

Overview

The purpose of this document is to provide additional guidance as to how to set up and maintain hierarchies. The key steps are:

- Please find more detailed information about these steps below.

Hierarchies are created and maintained using the 'Manage Global Hierarchies' app, the standard SAP help for which can be found [here](#).

Before a hierarchy can be built a hierarchy type is needed. The hierarchy type defines the dimension (also known as characteristic and business entity) or combination of dimensions that can be included in the hierarchy. Multiple hierarchies can be built on each 'hierarchy type'.

The screenshot displays the SAP 'Manage Global Hierarchies - Standard' interface. On the left, a list of existing hierarchies is shown, including 'BMM4, Sympago Supplier Hierarchy' and 'CIT5, Financial Statement Version'. The main area on the right contains a table with columns for 'Hierarchy ID', 'Status', and 'Valid From/To'. A dropdown menu is open for selecting a hierarchy type, listing options such as 'Activity Type Hierarchy', 'Bank Account Group', 'Budget Account Hierarchy', 'Budget Period Hierarchy', 'Business Transaction Type Hierarchy', 'Commodity Item Hierarchy', 'Company', 'Company Code Hierarchy', 'Consolidation Document Type', 'Consolidation Financial Statement Item', 'Consolidation Funding Level', 'Consolidation Reporting Item', 'Consolidation Subitem', 'Consolidation Unit', 'Corporate Income Tax Hierarchy', 'Cost Center Hierarchy', 'Customer Hierarchy - Analytics', and 'Customer Hierarchy - Sales'.

There are a number of standard hierarchy types with standard hierarchies. These are automatically included in reports. This is achieved via a link between the hierarchy in the app and its inclusion in CDS dimension views e.g. I_PRODUCT

Custom hierarchies can be created on standard hierarchy types and they will also automatically be available for reporting.

Hierarchies may be required for dimensions, or combinations of dimensions, for which there is no existing hierarchy type. Custom hierarchy types must be defined to support these hierarchies. Eg vendor/supplier.

Non-standard hierarchy types will require custom development and therefore a request Jira will need to be created.

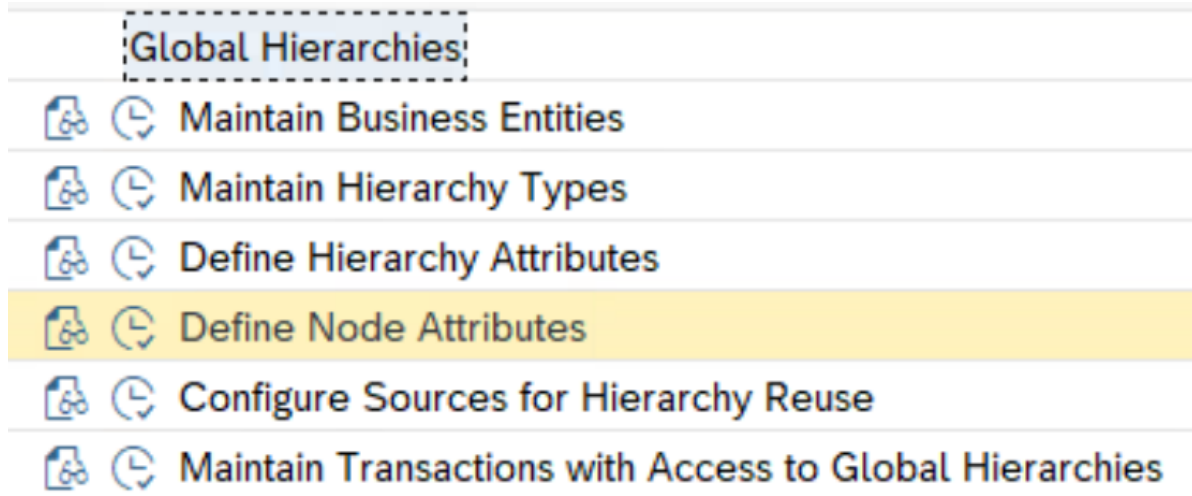
These can be created through the 'Manage Global Hierarchies' app. However, these non standard hierarchies will only be available in reports e.g. Custom Analytical Queries or Std CDS views after completing these steps:

- Configuration of Business Entities: Global Hierarchies
 - Configure Hierarchy Types
- Creation of the necessary cds views
 - Hierarchy specific views for the Hierarchy, Nodes and texts.
 - CDS view for a custom dimension e.g. zsupplier
 - Extending reporting cds views with the custom dimension.
 - These custom field extensions must be performed at the correct base level so that they are included in the datasphere extraction
- Creating the Global Hierarchy using the Maintain Global Hierarchies app.
 - Activated hierarchies will appear in tables hrrp_node and hrrp_directory

More complex needs

If a hierarchy needs to have levels that are other dimensions, this can be accommodated via configuration (transaction UHIMG).

E.g. a product hierarchy that is based on both material type and material group, or customer hierarchy based on sales org, distr channel, division



Additional reading

[SAP Manage Global Hierarchies Help](#)

[2922493 - Extensibility with Hierarchies](#)

[ExtendGlobalHierarchiesWithCustomHierarchy.pdf](#)

Note that there is a where clause not explained in the document to avoid reading the not assigned node.

Sample Code

Example of code to be used in CDS views for custom hierarchy types. N.B. the standard documentation does NOT include the last where clause which is essential for the code to function.

```

define view Z_SUPPLIER_HIERARCHY_NODE
as select from hrpp_node
inner join Z_SUPPLIER_HIERARCHY as Header on Header.SupplierHierarchy = hrpp_node.hryid
and Header.ValidityEndDate = hrpp_node.hryvalto
association [0..*] to Z_SUPPLIER_HIERARCHY_NODE_T as _Text
on $projection.SupplierHierarchy = _Text.SupplierHierarchy
and $projection.HierarchyNode = _Text.HierarchyNode
association [0..1] to Z_SUPPLIER as _Supplier
on $projection.Supplier = _Supplier.Supplier
association [1..1] to Z_SUPPLIER_HIERARCHY as _Hierarchy
on $projection.SupplierHierarchy = _Hierarchy.SupplierHierarchy
and $projection.ValidityEndDate = _Hierarchy.ValidityEndDate
{
  @Consumption.filter: { mandatory: true, selectionType: #SINGLE, multipleSelections: false }
  @ObjectModel.foreignKey.association: '_Hierarchy'
  key hrpp_node.hryid as SupplierHierarchy,
  @ObjectModel.text.association: '_Text'
  key hrpp_node.hrynode as HierarchyNode,
  @Consumption.filter: { mandatory: true, selectionType: #SINGLE, multipleSelections: false }
  @Semantics.businessDate.to: true
  key cast( hrpp_node.hryvalto as fis_dattb ) as ValidityEndDate,
  @Semantics.businessDate.from: true
  cast( hrpp_node.hryvalfrom as fis_dattb ) as ValidityStartDate,
  hrpp_node.parnode as ParentNode,
  hrpp_node.hryver as HierarchyVersion,
  concat( hrpp_node.hryseqnbr, hrpp_node.hrynode ) as SequenceNumber,
  hrpp_node.hrylevel as HierarchyNodeLevel,
  hrpp_node.nodetype as NodeType,
  @ObjectModel.foreignKey.association: '_Supplier'
  cast(
    case hrpp_node.nodetype
    when 'L' then hrpp_node.nodevalue
    else ''
    end as t1fmr ) as Supplier,
  _Text,
  _Supplier,
  _Hierarchy
}
where
nodetype <> 'D';

```

```

define view Z_SUPPLIER
as select from I_Supplier as isupplier

association [0..*] to Z_SUPPLIER_HIERARCHY_NODE as _SupplierHierarchyNode
on $projection.Supplier = _SupplierHierarchyNode.Supplier

{
  @ObjectModel.text.element: 'SupplierFullName'
  @ObjectModel.hierarchy.association: '_SupplierHierarchyNode'
  key isupplier.Supplier as Supplier,

  isupplier.SupplierAccountGroup,
  isupplier.SupplierFullName,

  _SupplierHierarchyNode
}

```