SAP HR Organizational Charting Interface (HR-OCI) Version 1.0

Customer Configuration Guide

Configuration Guide for the SAP HR Organizational Charting Interface (HR-OCI)

Purpose

The mySAP ERP HCM Organizational Charting Interface (HR-OCI) is an interface to the SAP system for external *organizational charting applications*. This document describes in detail the configuration steps required to display Organizational Management data through a third party *organizational charting application* via the HR-OCI.

Intended Audience

This document is intended for use by customers who wish to use a **third-party** *organizational charting application* to display Organization Management data through the **Manager Self Service Business Package**. The HR-OCI is offered to display org charts within the SAP MSS solution. In principle, the HR-OCI is an interface related to SAP Organizational Management.

System Requirements

In order to use the SAP HR-OCI, you must meet the following requirements:

- You must be using SAP HR Organizational Management on SAP R/3 Release **4.6C** or higher;
- In addition to the correct SAP release, you must be using the R/3 Web Plug-In Release **2004.1**; (If you are using ERP2005, you do not need to use the plug-in.)
- You must be running the Business Package for Manager Self Service, BP **50.4** or higher on the SAP Enterprise Portal using JDK version **1.3.1** or higher.

Glossary

SAP Enterprise Portal

The SAP Enterprise Portal is the SAP product offering that allows an enterprise to unify information, applications, and services on a browser-based interface. The SAP Enterprise Portal consists of a portal platform, a content management platform, and a business intelligence platform.

Business Package

A business package is a set of pre-assembled content for completing a business task. Business packages provide out-of-the-box portal applications that can be easily modified to suit a customer's needs.

Business Package for Manager Self Service (MSS)

The Business Package for Manager Self Service (MSS) is a product offering for the SAP Enterprise Portal. MSS is designed for employees who perform management tasks at the operational level. It serves as a single point of access to data and information that helps managers to make the right decisions at the right time.

The MSS business package is comprised of the components *My Budget* and *My Staff*. *My Budget* supports managers in fulfilling their cost and budgeting responsibilities. *My Staff* supports managers in their administrative and planning tasks in Human Capital Management (HCM).

iView

An iView is a program that retrieves data from content sources in a company and on the Internet, and displays it in the Enterprise Portal content area.

Object and Data Provider (OADP)

The Object and Data Provider (OADP) is a utility offered in the MSS Business Package. For more details, please see the Configuration Guide for OADP in Documentation section of the SAP Service Marketplace *(Manager Self Service → Documentation → Technical Documentation → Configuration Guides → Configuration Guides 50.3 – My Staff).*

One part of the OADP customizing is used to define the *evaluation path*, which specifies the relationship paths to retrieve the required objects. In addition, the OADP tool is used to define the *depth*, which specifies the numbers of depth levels downward to retrieve the required objects.

View ID

The View ID technically defines which objects, attributes, and hierarchical information of the organizational structure are extracted from the backend SAP system. The OADP tool is used to configure the individual View ID.

Focused object

A focused object is an organizational object (e.g. organizational unit, position, job, or person) that is placed at the top of the organizational chart displayed by the vendor's application.

Integration Scenarios

The HR-OCI is designed to work in the following three scenarios within MSS. You may choose to integrate one or more of the following scenarios. SAP will certify o*rganizational charting applications* on a scenario-to-scenario basis.

Figure 1: Scenario 1 On-line data extraction – via vendor

Scenario 1: On-line data extraction: via vendor

A manager — utilizing Manager Self Service (MSS) in the SAP Enterprise Portal — selects an organizational chart display link in the browser, which launches the external *organizational charting application*. The third party application connects to the SAP HR-OCI through a remote-enabled function module in the SAP system (HR + Web Plug-In) and extracts organizational data, such as organizational units, positions, and employee data. Using this data, the third party application builds an organizational chart and displays it in a graphic presentation.
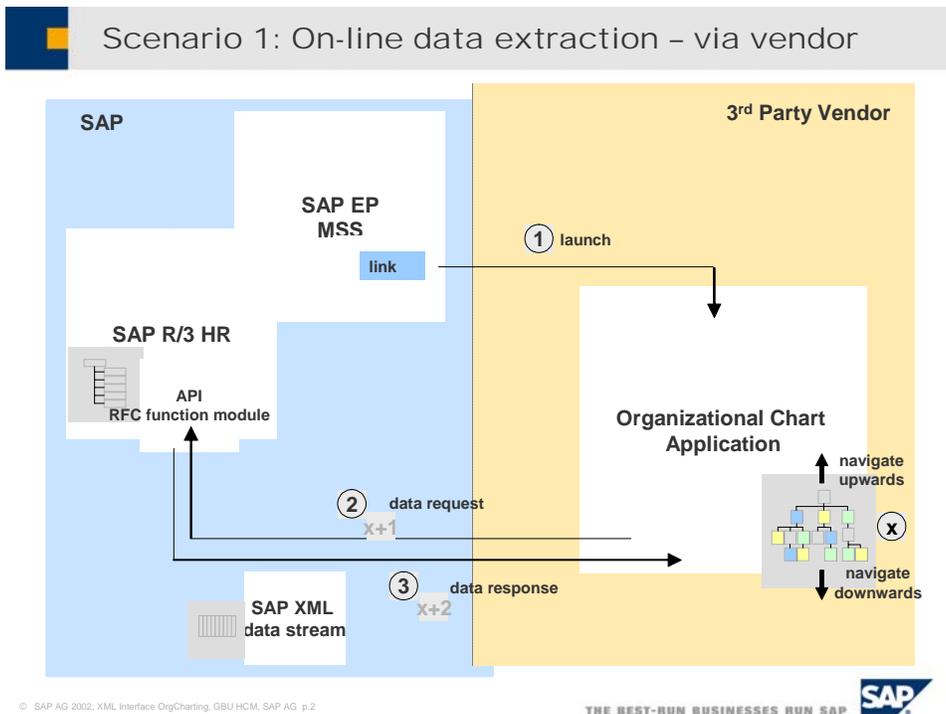
Figure 2: Scenario 2 Off-line data extraction – via vendor

Scenario 2: Off-line data extraction – via vendor

A manager – utilizing Manager Self Service (MSS) in the SAP Enterprise Portal – selects an organizational chart display link in the browser, which launches the external *organizational charting application.* The third party *organizational charting application* extracts the entire organizational charting data from the SAP backend system using the HR-OCI interface.

