complete (CO) or None (–), the MAssetAddition document will be completed.
- The standard PO constructors for MAssetAddition are marked public, which allows the factory logic to be overridden (in the case of a manual addition).

org.idempiere.fa.model.ModelValidator

- For a MMatchInv record which is processed (ie after completed...)
- In class org.idempiere.fa.model.ModelValidator
  - In modelChange
    - If invoiceline isA_CreateAsset and isProcessed
      - MAssetAddition.createAsset(MMatchInv)
- Disposal of asset is created if the Invoce is completed and it is AR.

MAsset.beforeSave

Please note that the reset / set of certain fields in MAsset occurs on MAsset.beforeSave, one example is 'isDepreciated'

MDepreciationWorkfile

Much of the important logic in FA happens in MDepreciationWorkfile which is one record per asset per posting type.

Retrieve record as follows:

MDepreciationWorkfile m_assetwk = MDepreciationWorkfile.get(getCtx(), m_asset.getA_Asset_ID(), MDepreciationWorkfile.POSTINGTYPE_Actual);

Depreciation

General notes

Deprecation records are pre-created in A_Depreciation_Exp table.

The depreciation window is based on table A_Depreciation_Entry. This window has as a second tab, the A_Depreciation_Exp table. Records are shown based on A_Depreciation_Entry_ID.

This field is updated by MDepreciationEntry.selectLines, a private method which is called by MDepreciationEntry.afterSave. Thus, when the user does a 'Post Depreciation Entry', this associates the depreciation records for that period, with that record depreciation entry record.

Refer:

```
private void selectLines()
        {
                // Reset selected lines:
                unselectLines();
                // Select lines:
                final String sql = "UPDATE " + MDepreciationExp.Table_Name + " SET "
                                + MDepreciationExp.COLUMNNAME_A_Depreciation_Entry_ID +
"=?"
                                + " WHERE "
                                +
MDepreciationExp.COLUMNNAME_A_Depreciation_Entry_ID + " IS NULL"
                                + " AND
TRUNC("+MDepreciationExp.COLUMNNAME_DateAcct+",'MONTH') = ?"
                                + " AND AD_Client_ID=? AND AD_Org_ID=?";
                ;
                Timestamp dateAcct = TimeUtil.trunc(getDateAcct(), TimeUtil.TRUNC_MONTH);
                int no = DB.executeUpdateEx(sql, new Object[]{get_ID(), dateAcct,
getAD_Client_ID(), getAD_Org_ID()}, get_TrxName());
                if (log.isLoggable(Level.FINE)) log.fine("Updated #" + no);
        }
```
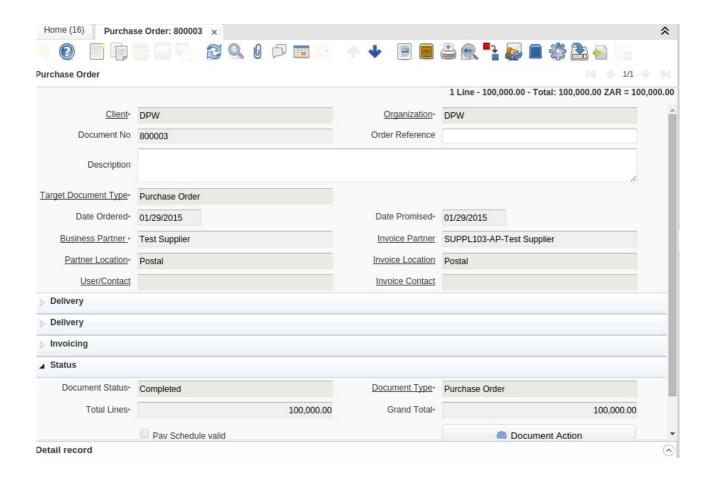
Recreate depreciation records
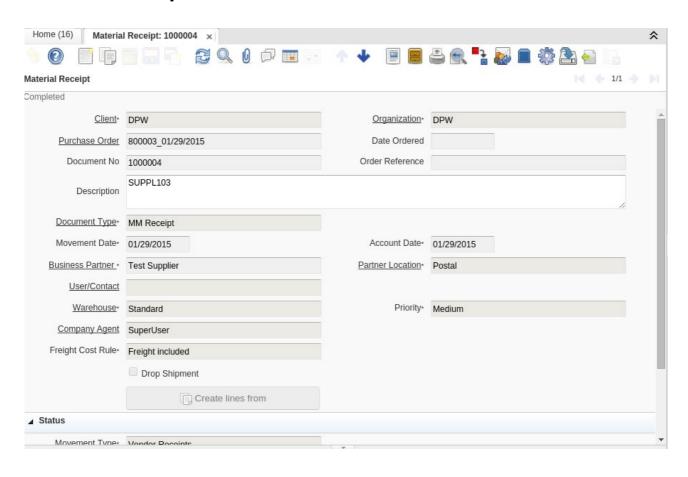
This is done as follows:

