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/* Freek Keijzer, myBrand, 30.08.2020
Based on standard SAP cube-view I_AugmentedGoodsMovement.

Enhancement: Calculation of goods movement & stock values using current price.
Logic copied from standard SAP CDS-view P_MatStkQtyValCur2.
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Change-log:
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@EndUserText.label: 'MM: Goods Movements & Stock, enrichment'
@AbapCatalog.sqlViewName: 'ZPMMINVGDSMV'

@AbapCatalog.compiler.compareFilter: true
@AbapCatalog.preserveKey: true
@AccessControl.authorizationCheck: #CHECK

define view ZP_MM_INV_GDSMV
as select from ZP_I_GoodsMovementDocument as I_GoodsMovementDocument
// Associations required for authorization checks
left outer to one join I_StorageLocation as _AuthStorageLocation on I_GoodsMovementDocument.Plant = _AuthStorageLocation.Plant
                                                   and I_GoodsMovementDocument.StorageLocation = _AuthStorageLocation.StorageLocation
                                                   and _AuthStorageLocation.IsStorLocAuthznCheckActive = 'X'
left outer to one join I_StorageLocation as _AuthStorageLocationTr on IssuingOrReceivingPlant = _AuthStorageLocationTr.Plant
                                                   and IssuingOrReceivingStorageLoc = _AuthStorageLocationTr.StorageLocation
                                                   and _AuthStorageLocationTr.IsStorLocAuthznCheckActive = 'X'


//-------------------------------------------------------------------------------------------
//------Start of custom enhancement, part 1/2
//-------------------------------------------------------------------------------------------
  association[0..1] to I_CurrentMatlPriceByCostEst as _CurrentInvtryPrice on  $projection.CostEstimate = _CurrentInvtryPrice.CostEstimate
//-------------------------------------------------------------------------------------------
//------End of custom enhancement, part 1/2
//-------------------------------------------------------------------------------------------

{
      @Semantics.calendar.year: true
  key MaterialDocumentYear,
  key MaterialDocument,
  key MaterialDocumentItem,
  key MaterialDocumentRecordType,

//-------------------------------------------------------------------------------------------
//------Start of custom enhancement, part 2/2
//-------------------------------------------------------------------------------------------
//--Additional field for determination of current price
    CostEstimate,                                 // Cost Estimate Number - Product Costing (matdoc.kalnr)

//--Amount using current price, logic copied from standard SAP CDS-view P_MatStkQtyValCur2
    @Semantics.amount.currencyCode: 'CompanyCodeCurrency'
    @DefaultAggregation: #NONE
    cast( round(
                cast(MatlStkChangeQtyInBaseUnit as abap.dec( 18, 3 )) *
                division(
                        cast(_CurrentInvtryPrice.InventoryPrice as abap.dec( 11, 2 )),
                        cast(_CurrentInvtryPrice.MaterialPriceUnitQty as abap.dec( 5, 0 )),
                        5
                    )
                  , 3
              )
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                  as nsdm_stk_chg_amount
            ) as MatlStkChangeVal,
//------------------------------------------------------------------------------------------
//------End of custom enhancement, part 2/2
//------------------------------------------------------------------------------------------

      I_GoodsMovementDocument.Plant,
      I_GoodsMovementDocument.StorageLocation,
      Material,
      Batch,
      InventorySpecialStockType,
      InventoryStockType,
      StockOwner,
      CompanyCode,
      InventorySpecialStockValnType,
      @Semantics.currencyCode: true
      CompanyCodeCurrency,
      @Semantics.unitOfMeasure: true
      MaterialBaseUnit,
      IsReversalMovementType,

      // Stock Transfers
      IssuingOrReceivingPlant,
      IssuingOrReceivingStorageLoc,
      IssgOrRcvgMaterial,
      IssgOrRcvgBatch,
      IssgOrRcvgSpclStockInd,
      IssuingOrReceivingStockType,

      // Cancellation information
      GoodsMovementIsCancelled,

      // Periods & Times
      @Semantics.businessDate.at: true
      DocumentDate,
      @Semantics.businessDate.createdAt: true
      PostingDate,
      @Semantics.fiscal.yearVariant: true
      FiscalYearVariant,
      FiscalYear,
      @Semantics.fiscal.yearPeriod: true
      FiscalYearPeriod,
      YearDay,
      @Semantics.calendar.yearWeek: true
      YearWeek,
      @Semantics.calendar.yearMonth: true
      YearMonth,
      @Semantics.calendar.yearQuarter: true
      YearQuarter,
      @Semantics.calendar.quarter: true
      CalendarQuarter,
      @Semantics.calendar.month: true
      CalendarMonth,
      @Semantics.calendar.week: true
      CalendarWeek,
      @Semantics.calendar.dayOfYear: true
      CalendarDay,
      WeekDay,
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    // Reference Documents
    SalesOrder,
    SalesOrderItem,
    SalesOrderScheduleLine,
    PurchaseOrder,
    PurchaseOrderItem,
    DeliveryDocument,
    DeliveryDocumentItem,
    WBSElementInternalID,
    ManufacturingOrder,
    ManufacturingOrderItem,