The application publishes the entire chart as a web resource for the customer. Having a web resource available as a link in Manager Self Service, a user can launch the published organizational chart.
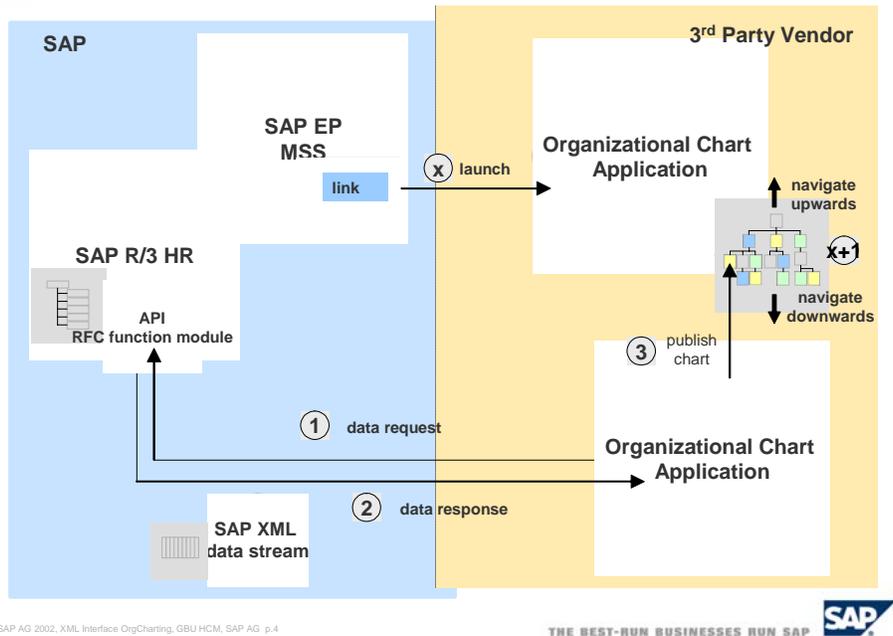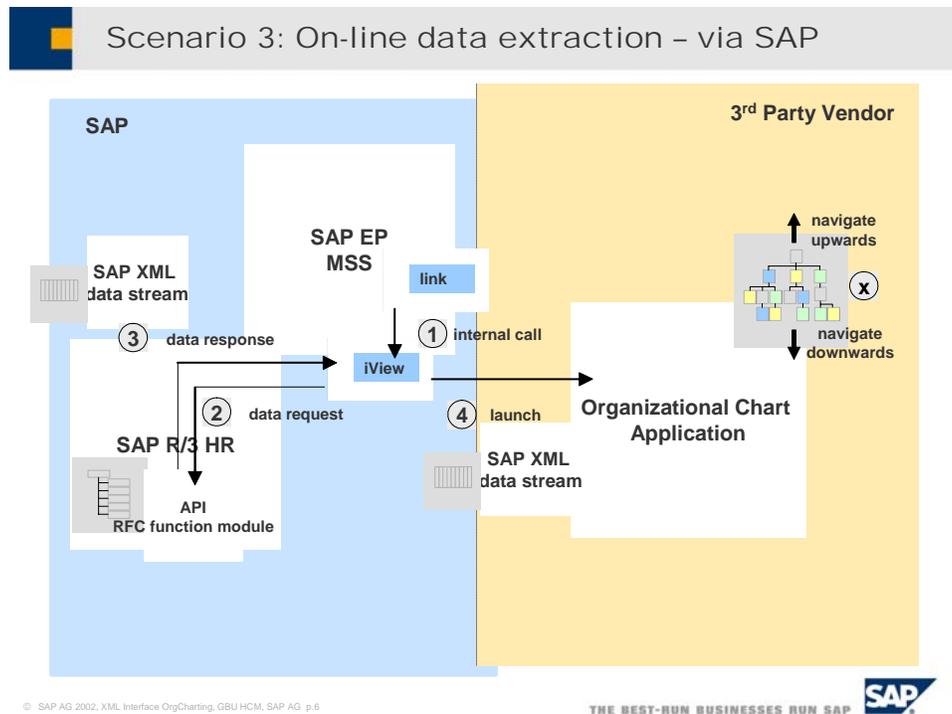
Figure 3: Scenario 3 On-line data extraction – via SAP

Scenario 3: On-line data extraction – via SAP

A manager – utilizing Manager Self Services (MSS) in the SAP Enterprise Portal – selects an organizational chart display link in the browser, which will initiate data extraction from the SAP system. The extracted data is then passed to the third party *organizational charting application* as an XML document.

Note that in each integration scenario, the *organizational charting application* is launched from the SAP Enterprise Portal. The external *organizational charting application* will be launched with a set of URL parameters described below. In each of the above scenarios, it is necessary that the *organizational charting application* is able to receive a URL request, i.e. be web-enabled.

Configuration Steps

You must perform several configuration steps in order to use the HR-OCI. The main steps are:

1. You must set up the connection between the external *organizational charting application* and the SAP system (for Integration Scenarios 1 and 2);
2. You must perform the necessary configuration for the remote function module **HCM_GET_ORGSTRUCTURE_AS_XML**. This configuration involves customizing the Object and Data Provider (OADP) utility and any necessary SAP Queries.
3. If you are using the provided SAP test iView, you need to configure the Java properties of the iView within the SAP Enterprise Portal.

Overview of functionality

The function module **HCM_GET_ORGSTRUCTURE_AS_XML** has been developed as an external interface to the SAP system. It can be used to access the SAP system to retrieve the Organizational Management information and return the data as an XML document.

In the SAP Organizational Management system, the basic components that form the data are called **objects**. Organizational units, positions, persons, tasks, and jobs are different types of objects in Organizational Management. The HR-OCI reads information on various types of objects within Organizational Management and returns the retrieved data in an XML document. The XML document conforms to the SAP HR XML Organizational Charting Schema.

Connection between External Organizational Charting Application and the SAP system

As described in Integration Scenarios 1 and 2 above, the external *organizational charting application* calls the SAP system through the HR-OCI. The interface retrieves the requested Organizational Management data and returns the data to the *organizational charting application* as an XML document.

In order to do this, you must establish a connection between the external *organizational charting application* and the backend SAP system.

For information on the configuration of the connection between the external *organizational charting application* and the SAP system, please refer to:

- Maintaining Remote Destinations:
  From the SAP Easy Access menu, choose *Tools → Administration → Administration → Network → RFC Destinations (SM59)*.
  In the SAP Library, go to: *Technical Operations Manual for mySAP Technology → Administration of the SAP Web Application Server → Management of the ABAP Subsystem → Management of ABAP-Technology → ALE Introduction and Administration → Setting Up the Communication → Maintaining Remote Destinations*.

- RFC Programming in ABAP' documentation in the SAP Library.

Function module configuration

The HR-OCI uses the remote-enable function module **HCM_GET_ORGSTRUCTURE_AS_XML** to extract the hierarchical data from Organizational Management.

1. First, the function module **HRWPC_RFC_GET_OBJECTS_INTERNAL** extracts Organizational Management objects and relationships that are specified through the configuration of the Object and Data Provider (OADP) utility.
2. Next, the function module **HRWPC_RFC_GET_COL_CONTENT** pulls additional data on the extracted objects from the customer-defined column framework specified within the OADP configuration.
3. Optionally, SAP Queries can be used to extract additional data that are not specified through the OADP column framework.

