



SAP Memory Limitations

You may encounter memory limitations on the SAP system when running an OrgPlus Enterprise query for a large organization. This is due not only to the amount of data, but also the memory SAP uses to create its response. SAP returns the response in XML format, the creation of which uses up to ten times as much memory as the response itself.

The size of the query is determined by:

- The number of records (OrgUnits, Positions, and Persons in the system)
- The number of fields of information for each record (names, IDs, personnel area, employee groups, etc.)
- The size of each of these fields (numeric, text, etc)

You can avoid the SAP memory limits by using the OrgPlus Enterprise Multi-Chart Query functionality. This feature allows you to break up one large query into multiple smaller ones that are executed in succession. The results of all the queries are then combined into one large data set.

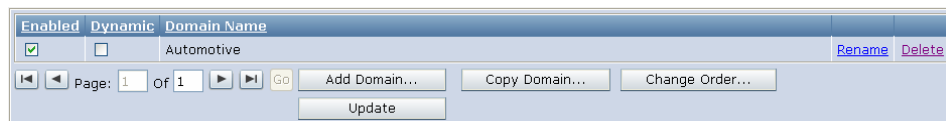
Multi-Chart Query Setup

Step 1 - Organizational Analysis

Run an OrgPlus headcount report of the organization in OrgPlus Enterprise according to the following procedure:

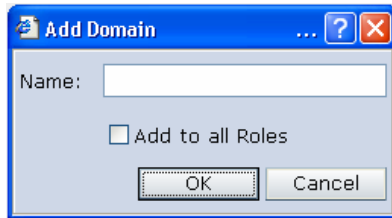
Create a new domain

1. Click the **Admin** tab and select **Domains** in the left panel to display the **Domains** list.



2. Click the **Add Domain...** button.

The *Add Domain* dialog displays.



3. Enter a name for the domain and click **OK** to add your new domain to the **Domains** list.
4. In the left panel, click the + beside the name of your new domain and select **Data Source**.
5. Change the adapter to **SAP HR-OCI**.

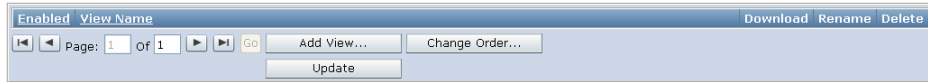
6. Enter **OCIOFO** as the **View ID**.
7. Select **Organizational Unit** as the **Object Type**.
8. Enter the OrgUnit ID of your top Organizational Unit in **Extended Object ID**.
9. Click the **Test Connection** button.

If your connection fails, click the link to view the log and correct the errors.
10. Click the **Retrieve Data** button to load your SAP data into OrgPlus.
11. Click the **Update** button to save your settings.

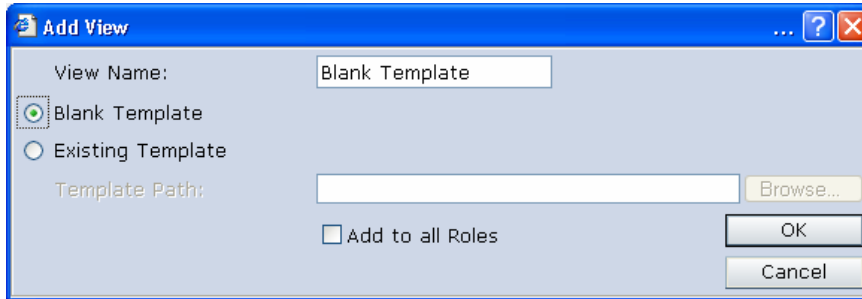
Add a View

1. In the left Admin panel select **Views** from the list within your domain.

The following dialog displays.

