Developing Crystal Reports on ECC

Applies to:

SAP Business Objects Crystal Reports. For more information, visit the Business Objects homepage.

Summary

This white paper explores various methods of accessing ECC/R3 data through Crystal Reports.

Author: Arka Roy Chowdhury

Company: Cognizant

Created on: 1 February 2011

Author Bio

The author has worked in various support and development projects in SAP BW and Business Objects for over three years. He currently works for Cognizant.

Table of Contents

Introduction

This white paper explores various methods of accessing ECC/R3 data through Crystal Reports.

Connecting Crystal Reports to ECC

The following is discussed as to how data is extracted from ECC to Crystal Reports.

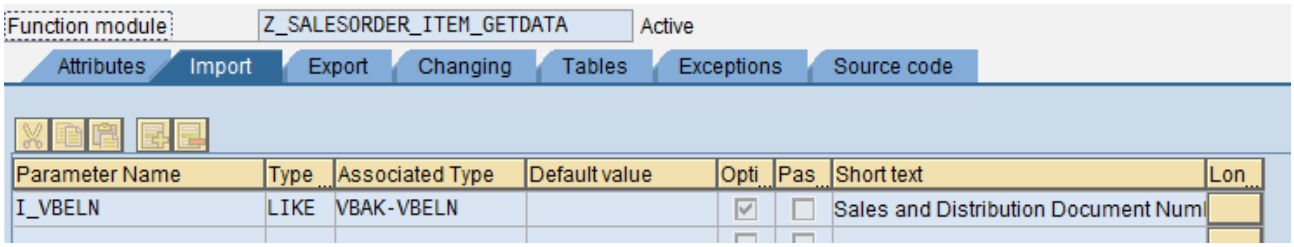
- Function Module
- Table and Table joins
- InfoSet and Query

Accessing Data through Function Module

There is a Function module **z_salesorder_item_getdata** that extracts header-level data for a particular document number. This FM data can easily be accessed by Crystal Reports.

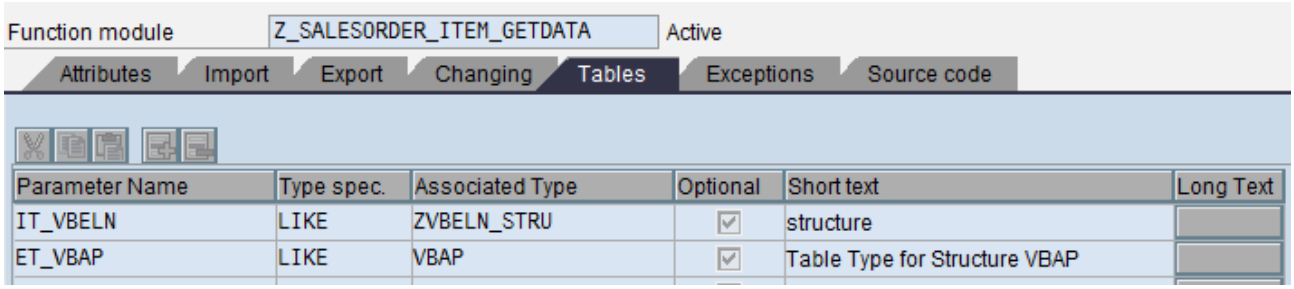
Here are some details of the Function Module under consideration:

Import Parameters

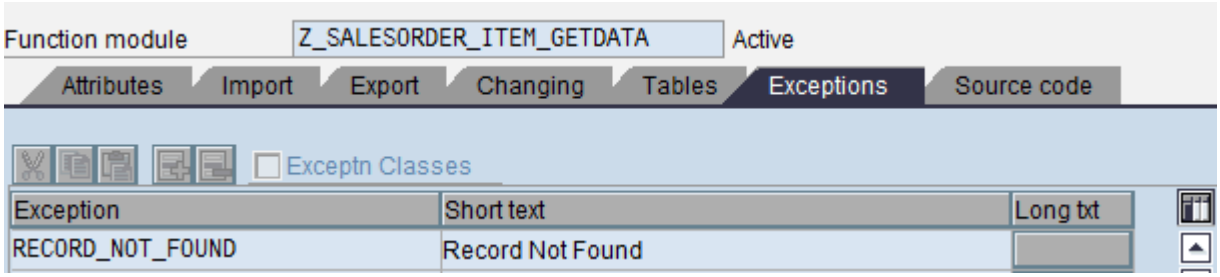


Note: Export parameters are blank.

