FI-LE 2: Job Aid for Inventory Price Revaluation (MAP Adjustments)



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Overview

In accordance with IPSAS 12, inventory <u>held for sale</u> is to be measured at the lower of cost and net realizable value (NRV) on an item-by-item or group basis. Inventories held for <u>distribution</u> at no charge, or for a nominal charge, are to be measured at the lower of cost and current replacement cost.

Upon full deployment of Umoja, the cost of inventory shall be determined using **moving average price** "MAP" (as outlined in the UN Policy Framework for IPSAS). The **MAP** method is a method of determining the cost of inventory by re-calculating the average cost of each inventory item after every inventory purchase. In Umoja this is calculated separately for each plant location.

In Umoja all items managed operationally as inventory (that is in locations using Logistic Execution-Inventory Management) are all initially recognized in the same manner (as a current asset). However, subsequent adjustments are made to expense non-financial inventory for financial statement reporting purposes.

Financial inventories include inventory held for sale or external distribution, Strategic Consumables & Supplies including UN Reserves, and Raw Materials and Work in progress. Financial inventories will be reported in the IPSAS statement of financial position as a current asset until used, sold, or distributed, at which point it will be expensed.

Non-financial inventories are materials and supplies consumed internally for the United Nation's own use. These are items that are managed as inventory within the organization though do not meet the definition of inventory as a current asset. Non-financial inventory will be expensed and not recorded as a current asset.

Further information regarding financial accounting for inventory can be found under Financial Accounting in the Umoja job aids page, on the Umoja website.

Financial Accounting				
General	Formatting ECC Finance Reports			
General	Run Cash Balances GM Budget Release Report			
UNDP	UNDP Advance and Reconciliation			
UNDP	Preparation for UNDP Mass Update			
General Ledger	Chart of Accounts			
General Ledger	P1E 100 Coding Block			
General Ledger	Rank Poconciliation of Transfors & Pomittaneos			
General Ledger	Accounting for Inventory Financial and Non-Financial			
Accounts Payable	Clearing of Payroll Account			
Accounts Payable	Retrieve MIR7 Invoice			
Accounts Payable	MIR7 Cheat Sheet			
Accounts Payable	Access AP Report			
Accounts Payable	Cash Journal Ongoing Operations			

The following job aid sets out the procedures to be followed once it is identified that MAP adjustments of inventory are necessary. For example as a result of impairment or in exceptional cases where inventory was received into a plant and due to the fact there was no existing material at the plant the item has a MAP of zero (i.e. receiving items with no associated PO).



There are two methods of adjusting MAP.

- MR21, will revalue all of a particular material in a given Plant Location by indicating the new
 price for the material. Note the revaluation only applies to stock that is unrestricted (it does not
 apply the adjustment to blocked stock or stock that is already included in a sales or production
 order).
- MR22, will revalue a material based on the addition or subtraction of a lump sum to the full or
 partial quantity of the stock in the Plant location. Note the revaluation only applies to stock that
 is unrestricted (it does not apply the adjustment to blocked stock or stock that is already
 included in a sales or production order).

IMPORTANT: All MAP adjustments post against expenditure GL accounts for Impairment (GL account ranges 77300000 to 77599999). As such, when the MR21/MR22 adjustment relates to a material that is <u>non-financial</u> in nature or as a result of a conversion error a separate JV (FV50) needs to be posted to correct the posting against the impairment account (this is outlined below in PART 2).

Material Valuation changes (using MR21 and MR22) are currently performed by the FINANCIAL_ACCOUNTING: CLOSING_USER, centrally in UNHQ. This is necessary as the user posting needs to review and adjust for any affects related to Non-Financial inventory in the *Statement of Financial Performance* (P&L). Hence any adjustments needed to MAP must be documented in an iNeed ticket (and assigned to Tier 2b-Financial Accounting).

