# 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

- Link to original document: <a href="http://bitbucket.org/edwinang/fixed">http://bitbucket.org/edwinang/fixed</a> assets/downloads/iDempiere %20FA%20User%20Manual.pdf
- Link to this document: <a href="https://bitbucket.org/ntiersoftware/various/downloads/iDempiere">https://bitbucket.org/ntiersoftware/various/downloads/iDempiere</a> %20FA%20User%20Manual%20Addendum.pdf

### Work in progress

• Note: This is a work in progress document. Document may contain errors

### Improvements and alterations

 Please contribute changes, additions and improvements back. See: https://groups.google.com/forum/#!topic/idempiere/oPDbr0Sm4MY

### **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
  - o 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
  - o 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=?";
              <u>Timestamp</u> dateAcct = TimeUtil.trunc(getDateAcct(), TimeUtil.TRUNC MONTH);
              <u>int</u> no = DB.executeUpdateEx(<u>sql</u>, new Object[]{get_ID(), dateAcct,
getAD Client ID(), getAD Org ID()}, get TrxName());
              if (log.isLoggable(Level.FINE)) log.fine("Updated #" + no);
       }
```

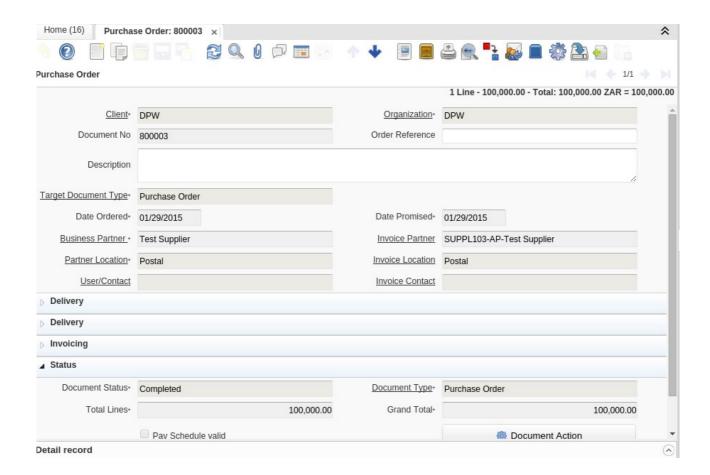
# Recreate depreciation records

This is done as follows:

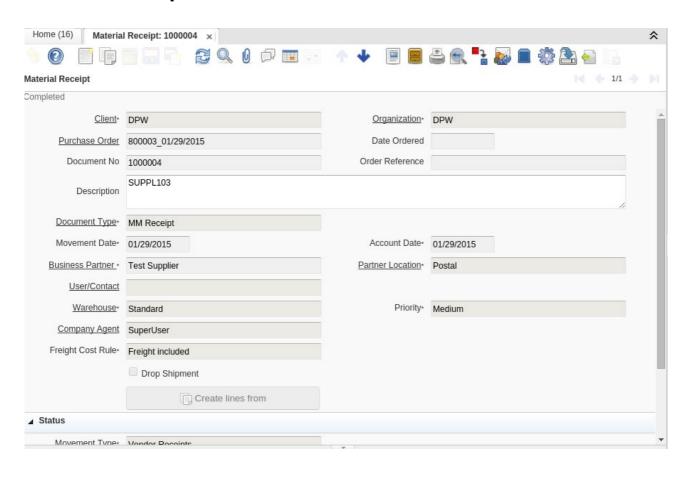
m\_assetwk.buildDepreciation();

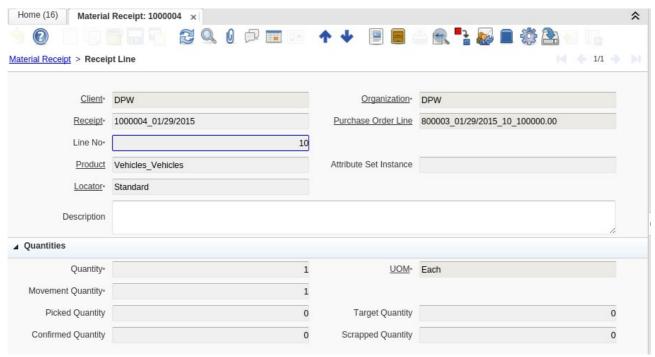