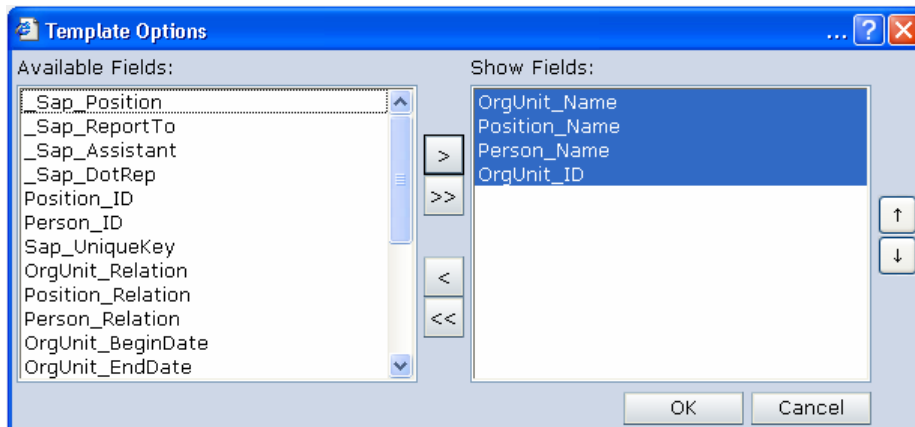


2. Click the **Add View...** button to display the *Add View* dialog box.



3. Select the **Blank Template** radio button.

The *Template Options* dialog displays.




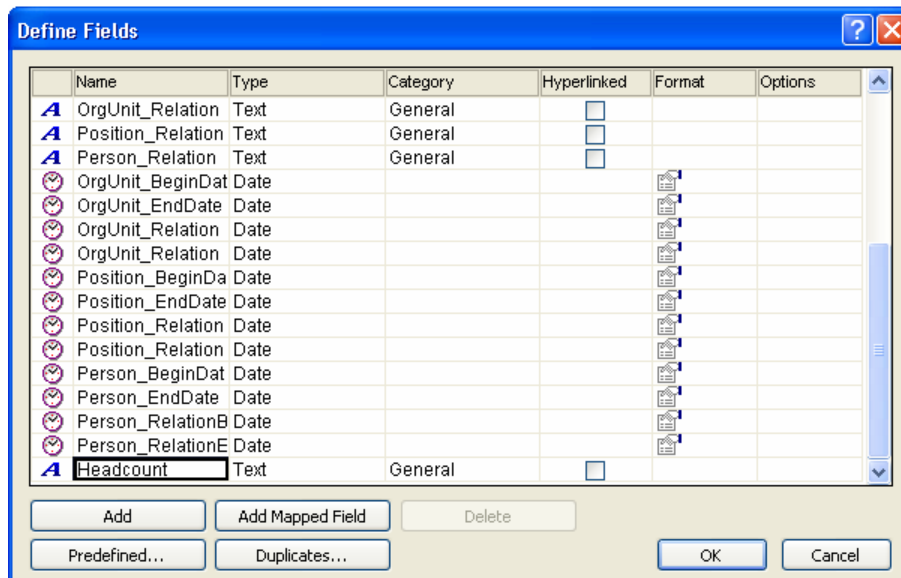
4. In the **Available Fields** list, select **OrgUnit ID**, **OrgUnit_Name**, **Position_Name**, and **Person_Name**, then click **>** to add these fields to the **Show Fields** list.
5. Click **OK** to create the template.



