DDMSPLUS®: Advanced SQL Reporting Guide

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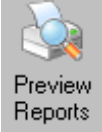
Introduction to Advanced SQL Reporting

The purpose of this document is to provide some background and general guidelines for how to create report definitions in the Component 1 Report Designer (C1). While ECI does not support C1, the following rules and definitions should be useful in designing reports that are compatible with Preview Reports. Both the C1 Designer and this document are intended for individuals already familiar with SQL databases and queries.

Building a Report with the C1 Report Designer

The following steps provide the basic flow for setting up a report in C1. These steps are intended as a guideline to get you started and not as comprehensive documentation for this product.

1. From the Main Menu, double-click **Reports Menu**.

2. From the Reports Menu, double-click **Preview Reports**. The Reports window opens.

3. From the Reporting Tasks menu, click Design a Report. The C1 Report Designer opens.

4. Click . The C1 Report Wizard opens.

5. Click ... to build a connection string. The Data Link Properties dialog box opens.

6. Click the Provider tab and select Microsoft OLE DB Provide for SQL Server.

7. Click Next. The Connection Tab opens.

8. Set Connection preferences

    8.1 In the Select or Enter a Server Name drop-down box, select a server that ends with ECI2.

    8.2 Select Use a Specific User Name and Password.

    8.3 Type **NetClient** in the User Name box.

    8.4 In the Password box, type **db_user**.

    8.5 Check the Allow Saving Password box.

    Note: The Allow Saving Password box must be checked for users to run this report in Preview Reports. The password is saved in the report definition XML file. The report needs this authentication to access the SQL database.

    8.6 Click Select the Database on the Server and choose Ensite in the drop down box.

9. Click Test Connection, and then click OK.

10. In the C1 Report Wizard, enter the SQL statement in the box provided or click to build a SQL statement. If you enter the statement, go to **Step 11**. If you select to build the SQL statement, the SQL Builder dialog box opens.
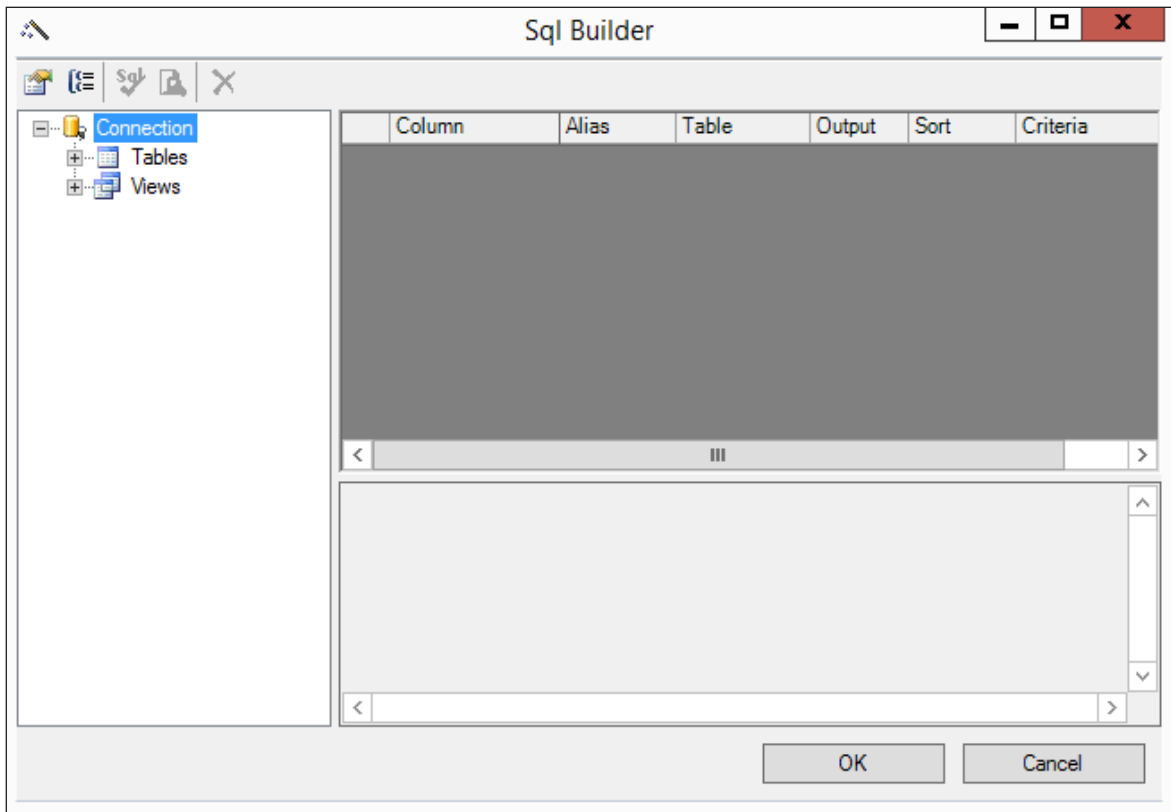
10.1   Click + (plus sign) next to Tables and Views to expand the view and find SQL data for your report. You can further expand the data, by clicking + next to any category.

