**Inventory report in MES**

**Business requirement:**

To have a report from MES database, containing information about the inventory that summarizes quantities per plant and per inventory status OR per storage locations(warehouse) and inventory status in one line in order to make more effective the inventory control work in materials management.

**Selection parameters:**

1. Facility (plant): Input value (example KNEE) (and / or range)
2. Warehouse: Input needed values (example EW1 and EP1) (and / or range). It is possible to select no warehouse.
   * + - * Beside each selected warehouse, there will be a button to combine (sum-up) the quantities for 2 or more warehouses together per inventory status
3. Material: Input needed values. It can be one material, several materials or a range of materials. Ensure that it is also possible to select a range of materials.

**Report columns and their values**

The report will bring the following columns once it is executed:

1. Facility (plant): KNEE (the one selected on selection parameters)
2. Warehouse:
   1. EW1 / EP1 (the one / ones selected on the selection parameters)
   2. If selected combined, it should bring the info of the combined warehouses values that were selected
   3. If no warehouse was selected, the report will not provide info at warehouse level but only at facility level (and so, the quantity in column E will be the sum of all the rows per material for that plant)
3. Material: The different material (s) selected on the selection parameters
4. Inventory status: If quantities are available, the system will show them per:
   1. Unrestricted use,
   2. Quality inspection
   3. Blocked
   4. Other, in case that there is some other statuses
5. Quantity (this is the sum of Qty available and Qty allocated per inventory status of the material depending on the warehouse possibilities in point 2), meaning:
   1. No warehouse selected in the selection parameters: In this case, the program will sum up per material at each facility/plant level the Qty available plus Qty allocated based on the different inventory statuses

Example data in IVL for this case:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Facility** | **Warehouse** | **Material** | **Inventory st** | **Qty avail** | **Qty alloc** | **UOM** |
| KNEE | EW1 | KM782980G01 | Unrestricted use | 10 |  | PCE |
| KNEE | EP1 | KM782980G01 | Unrestricted use | 20 | 5 | PCE |
| KNEE | EW1 | KM782980G01 | Blocked | 1 |  | PCE |
| KNEE | EP1 | KM782980G01 | Quality inspection | 5 |  | PCE |
| KNEE | EP1 | KM782980G01 | Quality inspection | 5 |  | PCE |

Data showed in the report:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Facility** | **Warehouse** | **Material** | **Inventory st** | **Quantity** | **UOM** |
| KNEE | empty | KM782980G01 | Unrestricted use | 35 | PCE |
| KNEE | empty | KM782980G01 | Blocked | 1 | PCE |
| KNEE | empty | KM782980G01 | Quality inspection | 10 | PCE |

Instead of showing the different rows from IVL, the report summarizes the material quantities at the plant level based on the different inventory statuses.

* 1. One warehouse selected

Data in IVL:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Facility** | **Warehouse** | **Material** | **Inventory st** | **Qty avail** | **Qty alloc** | **UOM** |
| KNEE | EW1 | KM782980G01 | Unrestricted use | 10 |  | PCE |
| KNEE | EW1 | KM782980G01 | Unrestricted use | 20 | 5 | PCE |
| KNEE | EW1 | KM782980G01 | Blocked | 1 |  | PCE |
| KNEE | EW1 | KM782980G01 | Quality inspection | 5 |  | PCE |
| KNEE | EW1 | KM782980G01 | Quality inspection | 5 |  | PCE |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

Data showed in the report:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Facility** | **Warehouse** | **Material** | **Inventory st** | **Quantity** | **UOM** |
| KNEE | EW1 | KM782980G01 | Unrestricted use | 35 | PCE |
| KNEE | EW1 | KM782980G01 | Blocked | 1 | PCE |
| KNEE | EW1 | KM782980G01 | Quality inspection | 10 | PCE |

* 1. Several warehouses selected without selecting the button to combine them together:

Data in IVL:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Facility** | **Warehouse** | **Material** | **Inventory st** | **Qty avail** | **Qty alloc** | **UOM** |
| KNEE | EW1 | KM782980G01 | Unrestricted use | 10 |  | PCE |
| KNEE | EP1 | KM782980G01 | Unrestricted use | 20 | 5 | PCE |
| KNEE | EW1 | KM782980G01 | Blocked | 1 |  | PCE |
| KNEE | EP1 | KM782980G01 | Quality inspection | 5 |  | PCE |
| KNEE | EP1 | KM782980G01 | Quality inspection | 5 |  | PCE |
| KNEE | EW1 | KM782980G01 | Unrestricted use | 5 |  | PCE |
|  |  |  |  |  |  |  |

The report will show:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Facility** | **Warehouse** | **Material** | **Inventory st** | **Quantity** | **UOM** |
| KNEE | EW1 | KM782980G01 | Unrestricted use | 15 | PCE |
| KNEE | EW1 | KM782980G01 | Blocked | 1 | PCE |
| KNEE | EP1 | KM782980G01 | Unrestricted use | 25 | PCE |
| KNEE | EP1 | KM782980G01 | Quality inspection | 10 | PCE |

* 1. Several warehouses selected with the button to combine them together

In this case, EW1 and EP1 were selected and the button “combine warehouses” together was selected

Data in IVL:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Facility** | **Warehouse** | **Material** | **Inventory st** | **Qty avail** | **Qty alloc** | **UOM** |
| KNEE | EW1 | KM782980G01 | Unrestricted use | 10 |  | PCE |
| KNEE | EP1 | KM782980G01 | Unrestricted use | 20 | 5 | PCE |
| KNEE | EW1 | KM782980G01 | Blocked | 1 |  | PCE |
| KNEE | EP1 | KM782980G01 | Quality inspection | 5 |  | PCE |
| KNEE | EP1 | KM782980G01 | Quality inspection | 5 |  | PCE |
| KNEE | EW1 | KM782980G01 | Unrestricted use | 5 |  | PCE |
|  |  |  |  |  |  |  |

The report will show:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Facility** | **Warehouse** | **Material** | **Inventory st** | **Quantity** | **UOM** |
| KNEE | EW1-EP1 | KM782980G01 | Unrestricted use | 40 | PCE |
| KNEE | EW1-EP1 | KM782980G01 | Blocked | 1 | PCE |
| KNEE | EW1-EP1 | KM782980G01 | Quality inspection | 10 | PCE |

1. UOM