To understand the configuration steps for the function module, you need to examine the importing and exporting parameters

Importing parameters

Field	Data type	Required	Default value	Meaning
I_VIEWID	CHAR(6)	Yes	–	View or view ID
I_ORGSCENARIO	CHAR(4)	No	–	Query scenario
I_OTYPE	CHAR(2)	No	US	Object type
I_OBJID	CHAR(45)	No	SY-UNAME	Object ID
I_PLANVARIANT	CHAR(2)	No	–	Plan Version
I_BEGINDATE	DATS(8)	No	SY-DATUM	Begin Date
I_ENDDATE	DATS(8)	No	SY-DATUM	End Date
I_KEYDATE	DATS(8)	No	SY-DATUM	Key date

Description of importing parameters:

Object type and object ID: The object type and object ID specify an Organizational Management object for which you want to display a relevant organizational chart. For example, the function module's default values for the object type and object ID are a user ('US') and the SAP username, respectively. The function module could use this to return organizational charting data for an organization structure that includes the user.

View ID: The view ID determines the Organizational Management objects that are returned by the function module. Through the use of evaluation paths, the root and subordinate objects for the object that is referenced by the object type and object ID are extracted. Additional information on the root and subordinate objects are extracted through the use of the OADP column functionality. This additional data could include the name of an organizational unit, the title of a position, or the telephone number of a person. The additional data is returned in the output stream and could be used by the external *organizational charting application* to display additional information in the organizational chart.

Query scenario: The optional query scenario parameter specifies a set of SAP queries that can be used to read additional data on the Organizational Management objects that are specified through the evaluation paths in the view ID. The data read by the SAP queries supplements the additional information that is read from the OADP column framework. The output of the function module does not distinguish between the additional data read using the OADP functionality and the data read using the query scenario.

Plan Variant: You can configure one or more organizational plans within the SAP Organization Management system. The plan variant parameter is used to specify the active plan version. If no value is passed, the function module determines the plan variant value from table **T77S0**. The active plan version is read from the client-specified entry where **GRPID = PLOGI** and **SEMID = WORKF** in **T77S0**. If that entry does not exist or has a blank value, then the entry in **T77S0** where **GRPID-PLOGI** and **SEMID-PLOGI** is used instead. If no value is passed to the function module, and the both of the above entries are missing or have no value, an error is returned.

For additional information on plan variants in SAP Organizational Management, refer to the topic 'Plan Versions' in the SAP Library under *SAP R/3 Enterprise Application Components → Human Resources → Personnel Management → Organizational Plan Mode → Organizational Management → Organizational Plan → Plan Versions.*.

Begin, end, and key dates: The *begin* and *end* dates specify a time range from which you wish to extract organizational data. The system will use default dates if one or the other is not explicitly specified in the import parameters. If a particular Organization Management object has a relationship to the object specified in the import parameters that falls outside of the date range, then that particular object will not be included in the output of the XML file.

The *key* date is used to specify the single date from which the additional information on the extracted objects will be read. This date must fall in the date range specified by the *begin* and *end* dates.

Exporting parameters

Field	Data type	Meaning
XMLSTRING	XSTRING (XML)	XML structure in UTF-8 conforming to the SAP XML Schema for Organizational Charting
RETURN	BAPIRETURN	Structured field for returning information about an error that occurred in the remote function call

Description of exporting parameters:

The function module outputs an XML file that contains organizational information that can be used by an *organizational charting application* to create an organizational chart. The XML file conforms to the SAP-defined XML schema for the HR-OCI.

The XML schema and details of the semantics of the tags are included in Appendix A.

The BAPIRETURN data type is a structured field with the following structure:

Field	Data type	Meaning
TYPE	CHAR(1)	The message type. The message types are: ■ S: success ■ E: error ■ W: warning ■ I: informational ■ A: abort In the HR OCI v1.0, only the 'E' message type is used.
ID	CHAR(20)	The message class.
NUMBER	CHAR(3)	The message number.
MESSAGE	CHAR(220)	The text of the message.
LOG_NO	CHAR(20)	The log number in the application log.
LOG_MSG_NO	NUMC(6)	The internal message serial number in the application log.
MESSAGE_V1	CHAR(50)	Message variables. The message variables will be used in the creation of the MESSAGE field
MESSAGE_V2	CHAR(50)	
MESSAGE_V3	CHAR(50)	
MESSAGE_V4	CHAR(50)	

If a problem occurs within the interface, an error message will be returned in the RETURN field.

OADP Configuration

The Object and Data Provider (OADP) is a tool in the SAP Web Plug-In System that enables you to extract structures and data that were created and maintained in Organizational Management. In the Business Package for Manager Self Service for the SAP Enterprise Portal, the OADP tool reads the hierarchical Organizational Management data and displays the additional information about this data as the contents of a column within an iView. The columns may be collected together as column groups, which may be assigned to a view.

This following section details the steps needed to configure the OADP for use by the HR-OCI. The customizing steps listed in this document do not cover the entire breadth of the OADP configuration and functionality. For more details about the Object and Data Provider, please refer to the document 'Configuration Guide for the Object and Data Provider', which can be found in the SAP Library under *Business Package for Manager Self-Service 60.1 → Technical Description*.

View Configuration

The particular objects and structures that are extracted from Organizational Management are dictated by the view ID passed into the function module. The view ID (or view) specifies the information that will be extracted by the function module, including the root Organizational Management objects and objects that are subordinate to the root elements. The definition of the

view also specifies the depth of the view, which is the number of organizational levels that should be returned, as well the columns of information about the extracted objects.

SAP delivers a set of views, which can be displayed and modified through the SAP table view **V_TWPC_V** (*View Definition*). For the HR-OCI, SAP delivers the example view IDs **OCIMIN** and **OCIOFO**.

- The **OCIMIN** view ID will produce the objects, relationships, and attributes associated with the defined minimal data set.
- The **OCIOFO** view ID will also produce the data associated with the defined minimal data set. The usage of the **OCIMIN** and **OCIOFO** view IDs is described below.