In the case entities need to receive items without a PO or adjust the value of a material as a result of an error on purchase order (wrong material used or there is a quantity price inversion on a direct material PO), an iNeed ticket should be also raised once raised. The Logistics Execution-LPE or LE-Umoja Team will provide the guidance on appropriate job aids to follow.

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at the location.					

The method by which the new MAP is obtained needs to be documented fully and approved by the CFO

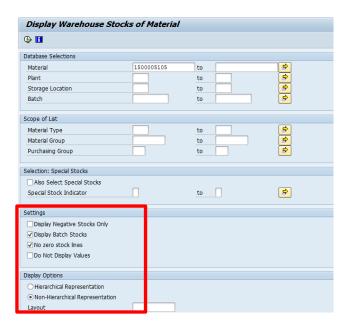


PART 1: Identify Material(s) / locations relevant for Price Change-MB52

Each entity will identify when a MAP adjustment is necessary. For example when material is considered financial inventory (it should be revalued regularly). Note: for generic material items created where there are large variations in price it is necessary to look on a case by case basis to ensure inventory is correctly valued in accordance with IPSAS.

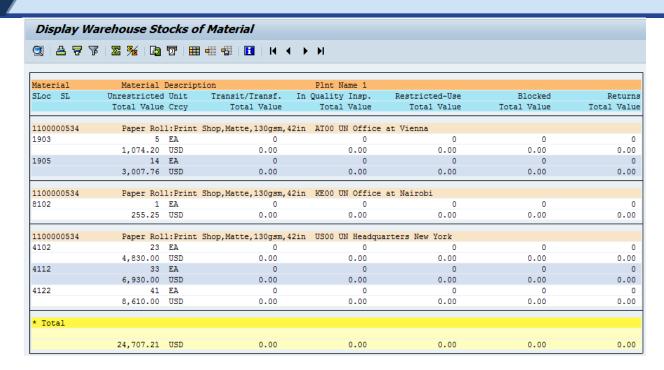
Once material adjustment is identified, a report should be run which outlines at the storage locations where this material is currently available. The "Warehouse Stocks of Material" report (Transaction MB52) should be used.

 In the selection screen of MB52 transaction, enter the desired material number into the "Material" field and ensure to flag the "No zero stock lines" option, so all plants/storage locations where the material exist can be considered for the reporting



2. After executing the transaction, the report shows all the plants / storage locations where the specified material is available in the organization, together with the actual stock value information.





<u>If any quantity is available at "non-physical storage locations" the price revaluation cannot be performed</u> (for more details, see chapter "*Troubleshooting Error Messages*").

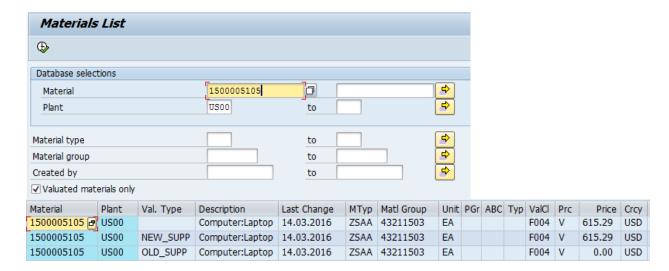
The current "non-physical storage locations" (for all plants/entities) are:

• 9000 : Virtual Location

• A000 : Asset Receiving Consumable

To review the MAP of a Material use MM60.

Alternatively a user can simply review the current MAP of items using MM60 and entering the material and plant





Adjust the Material Prices using MR21

Using MR21 to revalue a material in a particular plant location, as mentioned above, will revalue the MAP for all items at that plant location.

1. Log in to Umoja ECC.

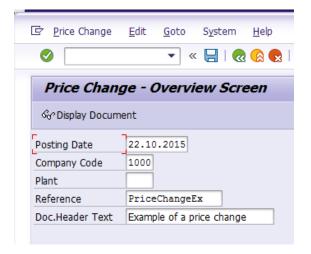
2. Execute Transaction code MR21.

3. Fill out the following fields as described below and then press the Enter key to continue.

Posting Date: This will default to today's date, change if necessary.