Tables



Exceptions



Source Code

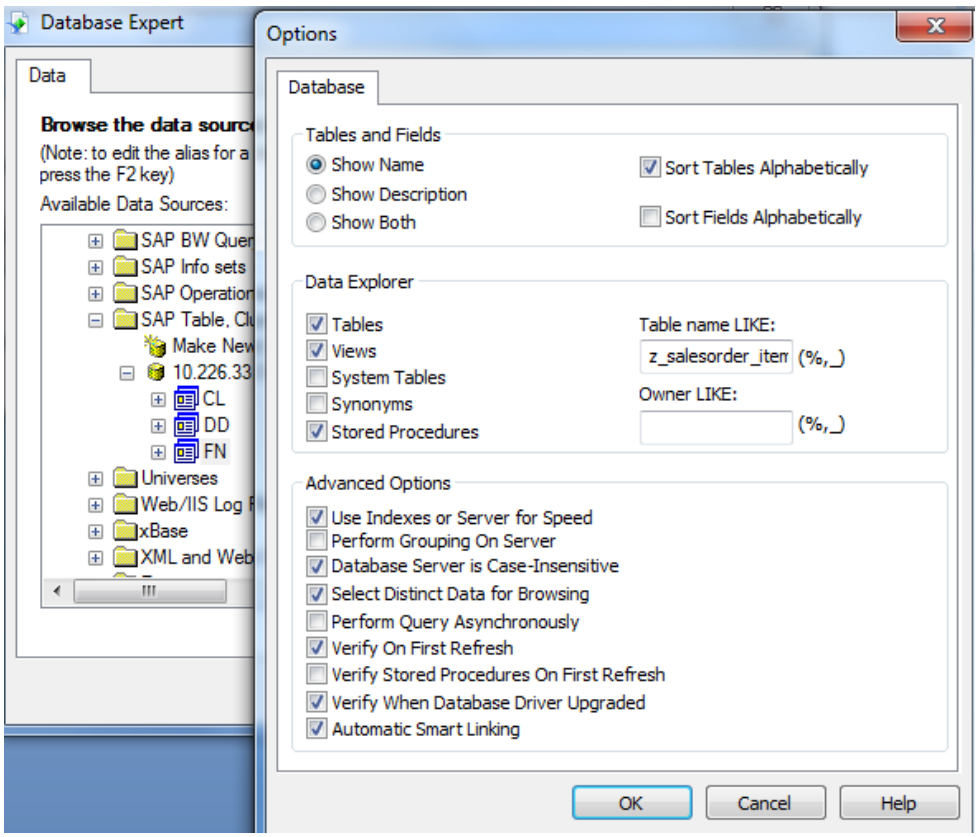
```
FUNCTION Z_SALESORDER_ITEM_GETDATA.
*"----------------------------------------------------------------------
*"*"Local Interface:
*"  IMPORTING
*"     REFERENCE(I_VBELN) LIKE  VBAK-VBELN OPTIONAL
*"  TABLES
*"      IT_VBELN STRUCTURE  ZVBELN_STRU OPTIONAL
*"      ET_VBAP STRUCTURE  VBAP OPTIONAL
*"  EXCEPTIONS
*"      RECORD_NOT_FOUND
*"----------------------------------------------------------------------

DATA : LV_VBELN(10) TYPE N,
       L_VBELN TYPE VBELN.

DATA : LS_VBELN TYPE ZVBELN_STRU.
DATA : IT_VBAP TYPE TABLE OF VBAP.


CALL FUNCTION 'WB2_VBAP_READ_WITH_VBELN'
  EXPORTING
    I_VBELN                  = I_VBELN
*   I_BYPASSING_BUFFER       = ' '
*   I_REFRESH_BUFFER         =
 TABLES
*   ET_VBAPVB                =
   ET_VBAP                  = IT_VBAP
 EXCEPTIONS
   RECORD_NOT_FOUND         = 1
   OTHERS                   = 2.
IF SY-SUBRC <> 0.
  RAISE RECORD_NOT_FOUND.
ENDIF.

APPEND LINES OF IT_VBAP TO ET_VBAP.

ENDFUNCTION.
```