You can define new views through the SAP table view **V_TWPC_V_C** (*View Definition – Customer*). In addition, you can adjust the SAP delivered views by using the same key (field **VIEWID**) in the customer view as is used in the standard.
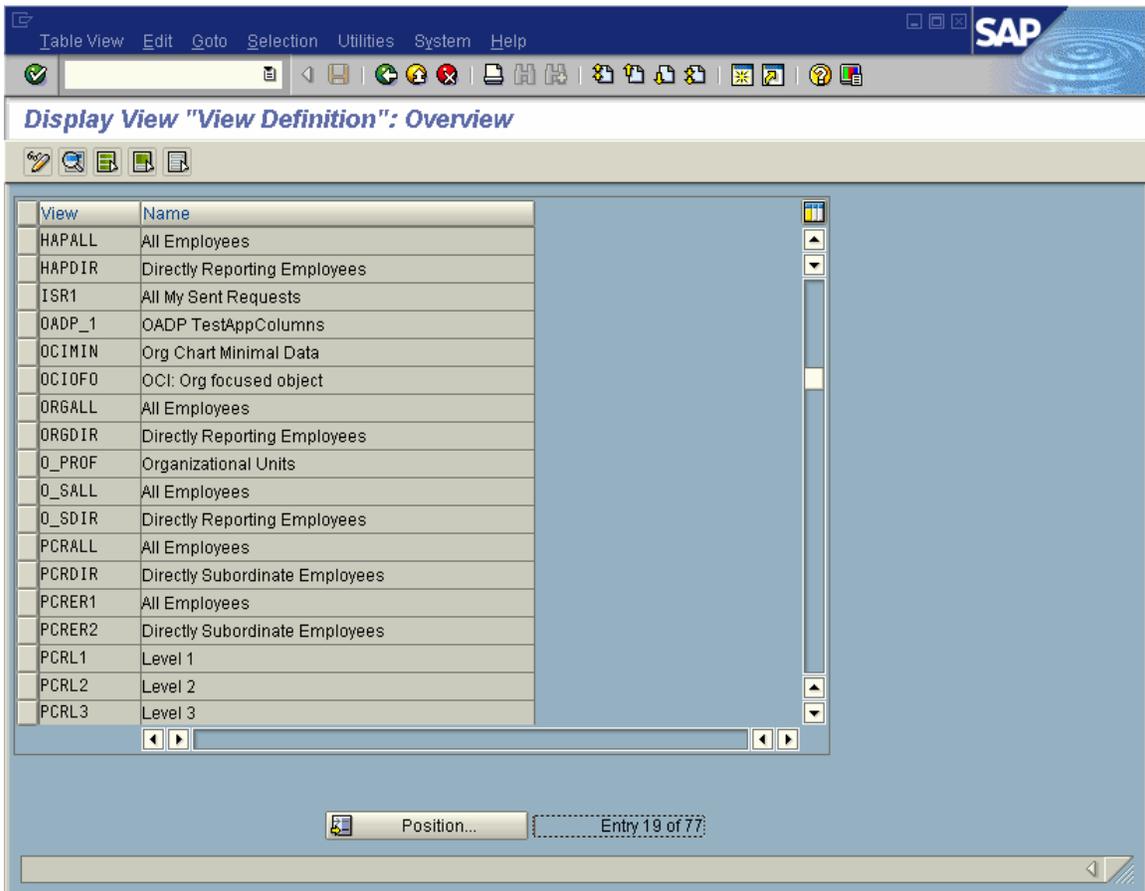

Figure: The SAP view V_TWPC_V.

Each view in **V_TWPC_V** and **V_TWPC_V_C** is defined by several fields and checkboxes in the detail screen. These fields determine the objects and structures returned by the RFC as well as the additional attributes returned on the extracted objects. As an example, the detail screen SAP delivered view **OCIMIN** in **V_TWPC_V** is shown below:
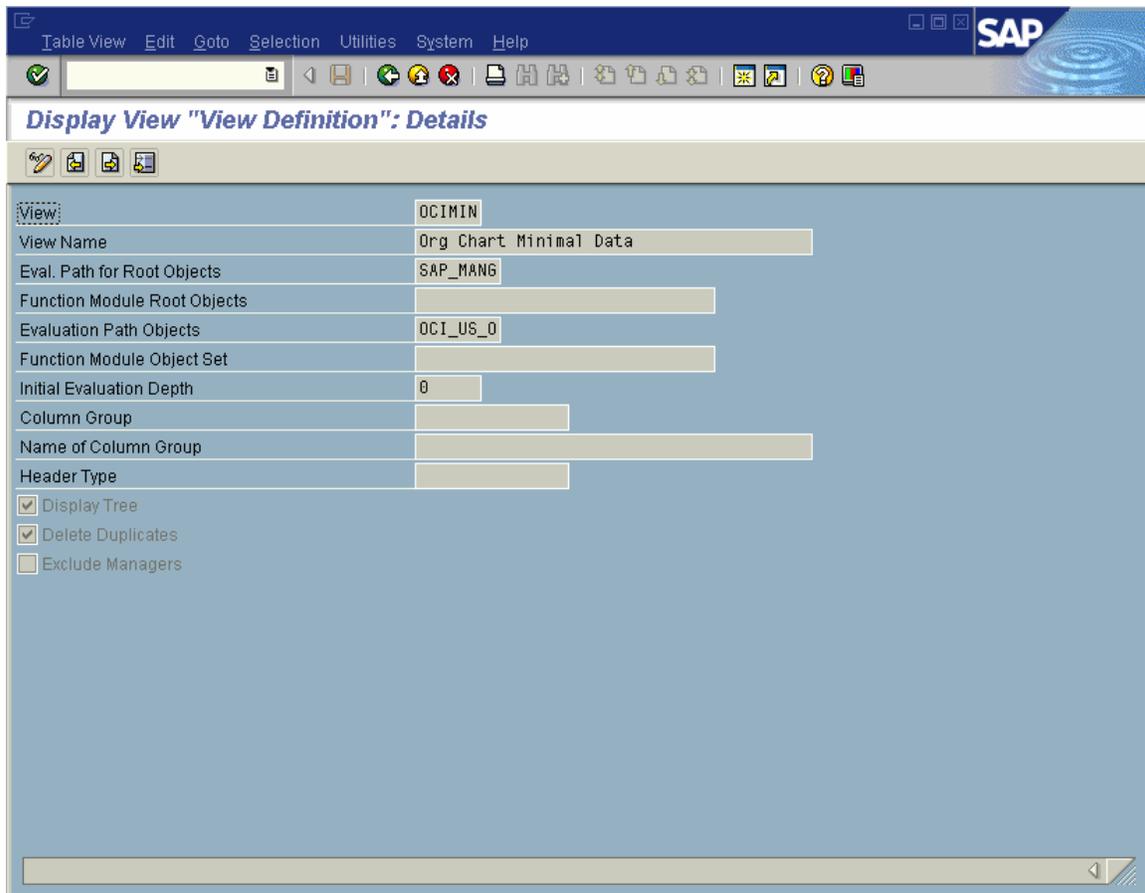
Figure: Detail view of the view ID OCIMIN

Using the object (via the object ID and object type) passed in the importing parameters, the HR-OCI derives the relevant Organization Management elements using the view ID.

- **The root objects**

    In order to display an organizational structure, the system must be able to determine the root objects. Often, a root object is an organizational unit in which the manager holds the chief position.

    The root object may be determined in one of two ways. First, in the *Evaluation Path for Root Objects* field (field **ROOTS_EVPATH**), you can specify an evaluation path. Evaluation paths are defined in the table **T77AW** and are used to determine the root object or objects based on the object type passed into the remote function module **HCM_GET_ORGSTRUCTURE_AS_XML**. For example, if the object type passed into the RFC is the default user ('US') value, the SAP delivered evaluation path SAP_MANG will determine the root objects to be the organizational units in which the user holds the chief position.