Company Code: Always = 1000

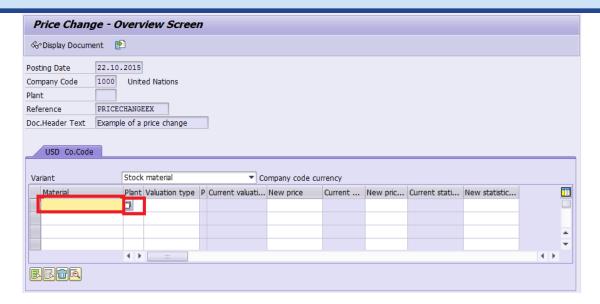
Plant: Leave this blank, if you are posting to more than one plant, otherwise enter the plant. **Reference:** Reference ID for the postings to be made (Will appear on the header of FI document) **Doc.Header Text:** A more detailed description of the postings to be made (Will appear on the header of FI document).



4. You will now see a table below the price change document. This is where you will fill out the list of materials/plants and their new prices. Enter a Material number and Plant on the first line and press Enter.

<u>Note</u>: In case the material is split valuated, the "Valuation Type" field also has to be populated to all relevant materials. Please also note, the revaluation should be done only for "NEW_SUPP" or "NEW_SPARES" split valuations (depending on the material).





5. After pressing enter you will see the current valuation (price) and the new price.

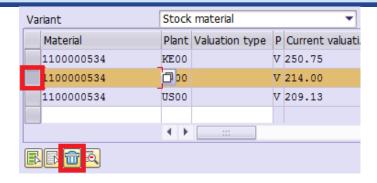


6. Generally the MR21 adjustment will only be done by Plant Location. But where materials exist in more than one plant. Continue adding all of the additional material/plant combinations you plan to adjust. The example below shows three lines for one material, with each plant having its own unique valuation for the same material (if the user is adjusting for their plant only care should be taken to only include the relevant plant ID).

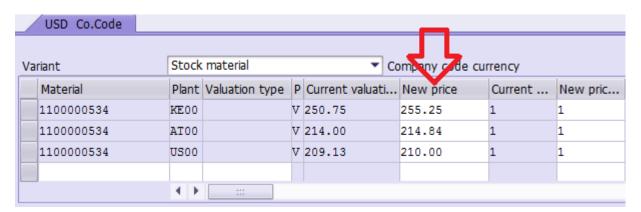


7. If you need to remove any lines that you added, click on the button to the left of the material number and then click on the Delete icon.

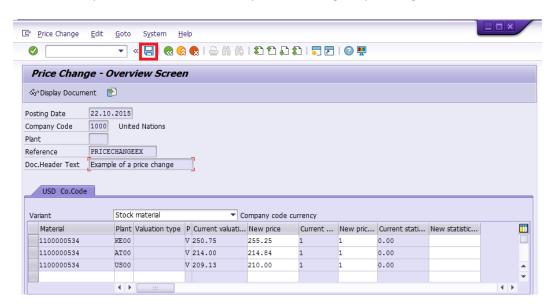




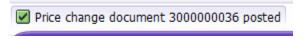
8. When all material/plant combinations are entered, update the 'New price' field for each line. Enter in the **FIRST New Price Column**



9. After all new prices have been entered, post the changes by clicking on the Save icon.



10. If the postings were made successfully, you should see a message in the status bar showing the document number for the change.





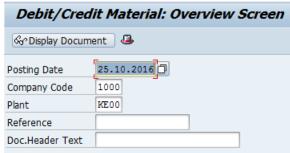
Adjust the Material Prices using MR22

The transaction is very similar to MR22 but allows a user to revalue one or multiple materials in one plant indicating a lump sum that is to be added (or subtracted) to the entire quantity of the materials in stock or to a specified quantity. The system will automatically recalculate the value of the materials and a new MAP will be derived.