View the chart

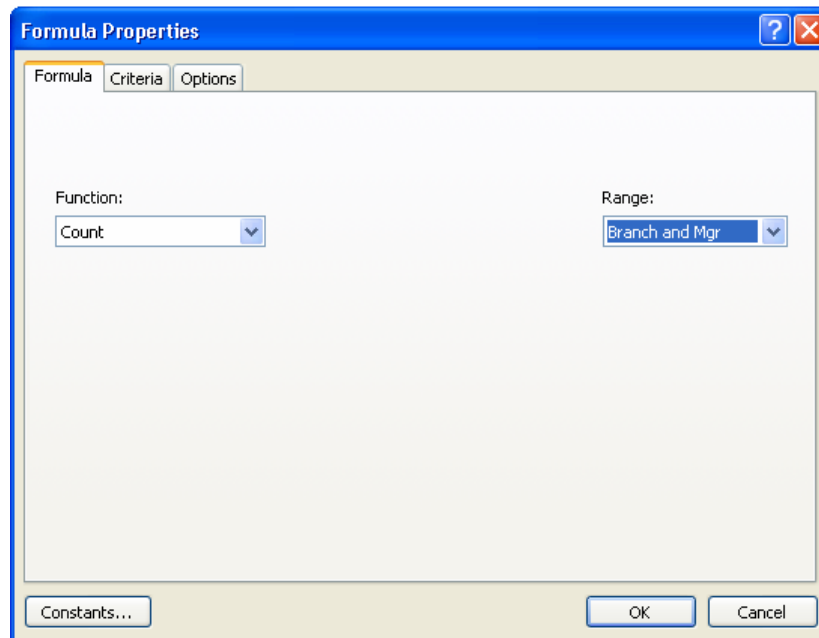
1. In OrgPlus Enterprise, select the **Chart** tab.
2. Choose your domain from the **Domain** menu at the bottom of the window.

3. Change the level control to 4 (or higher, depending on how large the headcount is at the 3rd and 4th levels).
4. Click  to save to OPX.
5. In the dialog that displays, click **OK** to confirm your settings.
6. Click **Open** in the second dialog to view the chart within OrgPlus Desktop and make any needed changes
7. From the **Data** menu in OrgPlus Desktop, select **Define Fields** to display the *Define Fields* dialog.

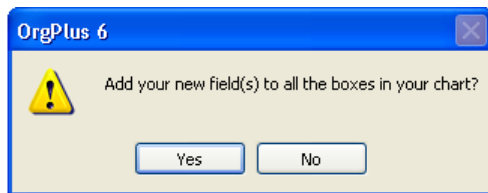


8. Click the **Add** button to add a new field.
9. Enter **Headcount** for the name of the field.
10. Change the **Type** value to **Formula**.

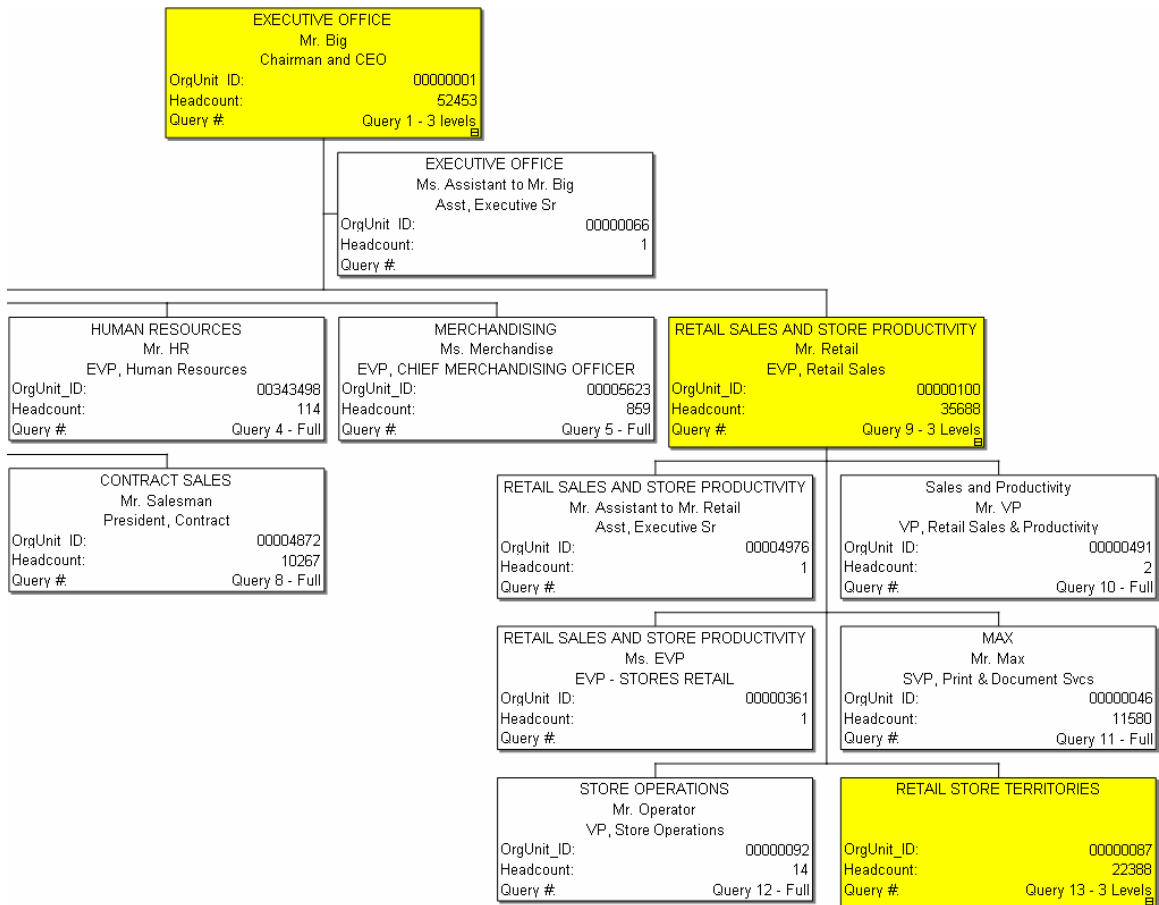
The *Formula Properties* dialog displays.