    Alternately, in the *Function Module for Root Objects* field (field **ROOTS_FM**), you can specify a function module that returns root objects. As a template, SAP delivers the function module **HRWPC_PATHROOTS** (*Function module to determine root objects*).

- **The evaluation path**

  Once the root objects have been determined, the system must determine the Organizational Management objects that are subordinate to the root objects. As with the determination of the root objects, the evaluation path can be specified in one of two ways.

  First, in the field *Evaluation Path Object Set* (field **EVPATH**) field, you can specify an evaluation path. The evaluation path is used to determine the subordinate Organizational Management objects. For example, the SAP delivered evaluation path SBESX will determine the people who hold positions that are a part of an organizational unit.

  Alternately, in the *Function Module Object Set* (field **OBJECTS_FM**) field, you can specify a function module that returns organizational objects. As a template, SAP delivers the function module **HRWPC_EVAL_PATH**.

  For additional information on evaluation paths within Organizational Management, please refer to the 'Using Evaluation Paths' documentation in the Technical Operations Manual for mySAP Technology in the SAP Library.

- **Define column groups**

  The OADP utility has functionality that allows you to extract and represent an attribute of a set of Organizational Management objects as the contents of a column of data.

  In the context of the HR-OCI, the OADP column framework is used to read and store additional attributes about the Organizational Management objects that will be displayed in the organizational chart. For example, if the Organizational Management objects are employees from a particular organizational unit, the employees' names could be stored as the contents of a column.

  It may be desirable to have a multiple groups of attributes for a set of Organizational Management objects. For example, you may want to display the names, titles, and phone numbers for a set of employees in organizational chart. In this case, you would have three columns of information, one each for the name, title, and phone number. To accomplish this, one or more columns can be grouped together in a column group. In the *Column Group* (**ARRAYTYPE**) field of the view, you can specify the column group you want to display in the view. Column groups are defined in the SAP table view **V_TWPC_ARRAYTP** (*Definition of Column Groups*).

  For details, refer to the section on [Column and Column Group configuration](#).

- **Depth**

  The depth specifies the number of organizational levels that should be displayed within the view. For example, if the depth is set to '1', then only the top level object(s) will be extracted. If the depth level is set to '2', then the root objects and the first level of subordinate objects will be retrieved. If the depth is set to '0' (zero), then all organization levels are returned.

- **Overwrite column headers**

  In the *Header Type* (**COLHEADTYP**) field, you can specify an override to the headers to the columns assigned to the specified Column Group. Using this override, you can specify column headers that depend on the context or on the object type displayed. For more information, refer to the section on Column Headers in the OADP documentation.

In addition to these fields, there are three checkbox in each view definition:

- **Display Structure As Tree**

  In the OADP tool, the 'Display Structure As Tree' checkbox controls if the extract list of Organizational Management objects are filtered through by certain table entries. For the HR-OCI, this checkbox must be selected.

- **Delete Duplicates**

  If the 'Delete Duplicates' box is checked, then each object only appears once in the list of returned objects. For the HR-OCI, SAP recommends setting this flag.

- **Exclude Managers**

  If the 'Exclude Managers' box is checked, then the SAP user and the employee assigned to that user (through the *Communication* infotype (0105)) are deleted from the list of objects. In addition, all users/people who are assigned to a chief position shared by the current SAP user (or assigned person) are also deleted from the list of returned objects.

SAP delivers the view IDs **OCIMIN** and **OCIOFO** as examples of view IDs that can be used with the HR-OCI.

The view ID **OCIMIN** can be used if a user object type ('US') and SAP system user object ID is passed to the OCI. This view ID uses the **SAP_MANG** evaluation path to retrieve the organizational units that are headed by the manager. It uses the **OCI_US_O** evaluation path to extract the organizational units, positions, and persons subordinate to the root organizational units headed by the manager, as well as to indicate the chief positions of the subordinate organizational units.

The view ID **OCIOFO** can be used if an organizational unit is passed to the OCI (using the 'O' object type). This view ID uses the function module **HRWPC_OCI_ORG_FOCUSED_OBJECT** to set the specified organization unit as the root organizational object. It also uses the **OCI_US_O** evaluation path to extract the subordinate objects. The **OCIOFO** view ID could be used to extract the organization structure under a specific organizational unit.

Column and Column Group Configuration

As mentioned above, the OADP tool allows you to read additional attributes about Organizational Management objects and store this information in the form of columns.

SAP delivers a set of pre-defined columns that can be displayed through the SAP table view **V_TWPC_COL** (*Column Definition*). This table view contains a customer namespace. The customer-specific entries must begin with the letter **Y** or **Z**.
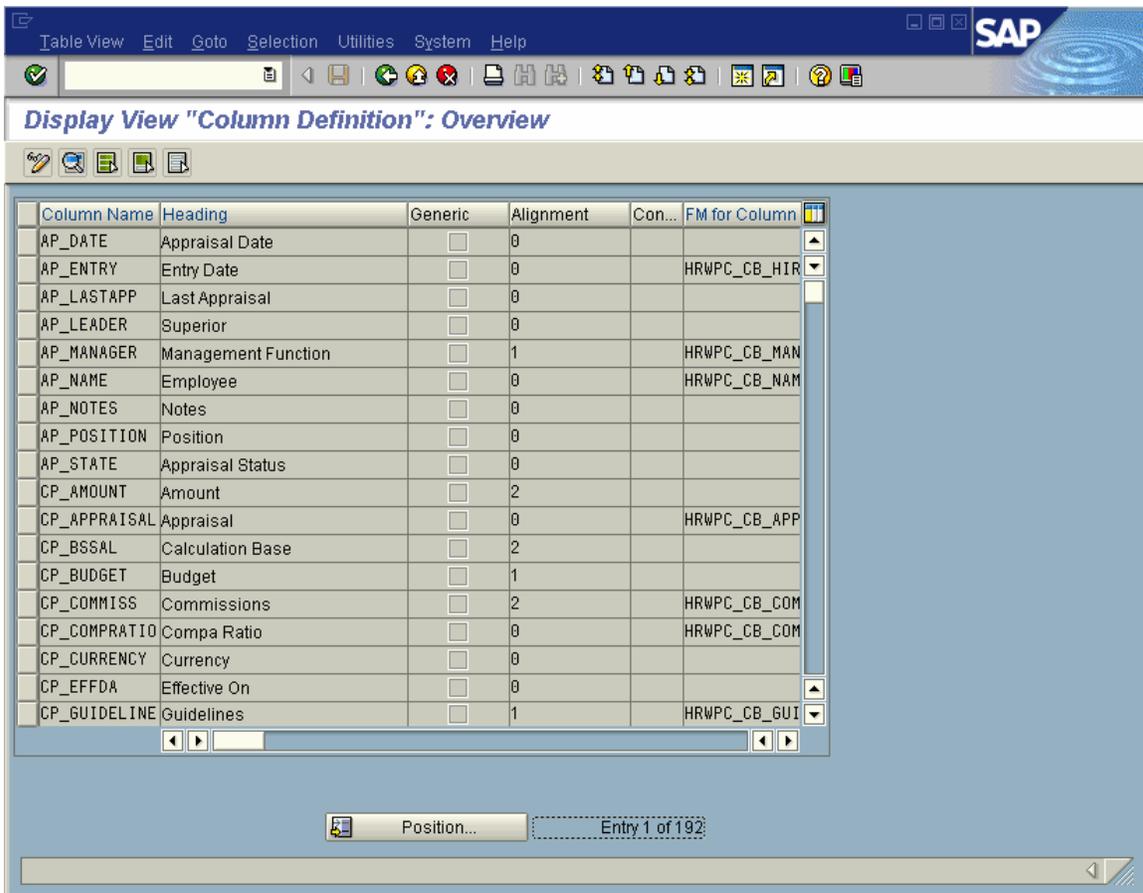
Figure: The SAP view V_TWPC_COL