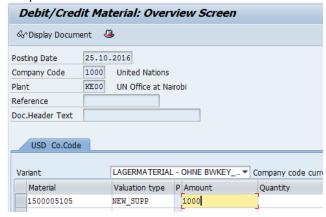
This could be used, for instance, there is the need to include some specific costs incurred, such as transformation, to a specific material. It can also be used to revaluing a large number of materials that are less than 1 USD (where more than 2 decimal places are needed to correctly value the individual items).

MR22 is performed as follows:

1. Type MR22 in the command field and press Enter. The system displays the initial screen where the user must specify the Plant, in this example, "KE00" and press Enter.



The system displays the screen where the user shall specify the material, the valuation type (if the material is split valuated, it will always be either NEW_SUPP or NEW_SPARES) and the lump sum in the column Amount.



3. As mentioned above, it is possible to indicate a specific quantity of that material to which the lump sum is to be added. If not indicated, the system will automatically apportion the additional lump sum to the total quantity of the material in stock in the plant. Press Enter to review the system calculated values:





In the above screen, the system displays the Quantity (in this case the total material quantity in stock in the plant), the base unit of measure, the Price that is the current MAP of the material and the New Price, that is the reevaluated price based on the Amount added.

4. Click on Save () to perform the reevaluation of the material.

Review the Postings

- 1. Execute Transaction code **CKMPCD**
- 2. Enter the document number and year that you wish to review.

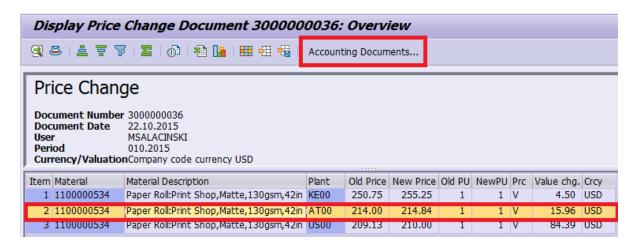


3. The document will show a line for each line material/plant combination adjusted. The "Value chg." field is showing the amount which was posted in the particular plant.

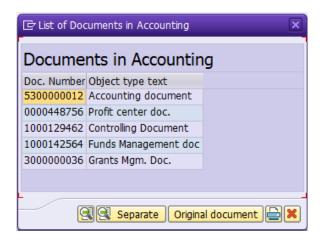




4. To view the accounting documents, select a line by clicking on it and then click on the 'Accounting Documents' button.

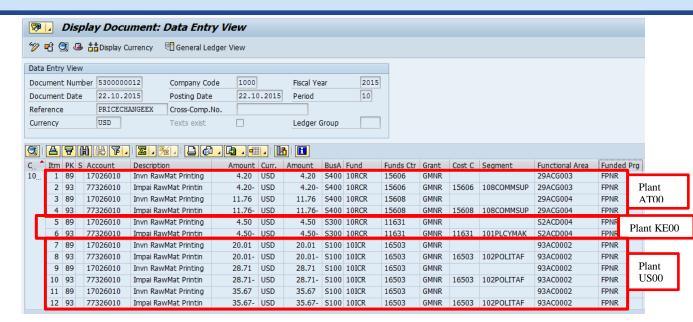


5. Double-click on the document you wish to review. Each will bring you to the appropriate document that you are familiar with.



6. The financial postings were split up across all inventory holding storage locations which are currently storing the price changed material. This means the total amount of postings (per plant) were split up among the Funds Management coding blocks of inventory holding storage locations based on how much portion of the material is stored in the particular storage location.





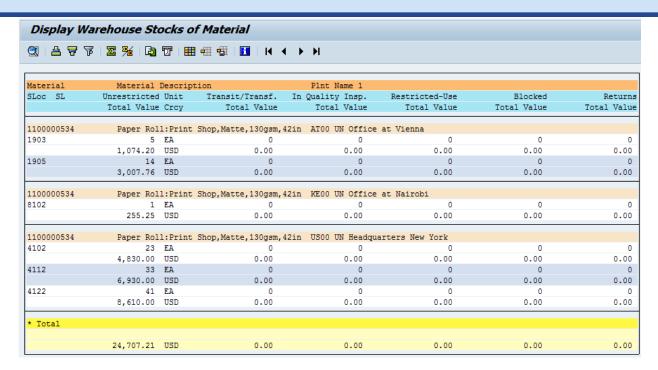
Review each document as necessary. You can press the back document to return to the Price Change document view.