# Analysis of GL impact as a result of creation of asset using matched invoice

### PO



# **Material Receipt + Line**

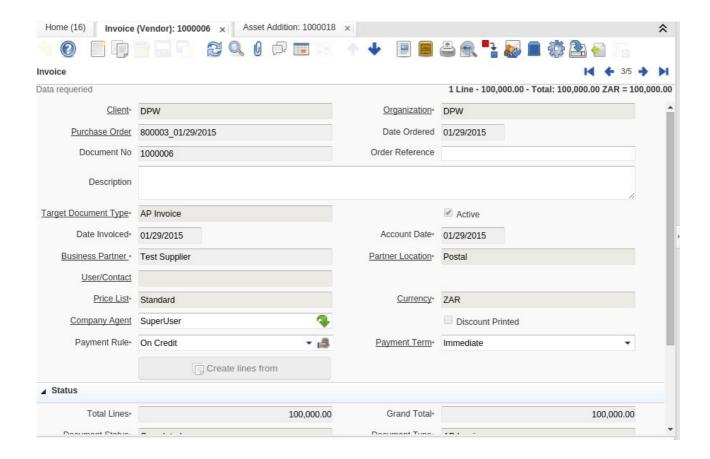




### **Vendor Invoice**

### Header

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



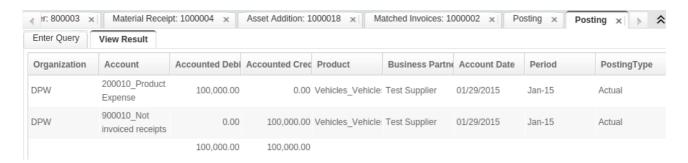
### Line

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).

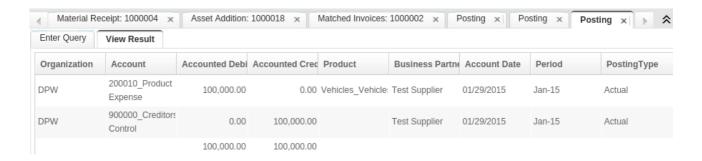
> Invoice Line ▼			1/1
- IIIVOIGG EIIIG V			1 Line - 100,000.00 - Total: 100,000.00 ZAR = 10
			1 Line - 100,000.00 - 10tal. 100,000.00 ZAIN - 10
Client*	DPW	Organization*	DPW
Invoice*	1000006_01/29/2015_100000.00		
rchase Order Line	800003_01/29/2015_10_100000.00		
Line No*	10	Receipt Line	10_1_Vehicles_Vehicles_1000004_01/29/2015
Product	Vehicles_Vehicles	Charge	
1099 Box			
Description			6
Capital/Expense	Capital	<u>Asset</u>	1000020_Vehicles-Test Supplier-1000006
antities			
nounts			
Price*	100,000.00		
Unit Price*	100,000.00	List Price*	100,000.00
Tax∗	Standard	Tax Amount	0.00

# **GL** Impact using matched invoice

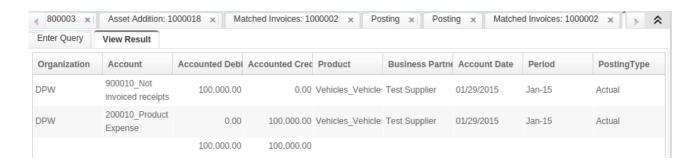
### **Material Receipt**



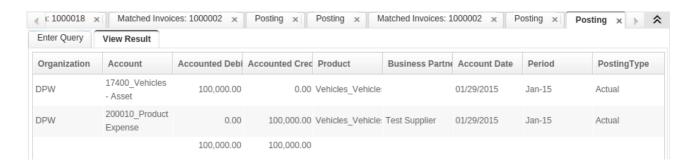
### **Invoice Vendor**



### **Matched Invoice**



### **Asset Addition**



# **GL Summary**

# Detail

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

```
/**
* 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);
   }
ļ
```