Accessing Function module through Crystal Reports

Here are the steps:

Step 1:

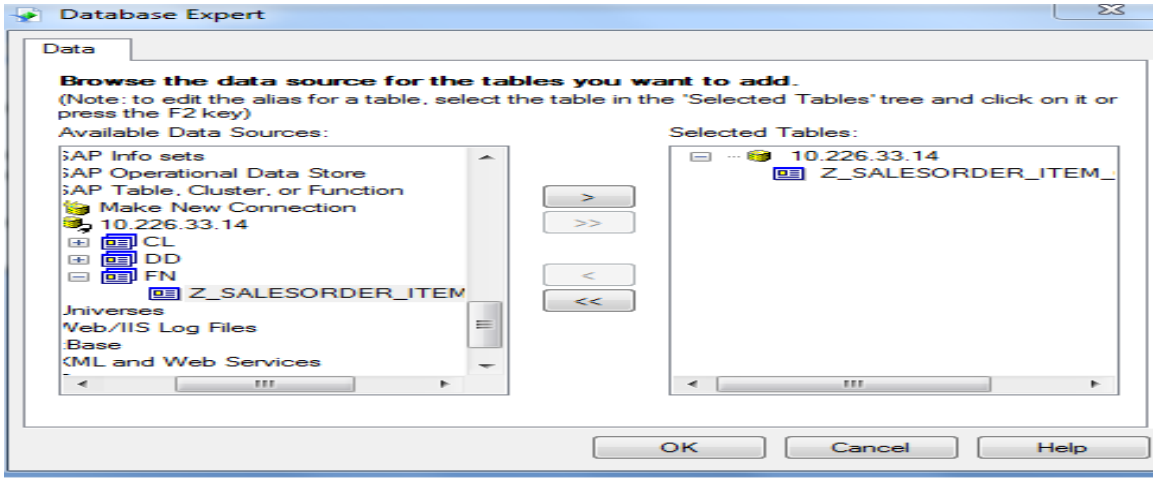
Go to the database expert. Navigate to the Function module.



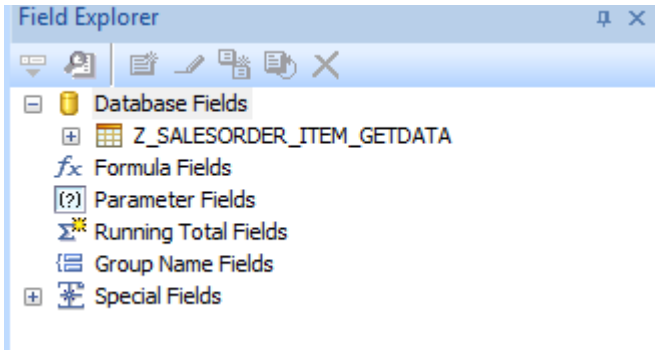
The Function module is listed in the data source tree (Sap Tables, Cluster or Function).

Step 2:

Copy it to the right hand space as shown in the figure below:



The function module is now ready to be used for the report. The available fields appear inside the Function module in the Field Explorer.



Accessing Data through Standard Tables or Views

Crystal Reports can also access tables or views just like the function modules. Joins can even be created directly in the database expert just by selecting more than one table.