7. The following calculation helps to understand how the above posting is generated. The quantity information is coming from the MB52 report which was mentioned earlier. The "Ratio" field is calculated based on the total quantity within a given plant and shows what portion is available in the particular storage location. Based on the expected posting value is calculated, which can be found in the previously mentioned accounting document

Plant/Storage	Quantity in	Ratio (within	Expected posted value
Location	location	plant)	
AT00 / 1903	5	26.32%	4.200672 -> 4.20 \$
AT00 / 1905	14	73.68%	11.75933 -> 11.76 \$
KE00 / 8102	1	100%	4.5\$
US00 / 4102	23	23.71%	20.00887 -> 20.01\$
US00 / 4112	33	34.02%	28.70948 -> 28.71\$
US00 / 4122	41	42.27%	35.67165 -> 35.67 \$

The following report is a snap-shot of MB52 report, used for the above detailed calculation





8. Last but not least, the "Reference" and "Doc. Header Text" information which were provided in the beginning of executing **MR21** transaction are copied into the header of the finance accounting document.





Troubleshooting Error Messages

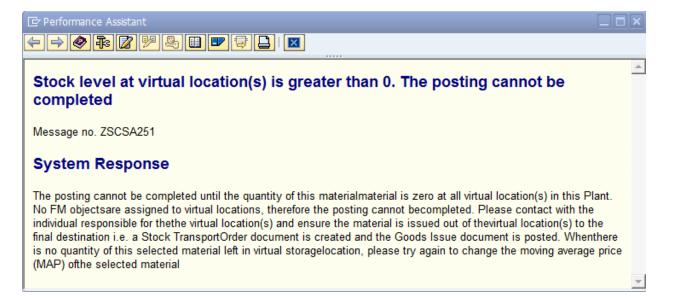
Price revaluation can be performed only if the materials are only in physical storage locations or at least on the way (Stock Transfer Order document is created) to the final, physical storage location. The reason behind is only physical storage locations are 'assigned' to Funds Management coding block elements (Fund, Fund Center, Functional Area), therefore the financial transactions can happen only based on such storage locations.

If any quantity of the particular material is available at a virtual storage location during the price change transaction (MR21 transaction) the system is raising an error message:

1. First thing you notice is the save of the document (the posting) is not performed and the following error appears on the bottom of the screen.



2. If you double click on the error, it gives you a generic overview about the reason why the posting was not completed.



3. As a next step, you can run the MB52 Logistic report to have a better understanding which entity has inventory in the virtual storage locations.



Display Warehouse Stocks of Material Material Description Plnt Name 1 SLoc SL Unrestricted Unit Transit/Transf. In Quality Insp. Restricted-Use Blocked Returns Total Value Crcy Total Value Total Value Total Value Total Value Total Value 1500004157 1,000.00 USD 0.00 0.00 0.00 0.00 1500004157 ET30 UN Economic Comm. for Africa Raincoat 2101 150 0.00 0.00 0.00 0.00 3,000.00 USD 0.00 1500004157 KE00 UN Office at Nairobi Raincoat EΑ 1,100 0.00 20,029.49 0.00 0.00 USD 0.00 0.00 2102 90 EA 0 1,638.78 USD 0.00 0.00 0.00 0.00 0.00 2103 11 EA 200.29 USD 0.00 0.00 0.00 0.00 0.00 4101 182.09 USD 0.00 0.00 0.00 0.00 0.00 5101 1,714 EA 31,209.59 USD 0.00 0.00 0.00 0.00 0.00 7102 1,050 EA 0 19,119.06 USD 0.00 0.00 0.00 145.67 0.00 7103 2 EA 36.42 USD 0.00 0.00 0.00 0.00 0.00 9000 360 EA 6,555.11 USD 0.00 0.00 0.00 0.00 0.00

