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/* Freek Keijzer, myBrand, 28.08.2020
In selection screen a.o. entries for 'Start period' and 'End period'.
In initial view following key figures:
- Stock Quantity/Value at start of period
- Receipt/Issue as Quantity/Value within period
- Stock Quantity/Value at end of period
Drill-down can go down to most detailed level:
Material Document Item.

Stock levels are determined from goods movements with
Posting Date <= key date.

Key figures taken from cube-view:
- Quantities:
    MatlStkChangeQtyInBaseUnit
    GoodsReceiptQtyInBaseUnit
    GoodsIssueQtyInBaseUnit
- Amounts using current price (custom enhancement):
    MatlStkChangeVal
    GoodsReceiptVal
    GoodsIssueVal

Key figures defined in this query-view:
- Quantities:
    MatlStkQtyStart
    MatlStgQtyEnd
    GoodsReceiptQtyStart
    GoodsIssueQtyStart
    GoodsReceiptQtyEnd
    GoodsIssueQtyEnd
    GoodsReceiptQtyInPer
    GoodsIssueQtyInPer
- Amounts using current price:
    MatlStkValStart
    MatlStkValEnd
    GoodsReceiptValStart
    GoodsIssueValStart
    GoodsReceiptValEnd
    GoodsIssueValEnd
    GoodsReceiptValInPer
    GoodsIssueValInPer
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Change-log:
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@EndUserText.label: 'MM: Goods Movements & Stock, 1 period'
@AbapCatalog.sqlViewName: 'ZQMMINVGDSMV1P'

@VDM.viewType: #CONSUMPTION
@Analytics.query: true
@Analytics.settings.maxProcessingEffort: #HIGH
@OData.publish: true
@AbapCatalog.compiler.compareFilter: true
@AbapCatalog.preserveKey: true
@AccessControl.authorizationCheck: #CHECK

define view ZQ_MM_INV_GDSMV_1PER
with parameters
    @EndUserText.label: 'Start period'
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      @AnalyticsDetails.query.variableSequence : 110
      p_StartDate : abap.dats,
      @EndUserText.label: 'End period'
      @AnalyticsDetails.query.variableSequence : 120
      p_EndDate : abap.dats
as select from ZC_MM_INV_GDSMV
{
//KEY FIGURES
//--Stock Quantity/Value at start of period
      @EndUserText.label: 'Stock Qty start per.'
      case
        when PostingDate < :p_StartDate then MatlStkChangeQtyInBaseUnit
        else                                 0
      end as MatlStkQtyStart,                      //Stock Quantity at start of period

      @AnalyticsDetails.query.decimals: 0
      @EndUserText.label: 'Stock Val.start per.'
      case
        when PostingDate < :p_StartDate then MatlStkChangeVal
        else                                 0
      end as MatlStkValStart,                      //Stock Value at start of period

//--Quantity/Value Received/Issued within period
      @DefaultAggregation: #FORMULA
      @AnalyticsDetails.query.formula: '$projection.GoodsReceiptQtyEnd - $projection.GoodsReceiptQtyStart'
      @EndUserText.label: 'Qty Rec.in per.'
      0 as GoodsReceiptQtyInPer,                   //Quantity Received within period

      @DefaultAggregation: #FORMULA
      @AnalyticsDetails.query.formula: '$projection.GoodsIssueQtyEnd - $projection.GoodsIssueQtyStart'
      @EndUserText.label: 'Qty Iss.in per.'
      0 as GoodsIssueQtyInPer,                     //Quantity Issued within period

      @AnalyticsDetails.query.decimals: 0
      @DefaultAggregation: #FORMULA
      @AnalyticsDetails.query.formula: '$projection.GoodsReceiptValEnd - $projection.GoodsReceiptValStart'
      @EndUserText.label: 'Val.Rec.in per.'
      0 as GoodsReceiptValInPer,                   //Value Received within period

      @AnalyticsDetails.query.decimals: 0
      @DefaultAggregation: #FORMULA
      @AnalyticsDetails.query.formula: '$projection.GoodsIssueValEnd - $projection.GoodsIssueValStart'
      @EndUserText.label: 'Val.Iss.in per.'
      0 as GoodsIssueValInPer,                     //Value Issued within period