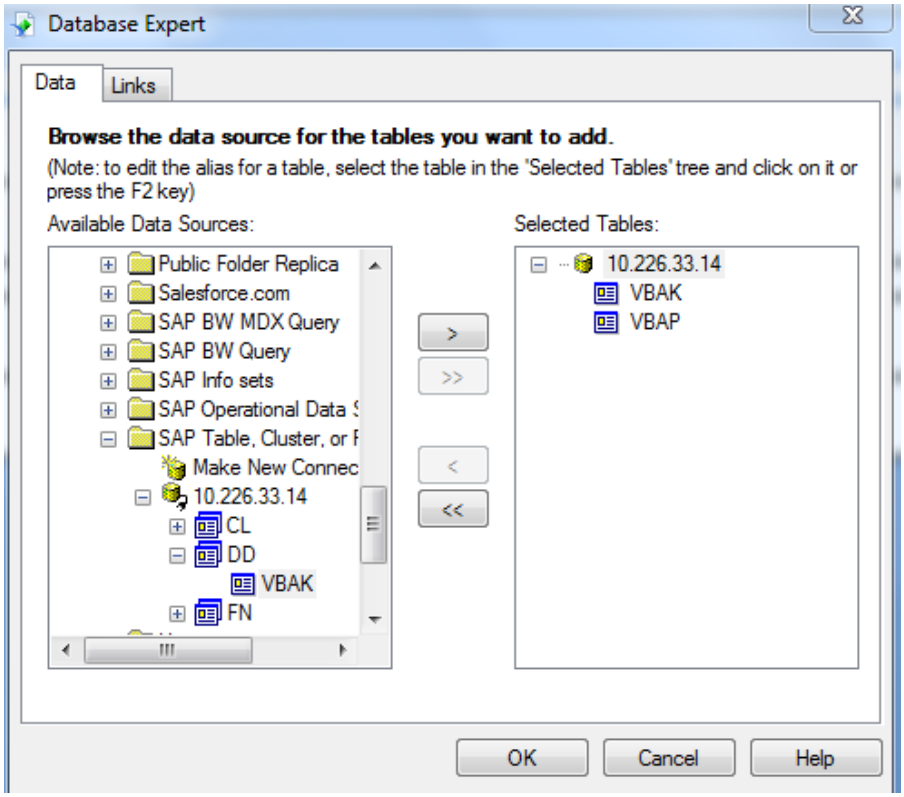
The following example will create a table join between the VBAP and VBAK table

Step 1:

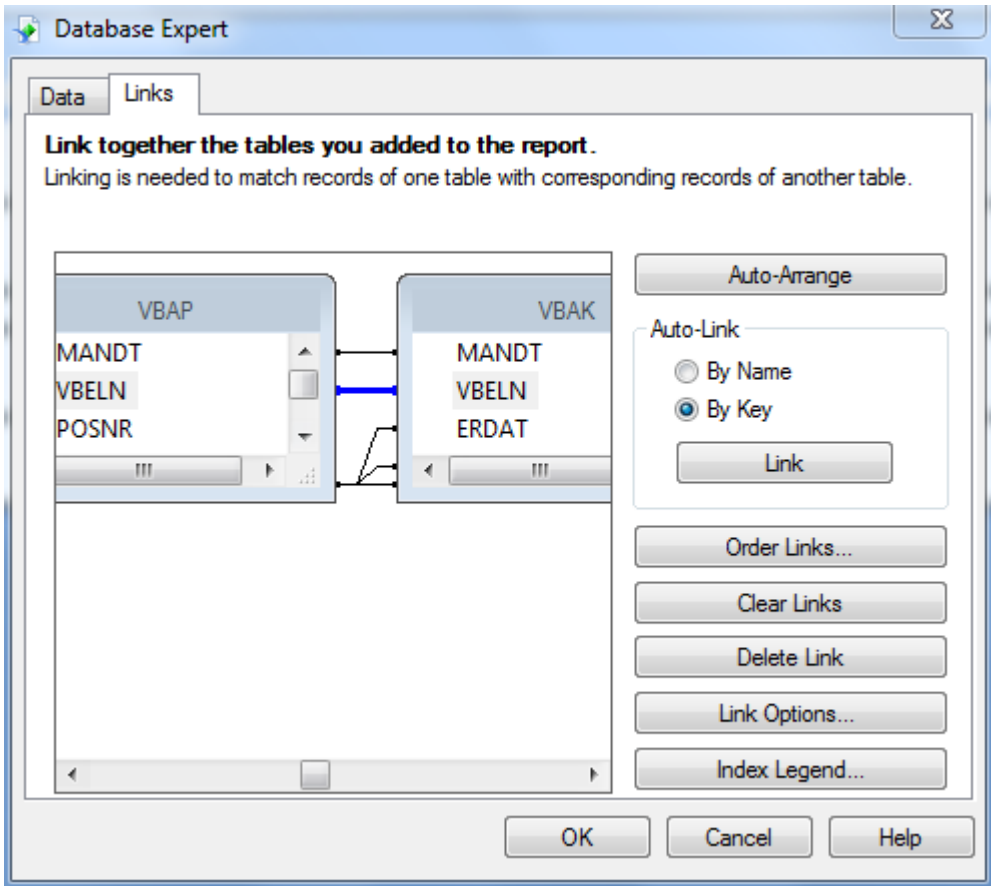
Go to the database expert.