    // Other
    GoodsMovementType,
    GoodsMovementReasonCode,
    InventoryValuationType,
    Supplier,
    Customer,

    AccountAssignmentCategory,
    CostObject,
    CostCenter,
    ControllingArea, // required to fulfill requirement to expose the full key (for cost center association)
    ProfitabilitySegment,
    ProfitCenter,
    GLAccount,
    FunctionalArea,

    // Amounts
    @Semantics.amount.currencyCode: 'CompanyCodeCurrency'
    @DefaultAggregation: #NONE
    case when GoodsMovementStkAmtInCCCrcy <> 0 then
    cast(GoodsMovementStkAmtInCCCrcy as nsdm_stk_chg_amount preserving type) end as GoodsMovementStkAmtInCCCrcy,
    @Semantics.amount.currencyCode: 'CompanyCodeCurrency'
    @DefaultAggregation: #NONE
    case when GoodsMvtCnsmpnAmtInCCCrcy <> 0 then
    cast(GoodsMvtCnsmpnAmtInCCCrcy as nsdm_cons_amount preserving type) end as GoodsMvtCnsmpnAmtInCCCrcy,

    // Quantities
    @Semantics.quantity.unitOfMeasure: 'MaterialBaseUnit'
    @DefaultAggregation: #NONE
    case when MatlStkChangeQtyInBaseUnit <> 0 then
    cast(MatlStkChangeQtyInBaseUnit as nsdm_stk_chg_qty preserving type) end as MatlStkChangeQtyInBaseUnit,
    @Semantics.quantity.unitOfMeasure: 'MaterialBaseUnit'
    @DefaultAggregation: #NONE
    case when MatlCnsmpnQtyInMatlBaseUnit <> 0 then
    cast(MatlCnsmpnQtyInMatlBaseUnit as nsdm_cons_qty preserving type) end as MatlCnsmpnQtyInMatlBaseUnit,


    // Classifications
    @ObjectModel.foreignKey.association: '_StockChangeCategory'
    StockChangeCategory,
    IsEffectiveGoodsMovement,
    IsConsumptionMovement,
    IsCrossPlantTransfer,
    IsStorageLocChangeByTransf,
    IsMaterialChangeByTransf,
    IsBatchChangeByTransf,
    IsSpclStkTypeChangeByTransf,
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    IsStockTypeChangeByTransf,

    // Derived Count Key Figures
    cast ( 1 as nsdm_number_of_gds_mvt) as NumberOfGoodsMovements,


    cast ( case when StockChangeCategory = 'GI' then 1
                else 0
    end as nsdm_number_of_gi_mvt ) as NumberOfGoodsIssues,


    cast ( case when StockChangeCategory = 'GR' then 1
        else 0
    end as nsdm_number_of_gr_mvt ) as NumberOfGoodsReceipts,


    cast ( case when IsReversalMovementType = 'X' then 1
        else 0
    end as nsdm_number_of_rev_mvt ) as NumberOfReversalMovements,


    // Derived Quantity Key Figures
    @Semantics.quantity.unitOfMeasure: 'MaterialBaseUnit'
    @DefaultAggregation: #NONE
    cast ( case when IsEffectiveGoodsMovement = 'X' and IsConsumptionMovement = 'X' then MatlCnsmpnQtyInMatlBaseUnit
    end as nsdm_effctv_cons_qty preserving type) as EffectiveCnsmpnQtyInBaseUnit,


    @Semantics.quantity.unitOfMeasure: 'MaterialBaseUnit'
    @DefaultAggregation: #NONE
    cast ( case when IsEffectiveGoodsMovement = 'X' and StockChangeCategory = 'GI' then
      case when MatlStkChangeQtyInBaseUnit < 0  then MatlStkChangeQtyInBaseUnit * -1 else MatlStkChangeQtyInBaseUnit end
    end as nsdm_effctv_gi_qty preserving type) as EffctvGdsIssueQtyInBaseUnit,