For each column defined in **V_TWPC_COL**, you can specify how the column contents will be derived in one of two ways. A column may be filled from SAP using a function module or through a calling iView. This is defined in the detail screen of a column in **V_TWPC_COL**. For example, below you can see the detail of the SAP delivered column **ORG_STEXT_JS**.
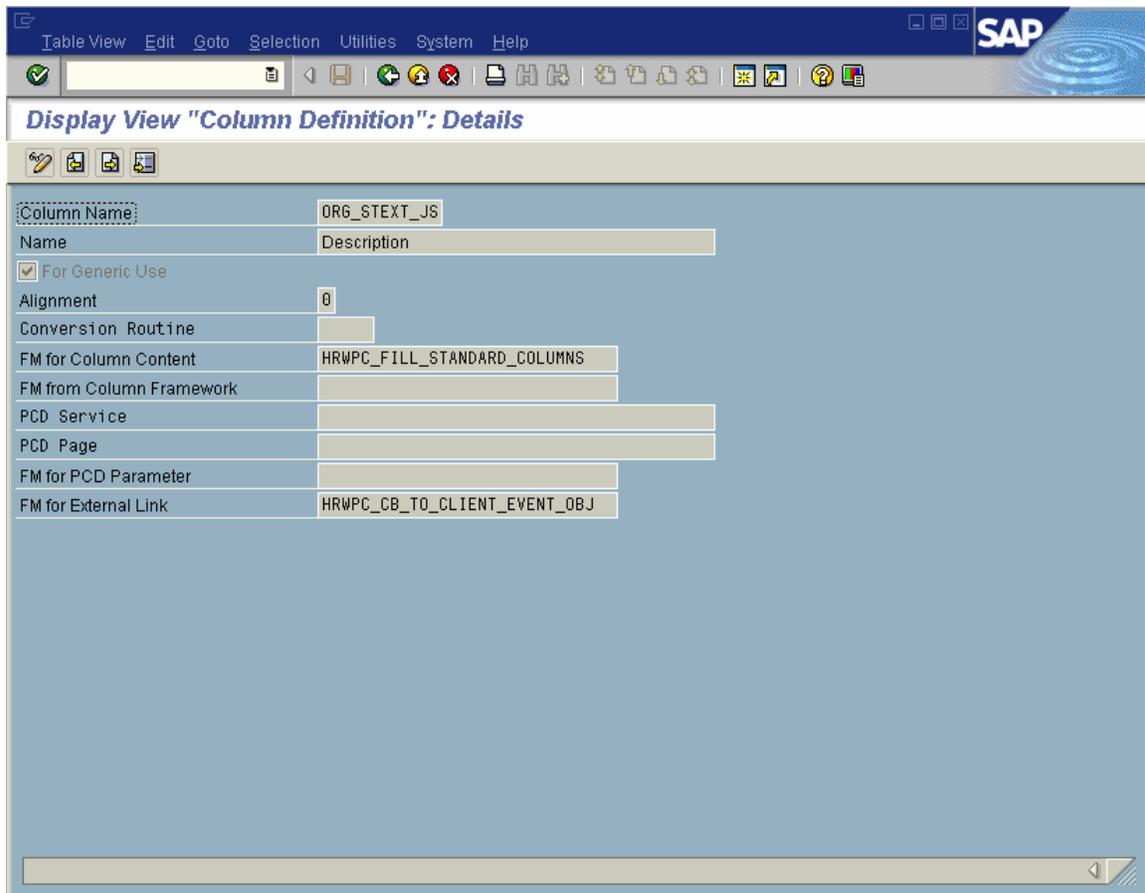
Figure: The detail screen of the column ORG_STEXT_JS in V_TWPC_COL

Filling column content using SAP function module

In the field *FM for Column Content* (**CB_CONTENT**), you can specify an SAP function module that fetches the additional information associated to the Organizational Management objects. In the example above, the contents of the column **ORG_STEXT_JS** are populated from the function module **HRWPC_FILL_STANDARD_COLUMNS**.

[Note: If you have previously implemented the *Column Framework of Organizational Management* in *Manager's Desktop* and want to continue using it in Manager Self Service, you can use the conversion report **PWPC_TO_CONVERT_TABLES** to integrate entries from the *Column Framework* tables with the OADP tables.]