//--Stock Quantity/Value at end of period
      @EndUserText.label: 'Stock Qty end per.'
      case
        when PostingDate <= :p_EndDate then MatlStkChangeQtyInBaseUnit
        else                                0
      end as MatlStgQtyEnd,                        //Stock Quantity at end of period

      @AnalyticsDetails.query.decimals: 0
      @EndUserText.label: 'Stock Val.end per.'
      case
        when PostingDate <= :p_EndDate then MatlStkChangeVal
        else                                0
      end as MatlStkValEnd,                        //Stock Value at end of period
```

```
//--INTERMEDIATE RESULTS
//--Quantity/Value Received/Issued at start of period
    @AnalyticsDetails.query.hidden: true
    @EndUserText.label: 'Qty Rec.start per.'
    case
      when PostingDate < :p_StartDate then GoodsReceiptQtyInBaseUnit
      else                                 0
    end as GoodsReceiptQtyStart,              //Quantity Received at start of period

    @AnalyticsDetails.query.hidden: true
    @EndUserText.label: 'Qty Iss.start per.'
    case
      when PostingDate < :p_StartDate then GoodsIssueQtyInBaseUnit
      else                                 0
    end as GoodsIssueQtyStart,                //Quantity Issued at start of period

    @AnalyticsDetails.query.decimals: 0
    @AnalyticsDetails.query.hidden: true
    @EndUserText.label: 'Val.Rec.start per.'
    case
      when PostingDate < :p_StartDate then GoodsReceiptVal
      else                                 0
    end as GoodsReceiptValStart,              //Value Received at start of period

    @AnalyticsDetails.query.decimals: 0
    @AnalyticsDetails.query.hidden: true
    @EndUserText.label: 'Val.Iss.start per.'
    case
      when PostingDate < :p_StartDate  then GoodsIssueVal
      else                                  0
    end as GoodsIssueValStart,                //Value Issued at start of period

//--Quantity/Value Received/Issued at end of period
    @AnalyticsDetails.query.hidden: true
    @EndUserText.label: 'Qty Rec.end per.'
    case
      when PostingDate <= :p_EndDate then GoodsReceiptQtyInBaseUnit
      else                                 0
    end as GoodsReceiptQtyEnd,                //Quantity Received at end of period

    @AnalyticsDetails.query.hidden: true
    @EndUserText.label: 'Qty Iss.end per.'
    case
      when PostingDate <= :p_EndDate then GoodsIssueQtyInBaseUnit
      else                                 0
    end as GoodsIssueQtyEnd,                  //Quantity Issued at end of period

    @AnalyticsDetails.query.decimals: 0
    @AnalyticsDetails.query.hidden: true
    @EndUserText.label: 'Val.Rec.end per.'
    case
      when PostingDate <= :p_EndDate then GoodsReceiptVal
      else                                 0
    end as GoodsReceiptValEnd,                //Value Received at end of period

    @AnalyticsDetails.query.decimals: 0
    @AnalyticsDetails.query.hidden: true
    @EndUserText.label: 'Val.Iss.end per.'
    case
```

```
        when PostingDate <= :p_EndDate  then GoodsIssueVal
        else                                  0
    end as GoodsIssueValEnd,                //Value Issued at end of period

//CHARACTERISTICS IN ROWS
    @Consumption.filter: {selectionType: #SINGLE, multipleSelections: true, mandatory: false}
    @AnalyticsDetails.query.variableSequence : 10
    @AnalyticsDetails.query.axis: #ROWS
    Material,                               //Material Number (matdoc.matnr)
    @Consumption.filter: {selectionType: #SINGLE, multipleSelections: true, mandatory: false}
    @AnalyticsDetails.query.variableSequence : 20
    @AnalyticsDetails.query.axis: #ROWS
    Plant,                                  //Plant (matdoc.werks)