11. Set **Function** to *Count* and **Range** to *Branch and Mgr*.
12. Click **OK** in the *Formula Properties* dialog and again in the *Define Fields* dialog.



13. Click **Yes** to add your new fields to your chart.
14. Analyze the result to identify the larger parts of the organization that can be broken down into smaller queries.
15. Starting at the top of the organization, mark each large OrgUnit as a Shallow Query, mark each of the unique OrgUnits that report directly to a large one as a Full Query.



The number of queries depends on the amount of data, the memory of the SAP system, and how balanced the Organization is. For instance, are people divided across multiple divisions, or is one division overwhelmingly large.

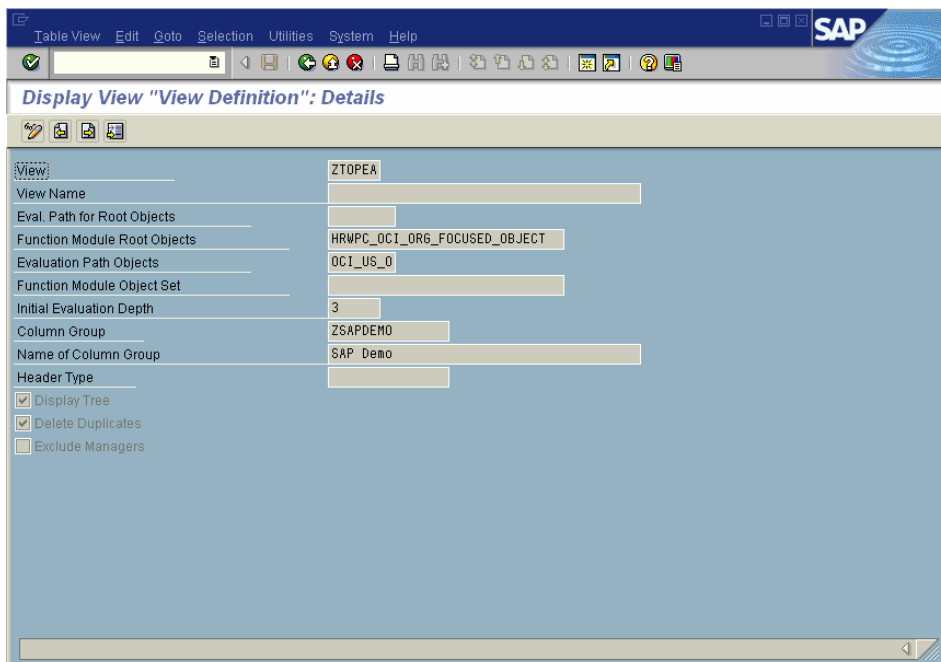
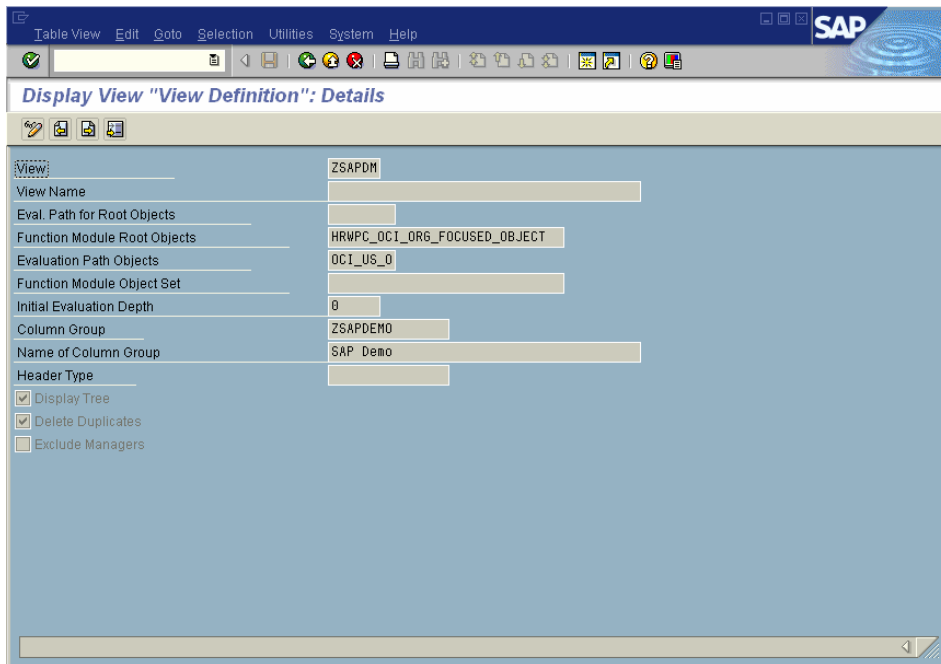
Note: Manager and Assistant usually belong to the same OrgUnit, so you may have some duplicate OrgUnit IDs. You do not need to query for the assistant separately.

Rearrange the order of the queries so that any sub-queries occur at the end of all the full queries of the same level.

Step 2 - SAP View Setup

For this step be sure you have an SAP View that extracts all of the desired fields from SAP. Make an exact copy of this view. If the evaluation path is OSP, change the Initial Evaluation Depth parameter of the copy from 0 (full depth) to 3. Set the parameter higher if more objects are included in the evaluation path.

The initial evaluation depth controls the number of Object Levels that are returned by SAP not Organizational Levels. This is a major distinction. If we query for 3 Object Levels and the evaluation path is OSP, then we will get OSP for the top level person but only OS for the second level and only O for the 3rd level.



Step 3 - OrgPlus Enterprise Setup

Specify your multi-chart query as part of the SAP (HR-OCI) domain Data Source in OrgPlus Enterprise.

- Sign in to OrgPlus Enterprise as an Administrator. Click **Domains** → **Add New Domain**. Give it a name and click **OK**.
- Expand your new domain and click **Data Source**. Change the adapter to SAP (HR-OCI).
- Fill in the SAP connection information as you would normally.

For the **View ID** and **Extended Object ID** fields, you need to provide a comma separated list of values where the value in the **View ID** matches the value in the **Extended Object ID**. The **View ID** value will be the name of either the Partial Query view or the Full query view. The corresponding **Extended Object ID** will be the OrgUnit/User/Position ID of that part of the organization that you are querying, as decided in **Step 1**.