Once you have defined the columns in **V_TWPC_COL**, they may be collected into column groups. In order to form column groups, you first need to define the name of the column group in the SAP view **V_TWPC_ARRAYTP** (*Definition of Column Groups*).
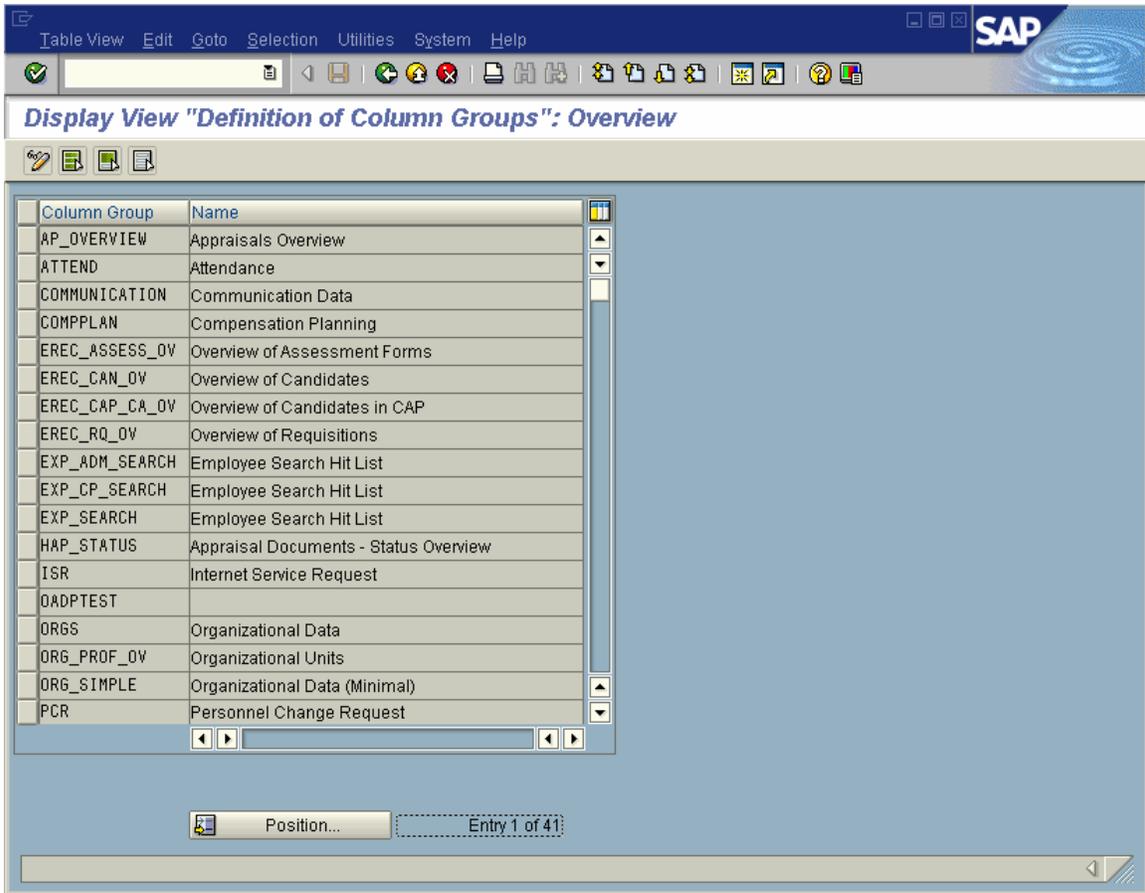
Figure: The SAP view V_TWPC_ARRAYTP

As with the SAP view **V_TWPC_COL**, the view **V_TWPC_ARRAYTP** has the customer namespace starting with the letter **Y** or **Z**.

Once a column group has been defined in **V_TWPC_ARRAYTP**, one or more columns can be assigned to the column group. You can assign a column to a column group through the SAP view **V_TWPC_ACOL** (*Put Columns Together in a Column Group*).
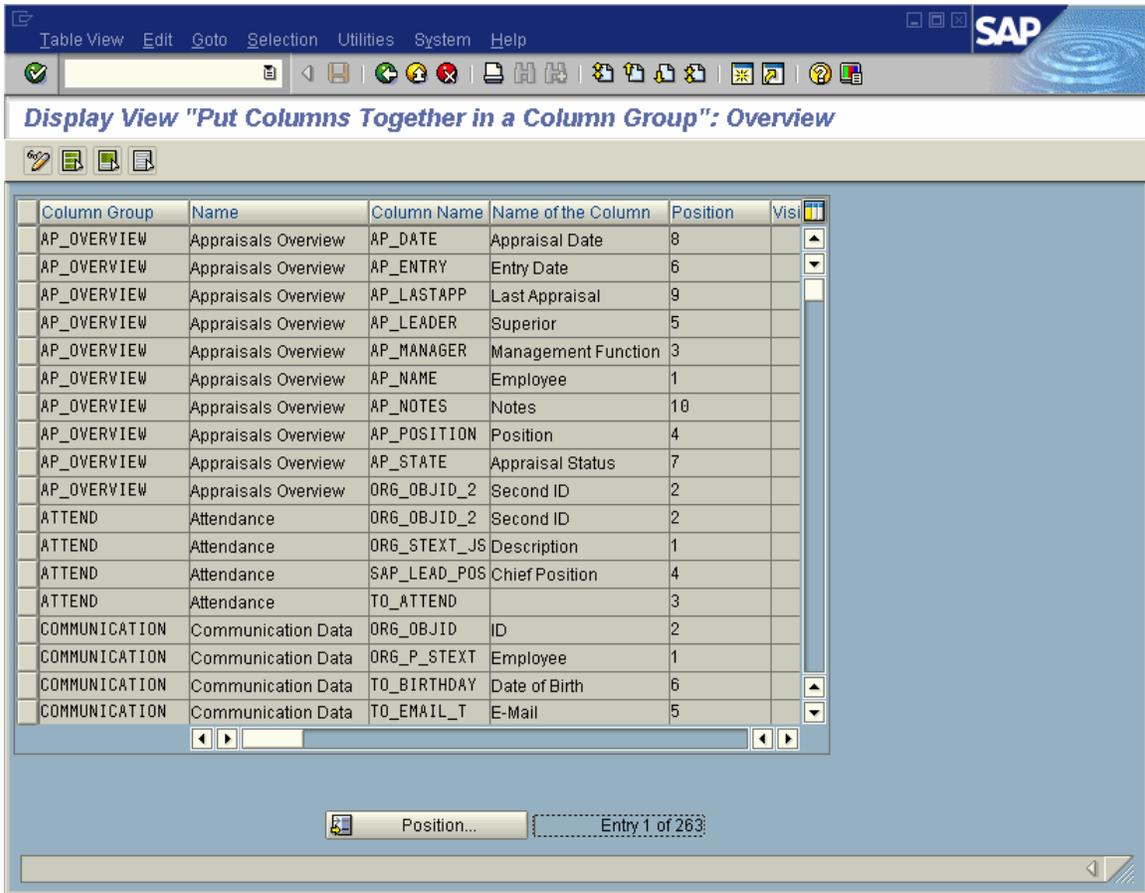
Figure: The SAP view V_TWPC_ACOL

A given column group can have one or several columns assigned to it. Any particular column defined in **V_TWPC_COL** may be assigned to multiple column groups.

SAP Query Configuration

As outlined in the previous section, the HR-OCI can read additional data of the objects extracted from Organizational Management using the OADP column framework. The additional data comprises attributes of the objects, such as the name of an organizational unit, the title of a position, or the phone number of an employee.

In addition to the OADP tool, you can use the SAP Query functionality to read additional information on the Organizational Management objects. You can define a query scenario, which calls one or more SAP queries to read additional information on the extracted objects.

SAP delivers the query scenario **OCIM** via the system table **T77SCENQY_SYST**. You can define your own query scenarios through the SAP customer view **T77SCENQY** (Queries per scenario and object type (customer)).

Figure: The SAP view T77SCENQY

To each query scenario, you can assign one or more SAP queries. For each query in a scenario, you need to assign an object type and a user group. The object type specifies the types of objects that will be queried by the specified query. For example, you can specify an organizational unit ('O'), a position ('S'), or a person ('P'). The user group specifies a group of end users who can execute the query.

There are three SAP queries assigned to the delivered **OCIM** query scenario: **OCI_ORG_DATA** (for organizational units), **OCI_PERS_DATA** (for persons), and **OCI_POS_DATA** (for positions). These three global queries are in the **/SAPQUERY/HO** user group.