Step 2:

Select the two tables as shown in the figure below:

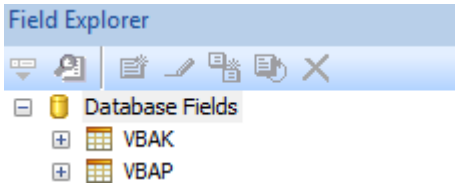


The join is automatically generated.



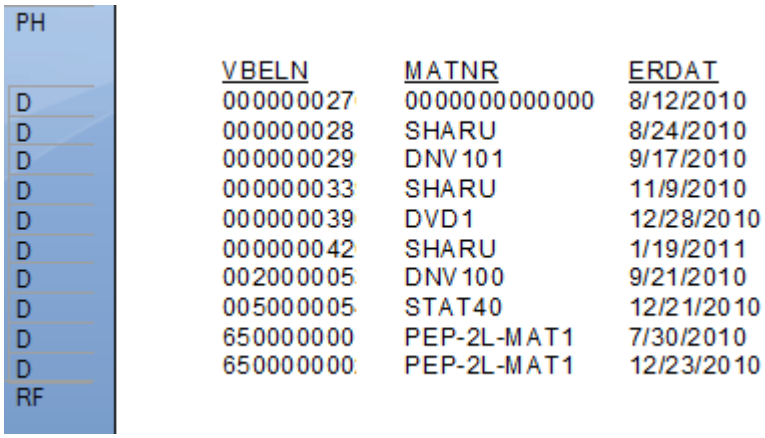
Step 3:

Click **OK**. The table fields are in the field explorer.



Step 4:

Drag and drop the field in the canvas to create the report.



Creating Crystal Report through InfoSet or Query

InfoSet Query is suitable for reporting in all areas of the SAP R/3 system.

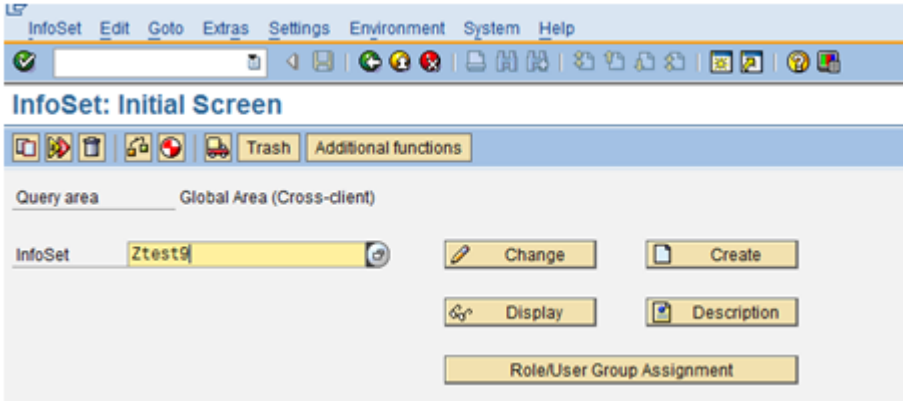
How to Create an Infoset

Step 1:

Go to tcode SQ02.

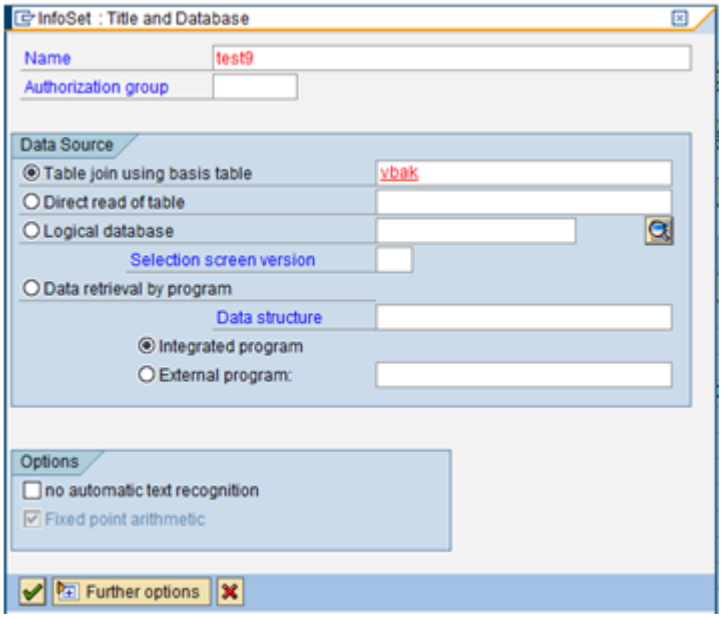
Step 2:

Give a suitable name to the InfoSet. Click **Create**.