m_assetwk.buildDepreciation();

Analysis of GL impact as a result of creation of asset using matched invoice

PO

Material Receipt + Line

Material Receipt

1/1

Completed

Client•	DPW	Organization•	DPW
Purchase Order	800003_01/29/2015	Date Ordered	
Document No	1000004	Order Reference	
Description	SUPPL103		
Document Type•	MM Receipt		
Movement Date•	01/29/2015	Account Date•	01/29/2015
Business Partner •	Test Supplier	Partner Location•	Postal
User/Contact			
Warehouse•	Standard	Priority•	Medium
Company Agent	SuperUser		
Freight Cost Rule•	Freight included		

☐ Drop Shipment

▢ Create lines from

◢ Status

Movement Type•   Vendor Receipts

Material Receipt > Receipt Line

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Client•	DPW	Organization•	DPW
Receipt•	1000004_01/29/2015	Purchase Order Line	800003_01/29/2015_10_100000.00
Line No•	10		
Product	Vehicles_Vehicles	Attribute Set Instance	
Locator•	Standard		
Description			

◢ Quantities

Quantity•	1	UOM•	Each
Movement Quantity•	1		
Picked Quantity	0	Target Quantity	0
Confirmed Quantity	0	Scrapped Quantity	0

Vendor Invoice

Header

Used 'Create Lines From' and chose the Purchase Order.

Line
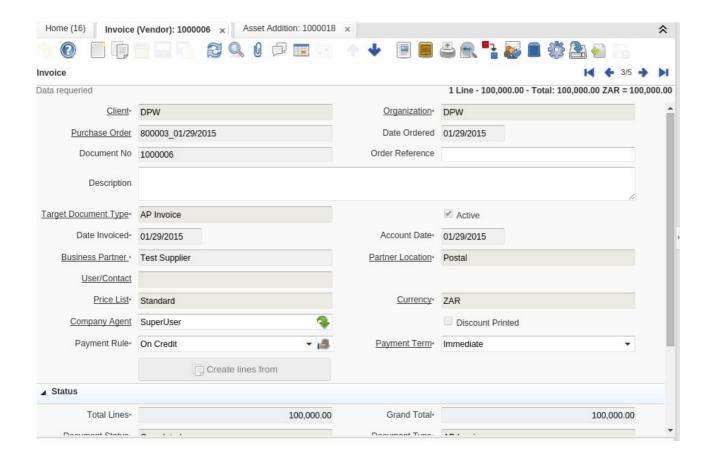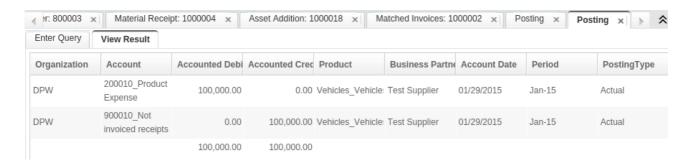
Tick 'Create Asset'. Choose Capital. NB: The Asset link is only populated when the *Asset Addition* has been completed (the asset addition is only created once the vendor invoice has been completed).
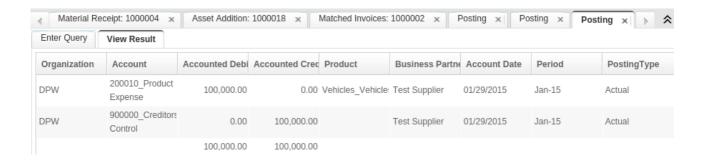
GL Impact using matched invoice