Important note: The queries that you associate with a query scenario must be in the global (client-independent) area. Queries that are part of the standard area (i.e. client dependent) will be ignored.

For additional information on SAP Queries in Human Resources, please refer to the 'SAP Query' page in the SAP Library.

Orgchart Viewer iView configuration

The Orgchart Viewer is an iView provided with the Manager Self-Service Business Package for Enterprise portal, which enables line managers to launch an *organizational charting application*.

The iView provides a list of a links, from which a user can launch an *organizational charting application*. In order for the iView to function properly, the iView properties need to be configured based on your requirements. The iView properties are used to specify values for the launching parameters, which are used to launch the *organizational charting application*.

iView Properties

Description (GUI)	Property	Required	Example Entry	Allowed Entries
Logical system	SystemIdentifier	Yes	SAP_R3_HumanResources	
Logger Name	Logger	Yes	com.sap.pct.hcm.manager	
Integration Scenario	integscenario	No	3 (default value)	1, 2 or 3
Launching Parameter Set 0 ~ 9: Link text	ParamSet0linktext ~ ParamSet9linktext	No	My organization	
Launching Parameter Set 0 ~ 9: View Id	ParamSet0viewid ~ ParamSet9viewid	Yes, if any other parameter is specified in the same set	OCIMIN	View Id configured in backend SAP system
Launching Parameter Set 0 ~ 9: Query Scenario	ParamSet0queryscenario ~ ParamSet9queryscenario	No	OCIM	Query Scenario configured in backend SAP system
Launching Parameter Set 0 ~ 9: Object Type	ParamSet0objecttype ~ ParamSet9objecttype	No	O	Object type from backend SAP system
Launching Parameter Set 0 ~ 9: Object Id	ParamSet0objectid ~ ParamSet9objectid	No	12345678	Object ID from backend SAP system
Org chart application: URL	VendorAppBaseURL	No	http://myvendor:8080/orgchart	Valid URL
Org chart application: Data Source name	VendorAppDataSource	No	myVendorApp	

XML Tester iView switch	xmltesterswitch	No	ON (default value)	ON, OFF
XML Tester iView Type	xmltestertype	No	DEFAULT (default value)	

Description of iView parameters

- **Logger:**
  The logger parameter specifies the name of logger to which messages for this component are written.

- **Integration Scenario:**
  This parameter for the *organizational charting application* specifies the integration scenario that used. The values are:

    1. On-line data extraction – via vendor
    2. Off-line data extraction – via vendor
    3. On-line data extraction – via SAP

  If not specified, the default value "3" is set.

- **Launching Parameter Set 0 ~ 9:**
  You specify a set of parameters per a launching link, up to 10 sets. The parameter sets are grouped under the number 0 ~ 9.

    - **Link text**

      This parameter holds the actual text of the link shown in test iView. If no value is specified, the link will appear as:

        No link text is specified in the property - viewid: {*View Id*},

      where **{*View Id*}** is the actual View Id literal.

    - **View Id**

      This parameter specifies the View Id for the launching link. If any other parameter in the set is defined, the View Id must also be defined.

    - **Query Scenario**

      This parameter specifies the query scenario that will be used to determine the additional attributes on the extracted objects. The use of the query scenario is optional.

    - **Object type and Object ID**

      The object type and object ID together specify the Organizational Management object for which the organizational chart is built.

- **Org chart application: URL:**
  This parameter specifies the URL of the *organizational charting application*.

- **Org chart application: Data Source name:**

In this parameter, you can specify the Data Source, with which the portal userid is mapped for the *organizational charting application*. If not specified, the mapped userid and password will be blank.

- **XML Tester iView switch:**
  Using this parameter, you set a switch for use of the SAP provided test iView. If not specified, the default value "ON" is set. If "Org chart application: URL" property is specified, this property is ignored.

- **XML Tester iView Type:**
  This parameter allows you to specify the type of the test iView, when the XML Tester iView switch is set to "ON". If not specified, the default value "DEFAULT" is set. If "Org chart application: URL" is specified, this property is ignored.

Appendix A: SAP XML Schema for Organizational Charting

The SAP XML Schema for Organizational Charting is the following:

```xml
<?xml version="1.0" encoding="UTF-8" ?>
<xsd:schema xmlns="" xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <xsd:element name="OrganizationalStructureQueryResponse"
    type="OrganizationalStructureQueryResponse"/>

  <xsd:complexType name="OrganizationalStructureQueryResponse">
    <xsd:sequence>
      <xsd:element minOccurs="1" maxOccurs="unbounded"
        name="OrganizationalEntity" type="OrganizationalEntity"/>
      <xsd:element minOccurs="0" maxOccurs="unbounded" name="KeyDescription"
        type="KeyDescription"/>
    </xsd:sequence>
  </xsd:complexType>

  <xsd:complexType name="OrganizationalEntity">
    <xsd:sequence>
      <xsd:group ref="DefaultSet"/>
      <xsd:element minOccurs="0" maxOccurs="unbounded" name="Child"
        type="Child"/>
      <xsd:element minOccurs="0" maxOccurs="unbounded" name="AdditionalData"
        type="AdditionalData"/>
    </xsd:sequence>
  </xsd:complexType>

  <xsd:group name="DefaultSet">
    <xsd:sequence>
      <xsd:element name="Type" type="xsd:token"/>
      <xsd:element name="ID" type="xsd:token"/>
      <xsd:element name="Relation" type="xsd:token"/>
      <xsd:element name="RelationBeginDate" type="xsd:date"/>
      <xsd:element name="RelationEndDate" type="xsd:date"/>
      <xsd:element minOccurs="0" maxOccurs="1" name="Name" type="xsd:token"/>
      <xsd:element minOccurs="0" maxOccurs="1" name="BeginDate"
       type="xsd:date"/>
      <xsd:element minOccurs="0" maxOccurs="1" name="EndDate" type="xsd:date"/>
    </xsd:sequence>
  </xsd:group>

  <xsd:complexType name="Child">
    <xsd:sequence>
      <xsd:group ref="DefaultSet"/>
      <xsd:element minOccurs="0" maxOccurs="unbounded" name="Child"
     type="Child"/>
      <xsd:element minOccurs="0" maxOccurs="unbounded" name="AdditionalData"
        type="AdditionalData"/>
    </xsd:sequence>
  </xsd:complexType>

  <xsd:complexType name="AdditionalData">
    <xsd:sequence>
      <xsd:element name="Key" type="xsd:token"/>
      <xsd:element name="Value" type="xsd:token"/>
    </xsd:sequence>
  </xsd:complexType>
```

```
  <xsd:complexType name="KeyDescription">
      <xsd:sequence>
        <xsd:element name="Key" type="xsd:token"/>
        <xsd:element name="Description" type="xsd:token"/>
      </xsd:sequence>
  </xsd:complexType>
</xsd:schema>
```