4. As it can be seen in the above screen-shot, 360 quantity is available at UNON's virtual location, which need to be moved to the final, physical location. If materials are on the way to the final physical location, those quantities can be found in the report, without being linked to any storage location, like the 1100 quantity, also in UNON. The "in-transit" quantities will be considered for the financial posting, under the receiving plant/storage location's coding block, which information is coming from the related logistic document (Stock Transfer Order document).



PART 2: Corrections for Non-financial inventory MAP adjustments

Part one covered MAP adjustments for materials. However, often there may be a changed needed in MAP for a material purely for cost recovery purposes and materials revalued may be actually non-financial in nature.

The correction to the MAP will generate a posting to an inventory impairment account (in the P&L). This posting needs to be reversed to the manual inventory account created for the particular inventory class.

It's also necessary to remember that when inventory is revalued, it is revalued for an entire plant. Part of this material may be financial and part of it non-financial.

Let's assume from the above example that the MR21 adjustment performed on the material in the KE00 Plant relates to non-financial inventory. To correct the effect on the trial balance the following would be posted.

The correction to the GL needs to be done using t-code FV-50

Document type SF to be used.

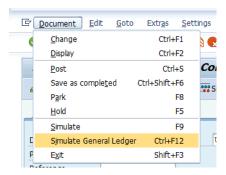
- 1. T-code FV50
- 2. Enter the Doc date and Posting date (same period as the MR21 posting)
- 3. Enter Header Text as appropriate
- 4. Doc type SF
- Credit the Expense impairment account (use the same fund and fund center as the MR21 posting)
- 6. Debit the **Manual** Inventory Account (use the same fund and fund center as the MR21 posting). For a list of Main and Manual inventory accounts please see Annex A.





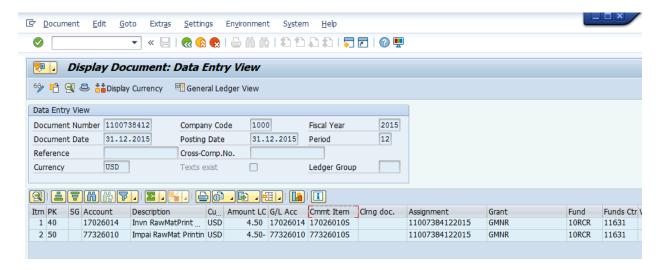
Note, it is very important to ensure that Doc type SF is used. This should ensure that the Commitment Items (CI) called in FM are statistical and that FM balances are not affected.

7. Simulate the posting in GL



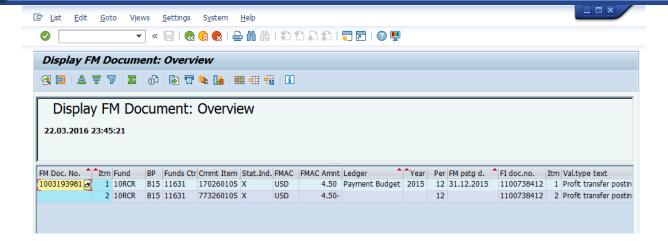
Ensure that you display the GL account as well as the CI that will be used in the posting. Check that the commitment item used is statistical.

8. Once the document is posted in work flow please check the accounting documents (FI and FM)



Always check the FM document posted to ensure that the effect was statistical (i.e. available budget has not been affected).