Material Receipt

Enter Query | View Result

Organization	Account	Accounted Debit	Accounted Credit	Product	Business Partner	Account Date	Period	PostingType
DPW	200010_Product Expense	100,000.00	0.00	Vehicles_Vehicle	Test Supplier	01/29/2015	Jan-15	Actual
DPW	900010_Not invoiced receipts	0.00	100,000.00	Vehicles_Vehicle	Test Supplier	01/29/2015	Jan-15	Actual
		100,000.00	100,000.00					

Invoice Vendor

Enter Query | View Result

Organization	Account	Accounted Debit	Accounted Credit	Product	Business Partner	Account Date	Period	PostingType
DPW	200010_Product Expense	100,000.00	0.00	Vehicles_Vehicle	Test Supplier	01/29/2015	Jan-15	Actual
DPW	900000_Creditors Control	0.00	100,000.00		Test Supplier	01/29/2015	Jan-15	Actual
		100,000.00	100,000.00					

Matched Invoice

Enter Query | View Result

Organization	Account	Accounted Debit	Accounted Credit	Product	Business Partner	Account Date	Period	PostingType
DPW	900010_Not invoiced receipts	100,000.00	0.00	Vehicles_Vehicle	Test Supplier	01/29/2015	Jan-15	Actual
DPW	200010_Product Expense	0.00	100,000.00	Vehicles_Vehicle	Test Supplier	01/29/2015	Jan-15	Actual
		100,000.00	100,000.00					

Asset Addition

| Enter Query | **View Result** |

Organization	Account	Accounted Debi	Accounted Cred	Product	Business Partne	Account Date	Period	PostingType
DPW	17400_Vehicles - Asset	100,000.00	0.00	Vehicles_Vehicle:		01/29/2015	Jan-15	Actual
DPW	200010_Product Expense	0.00	100,000.00	Vehicles_Vehicle:	Test Supplier	01/29/2015	Jan-15	Actual
		100,000.00	100,000.00					

GL Summary

	Material Receipt	**Dr**	**Cr**
200010	Product Expense	100,000	
900010	Not Invoiced Receipts		100,000
	Invoice		
200010	Product Expense	100,000	
900000	Creditors Control		100,000
	Matched Invoice		
900010	Not Invoiced Receipts	100,000	
200010	Product Expense		100,000
	Asset Addition		
17400	Vehicles – Asset	100,000	
200010	Product Expense		100,000

Summary by account

			Dr	Cr
200010	Product Expense	Material Receipt	100,000	
		Invoice	100,000	
		Matched Invoice		100,000
		Asset Addition		100,000
900010	Not Invoiced Receipts	Material Receipt		100,000
		Matched Invoice	100,000	
900000	Creditors Control			100,000
17400	Vehicles – Asset		100,000	

Net effect

			Dr	Cr
900000	Creditors Control			100,000
17400	Vehicles – Asset		100,000	

Disposal

The A_Asset_Cost field of MAssetDisposed is updated here, called from the prepareIt method.

```java
/**
 * Copy fields from A_Asset
 * @param model
 * @param A_Asset_ID
 */
public static void updateFromAsset(I_A_Asset_Disposed bean)
{
    int asset_id = bean.getA_Asset_ID();
    SetGetUtil.copyValues(
            SetGetUtil.wrap(bean),
            MAsset.Table_Name, asset_id,
            new String[] {
                MAsset.COLUMNNAME_IsDisposed,
                MAsset.COLUMNNAME_A_Asset_Status,
                "AD_Org_ID",
            }
    );

    MDepreciationWorkfile wk = MDepreciationWorkfile.get(Env.getCtx(), asset_id, bean.getPostingType
    if (wk != null)
    {
        bean.setA_Asset_Cost(wk.getA_Asset_Cost());
        bean.setA_Accumulated_Depr(wk.getA_Accumulated_Depr());
    }
    else
    {
        bean.setA_Asset_Cost(Env.ZERO);
        bean.setA_Accumulated_Depr(Env.ZERO);
    }
}
```