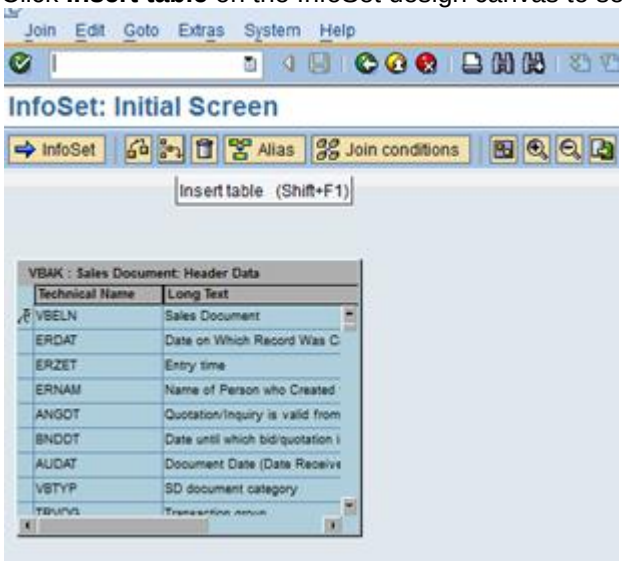
Step 3:

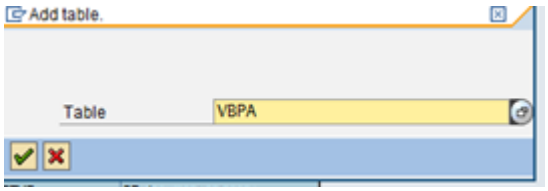
Provide the description and the name of the base table.



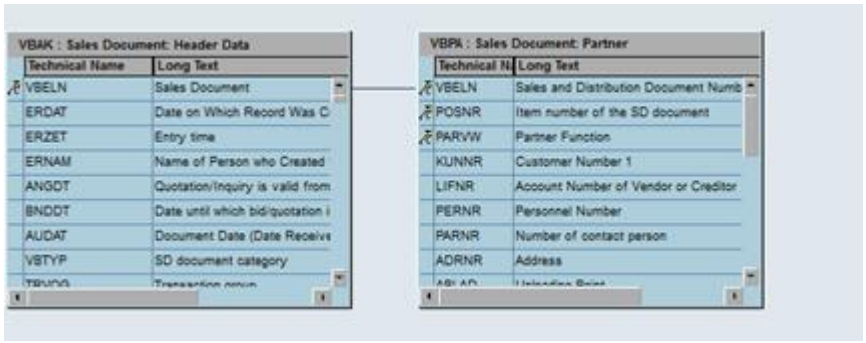
Step 4:

Click **Insert table** on the InfoSet design canvas to select the appropriate table to be joined.



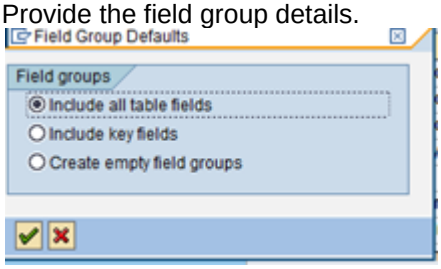


A join is automatically created, but it can be modified.