Annex A: Valuation class, Inventory Account, Consumption Account*

Valuation Class	Inventory Account (current Asset)	Inventory Account GL description	Manual Reversal Account (Current Asset)	Consumption Account (Expenditure Account)	Impairment Account (Expenditure Account)
F015	17001010	Invent Sanitary and Cleaning Supply	17001014	77001010	77301010
F016	17001510	Invent Public Information Supply	17001514	77001510	77301510
F017	17002010	Invent Uniform Badge and Gear	17002014	77002010	77302010
G001	17002510	Invent Medical Supply	17002514	77002510	77302510
J001	17003010	Invent Packaging Material	17003014	77003010	77303010
F020	17003510	Invent Stationary and Office Supply	17003514	77003510	77303510
F021	17004010	Invent Mine Detection and Clearing Supply	17004014	77004010	77304010
F022	17004510	Invent Ammunition	17004514	77004510	77304510
B001	17005010	Invent Spare Part Generic Supply	17005014	77005010	77305010
B003	17005410	Invent Spare Part IT End User	17005414	77005410	77305410
B004	17005420	Invent Spare Part IT Computer and Media Storage	17005424	77005420	77305420
B005	17005810	Invent Spare Part Communication and Network	17005814	77005810	77305810
B006	17006210	Invent Spare Part Engineering	17006214	77006210	77306210
B002	17006610	Invent Spare Part Ground Transport	17006614	77006610	77306610
B007	17007010	Invent Spare Part Air Transport	17007014	77007010	77307010
B008	17007410	Invent Spare Part Marine Transport	17007414	77007410	77307410
F025	17007610	Invent Engineering Supply	17007614	77007610	77307610
1001	17008010	Invent Petrol Oil and Lubricants Facility Infrastr	17008014	77008010	77308010
1002	17008210	Invent Petrol Oil and Lubricants Air Transport	17008214	77008220	77308210
H001	17009010	Invent Ration	17009014	77009010	77309010
F023	17009030	Invent Water Bottle	17009034	77009030	77309030
E001	17011010	Invent Publication for Sale	17011014	77011010	77311010
E002	17012010	Invent Stamp for Sale	17012014	77012010	77312010
E003	17019010	Invent Liquor for Sale	17019014	77019010	77319010
A001	17021010	Invent Raw Material Construction	17021014	77021010	77321010
A005	17023010	Invent Raw Material Textile	17023014	77023010	77323010
A002	17026010	Invent Raw Material Printing	17026014	77026010	77326010
A003	17027010	Invent Raw Material Bottling	17027014	77027010	77327010
A004	17143050	Invent PreFab Unassembled	17143054	77143050	77443050
F001	17151010	Invent Office Equip	17151014	77151010	77451010
F002	17152010	Invent Furniture	17152014	77152010	77452010
F003	17156010	Invent Fixture	17156014	77156010	77456010
F026	17159010	Invent Library Reference Book Set	17159014	77159010	77459010
F004	17171010	Invent IT Equip End User	17171014	77171010	77471010
F005	17171020	Invent IT Equip Computer and Storage	17171024	77171020	77471020
F019	17171510	Invent Communication and Network Equip	17171514	77171510	77471510



Valuation Class	Inventory Account (current Asset)	Inventory Account GL description	Manual Reversal Account (Current Asset)	Consumption Account (Expenditure Account)	Impairment Account (Expenditure Account)
F018	17172010	Invent Audio Visual Equip	17172014	77172010	77472010
F006	17172510	Invent Medical Equip	17172514	77172510	77472510
F012	17173010	Invent Safety and Security Equip	17173014	77173010	77473010
F013	17173510	Invent Mine Detection and Clearing Equip	17173514	77173510	77473510
F014	17174010	Invent Accommodation and Refrigeration Equip	17174014	77174010	77474010
F008	17174510	Invent Printing Publishing and Conf Equip	17174514	77174510	77474510
F007	17175010	Invent Engineering Machinery Equip	17175014	77175010	77475010
F009	17176010	Invent Water Treatment and Fuel Distribution	17176014	77176010	77476010
F010	17177010	Invent Ground Transport Equip	17177014	77177010	77477010
F011	17177510	Invent Air Transport Equip	17177514	77177510	77477510
F024	17178010	Invent Marine Transport Equip	17178014	77178010	77478010

^{*} As at November 2015.