    @Semantics.quantity.unitOfMeasure: 'MaterialBaseUnit'
    @DefaultAggregation: #NONE
    cast ( case when StockChangeCategory = 'GI' then MatlStkChangeQtyInBaseUnit * -1
      -- case when MatlStkChangeQtyInBaseUnit < 0  then MatlStkChangeQtyInBaseUnit * -1 else MatlStkChangeQtyInBaseUnit end
    end as nsdm_gi_qty preserving type) as GoodsIssueQtyInBaseUnit,


    @Semantics.quantity.unitOfMeasure: 'MaterialBaseUnit'
    @DefaultAggregation: #NONE
    cast ( case when IsEffectiveGoodsMovement = 'X' and StockChangeCategory = 'GR' then
      case when MatlStkChangeQtyInBaseUnit < 0  then MatlStkChangeQtyInBaseUnit * -1 else MatlStkChangeQtyInBaseUnit end
    end as nsdm_effctv_gr_qty preserving type) as EffctvGdsReceiptQtyInBaseUnit,


    @Semantics.quantity.unitOfMeasure: 'MaterialBaseUnit'
    @DefaultAggregation: #NONE
    cast ( case when StockChangeCategory = 'GR' then MatlStkChangeQtyInBaseUnit
      -- case when MatlStkChangeQtyInBaseUnit < 0  then MatlStkChangeQtyInBaseUnit * -1 else MatlStkChangeQtyInBaseUnit end
    end as nsdm_gr_qty preserving type) as GoodsReceiptQtyInBaseUnit,


    @Semantics.quantity.unitOfMeasure: 'MaterialBaseUnit'
    @DefaultAggregation: #NONE
    cast ( case when StockChangeCategory = 'GI'
        then MatlStkChangeQtyInBaseUnit * -1 -- case when MatlStkChangeQtyInBaseUnit < 0  then MatlStkChangeQtyInBaseUnit * -1 else
MatlStkChangeQtyInBaseUnit end
        else case when StockChangeCategory = 'GR'
        then MatlStkChangeQtyInBaseUnit end --case when MatlStkChangeQtyInBaseUnit < 0  then MatlStkChangeQtyInBaseUnit * -1 else
MatlStkChangeQtyInBaseUnit end end
    end as nsdm_gds_mvt_qty preserving type) as TotalGdsMvtQtyInBaseUnit,

    @Semantics.amount.currencyCode: 'CompanyCodeCurrency'
    @DefaultAggregation: #NONE
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    cast( case when StockChangeCategory = 'GR' then GoodsMovementStkAmtInCCCrcy end
      as nsdm_gr_amount preserving type) as GoodsReceiptAmountInCoCodeCrcy,

    @Semantics.amount.currencyCode: 'CompanyCodeCurrency'
    @DefaultAggregation: #NONE
    cast( case when StockChangeCategory = 'GI' then GoodsMovementStkAmtInCCCrcy * -1 end
      as nsdm_gi_amount) as GoodsIssueAmountInCoCodeCrcy,

  // Authorization relevant fields
  _AuthStorageLocation.IsStorLocAuthznCheckActive as IsStorLocAuthznCheckActive,
  _AuthStorageLocationTr.IsStorLocAuthznCheckActive as IsIssgOrRcvgStorLocAuthChkActv,

  // Associations
  I_GoodsMovementDocument._Plant,
  I_GoodsMovementDocument._StorageLocation,
  _Material,
  _InventorySpecialStockType,
  _InventoryStockType,
  _BPStockOwner,
  _IssgOrRcvgMaterial,
  _IssuingOrReceivingPlant,
  _IssuingOrReceivingStorageLoc,
  _IssgOrRcvgSpclStockInd,
  _IssuingOrReceivingStockType,
  _CostCenter,
  _ControllingArea,
  _AccountAssignmentCategory,
  _ProfitCenter,
  _GLAccount,
  _FunctionalArea,

  _GoodsMovementType,
  _GoodsMovementReasonCode,
  _InventoryValuationType,
  _CompanyCode,
  _SalesOrder,
  _SalesOrderItem,
  _SalesOrderScheduleLine,
  _PurchaseOrder,
  _PurchaseOrderItem,
  _DeliveryDocument,
  _DeliveryDocumentItem,
  _MfgOrder,
  _MfgOrderItem,
  _Supplier,
  _Customer,
  _SupplierCompanyByPlant,
  _CustomerCompanyByPlant,
  _Currency,
  _MaterialBaseUnit,
  _StockChangeCategory
}
```