Step 5:

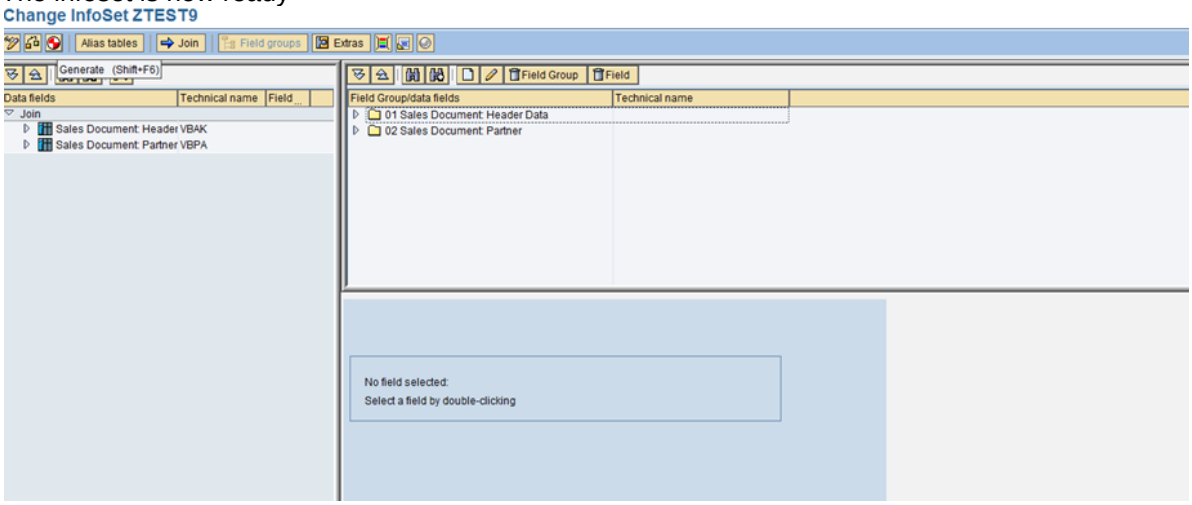
Provide the field group details.



Step 6:

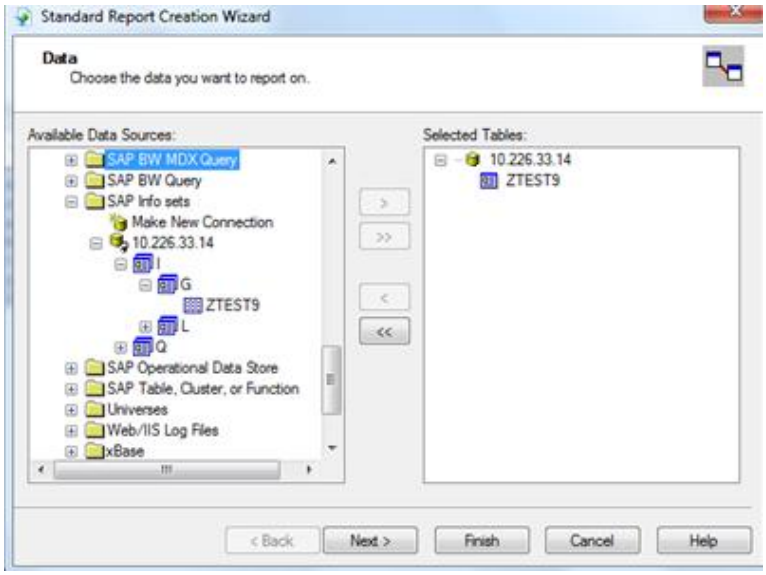
Click **Generate** on the InfoSet manage screen.

The infoset is now ready



Remember to assign roles and user groups to the infoset. Otherwise, it will not appear in the Crystal Reports database expert.

After assigning the roles and user group to the infoset (these should also be mapped to the user ID being used), the infoset appears in the database expert.



Since the query area is in global, the test infoset just created appears under the group of G.

G = global

L = local

I = infoset

Q = query

Step 7:

Click **Finish**. The infoset is ready in the field explorer of the Crystal report.
Similarly, access an infoset query.

Related Content

SAP Query Guide

Creating Function module

Crystal install Guide

For more information, visit the Business Objects homepage

Disclaimer and Liability Notice

This document may discuss sample coding or other information that does not include SAP official interfaces and therefore is not supported by SAP. Changes made based on this information are not supported and can be overwritten during an upgrade.

SAP will not be held liable for any damages caused by using or misusing the information, code or methods suggested in this document, and anyone using these methods does so at his/her own risk.

SAP offers no guarantees and assumes no responsibility or liability of any type with respect to the content of this technical article or code sample, including any liability resulting from incompatibility between the content within this document and the materials and services offered by SAP. You agree that you will not hold, or seek to hold, SAP responsible or liable with respect to the content of this document.