//FREE CHARACTERISTICS
    @Consumption.filter: {selectionType: #SINGLE, multipleSelections: true, mandatory: false}
    @AnalyticsDetails.query.variableSequence : 30
    StorageLocation,                        //Storage location (matdoc.lgort)
    @Consumption.filter: {selectionType: #SINGLE, multipleSelections: true, mandatory: false}
    @AnalyticsDetails.query.variableSequence : 40
    MaterialGroup,                          //Material Group (mara.matkl)
    @Consumption.filter: {selectionType: #SINGLE, multipleSelections: true, mandatory: false}
    @AnalyticsDetails.query.variableSequence : 50
    MaterialType,                           //Material Type (mara.mtart)
    @Consumption.filter: {selectionType: #SINGLE, multipleSelections: true, mandatory: false}
    @AnalyticsDetails.query.variableSequence : 70
    InventorySpecialStockType,              //Special Stock Indicator (matdoc.sobkz)
    @Consumption.filter: {selectionType: #SINGLE, multipleSelections: true, mandatory: false}
    @AnalyticsDetails.query.variableSequence : 80
    InventoryStockType,                     //Stock Type of Goods Movement (Stock Identifier) (matdoc.lbbsa_sid)
    Batch,                                  //Batch Number (matdoc.charg)
    StockOwner,                             //Additional Supplier for Special Stock (matdoc.disub_owner)
    CompanyCode,                            //Company Code (matdoc.bukrs)
    InventorySpecialStockValnType,          //Valuation of Special Stock (matdoc.kzbws)
    CompanyCodeCurrency,                    //Currency Key (matdoc.waers)
    MaterialBaseUnit,                       //Base Unit of Measure (matdoc.meins)
    IsReversalMovementType,                 //Reversal movement type (matdoc.reversal_movement)
    GoodsMovementType,                      //Movement type (inventory management) (matdoc.bwart)
    GoodsMovementReasonCode,                //Reason for Movement (matdoc.grund)
    InventoryValuationType,                 //Valuation Type (matdoc.bwtar)
    PostingDate,                            //Posting Date in the Document (matdoc.budat)

    MaterialDocumentYear,                   //Material Document Year (matdoc.mjahr)
    MaterialDocument,                       //Number of Material Document (matdoc.mblnr)
    MaterialDocumentItem,                   //Item in Material Document (matdoc.zeile)

//-------------------------------------------------------------------------------------------
//------From here on standard SAP code
//-------------------------------------------------------------------------------------------

  // Stock Transfers
  // IssuingOrReceivingPlant and IssuingOrReceivingStorageLoc are not part because of access restrictions
  // the analyzing user would require access permissions for both plants to see the one record
  IssgOrRcvgMaterial,
  IssgOrRcvgBatch,
  IssgOrRcvgSpclStockInd,
  IssuingOrReceivingStockType,

  // Cancellation information
```

```
  GoodsMovementIsCancelled,

  // Periods & Times
  DocumentDate,
/*  @Consumption: {
    filter:     {selectionType:     #INTERVAL},
    derivation: {
        lookupEntity: 'C_SglGregorianCalDateFunction',
        resultElement: 'DateFunctionStartDate', binding: [
            { targetParameter: 'P_DateFunction', type: #CONSTANT, value : 'PREVIOUSYEARTODATE' },
            { targetParameter : 'P_Language' , type : #SYSTEM_FIELD, value : '#SYSTEM_LANGUAGE'  } ],
        resultElementHigh: 'DateFunctionEndDate' }
  } */
  FiscalYearVariant,
  FiscalYear,
  FiscalYearPeriod,
  YearDay,
  YearWeek,
  YearMonth,
  YearQuarter,
  CalendarQuarter,
  CalendarMonth,
  CalendarWeek,
  CalendarDay,
  WeekDay,

  // Reference Documents - must not refer to transaction dimension views (target dimension DLC would not be considered!)
  SalesOrder,
  SalesOrderItem,
  SalesOrderScheduleLine,
  PurchaseOrder,
  PurchaseOrderItem,
  DeliveryDocument,
  DeliveryDocumentItem,
  WBSElementInternalID,
      ManufacturingOrder,
      ManufacturingOrderItem,

  // Master Data fields out of the Reference Documents
  PurchasingGroup,
  PurchasingOrganization,
  SalesOrganization,
  DistributionChannel,
  OrganizationDivision,
  SalesGroup,

  // Other
  Supplier,
  Customer,

  //Accounting data
  AccountAssignmentCategory,
  CostObject,
  CostCenter,
  ControllingArea,
  ProfitabilitySegment,
  ProfitCenter,
  GLAccount,
  FunctionalArea,
```

```
      // Classifications
      StockChangeCategory,
      IsConsumptionMovement,
      IsCrossPlantTransfer,
      IsStorageLocChangeByTransf,
      IsMaterialChangeByTransf,
      IsBatchChangeByTransf,
      IsSpclStkTypeChangeByTransf,
      IsStockTypeChangeByTransf


} where IsEffectiveGoodsMovement = 'X'
```