10.2   Double-click or drag and drop the fields for your report into the top, right side of the screen. The SQL statement displays in the box below.

Note: Although the program allows you to select fields from multiple tables, this is not recommended. C1 does not create a join statement automatically. If you choose to select fields from multiple tables, you must manually enter a join statement in the SQL statement.

10.3   When finished selecting fields, click OK. You are returned to the C1 Report Wizard.

11.   Click Next. The fields display in alphabetical order in the second C1 Report Wizard dialog box.

Drag and drop the fields from the Available box to the Detail box. Make sure the fields are listed in the order they should appear on the report.

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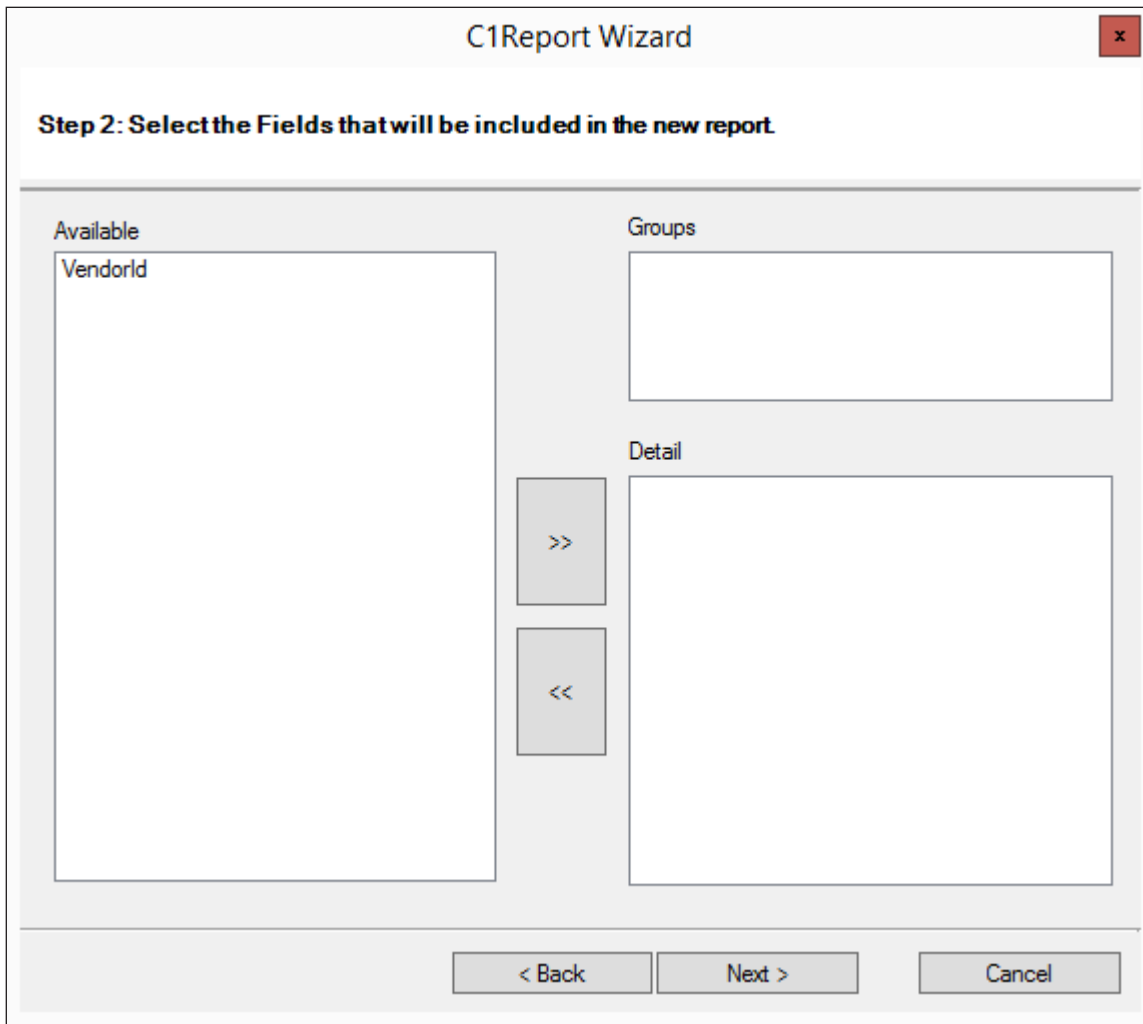
12. Click Next. The third C1 Report Wizard dialog box opens. Select the layout and orientation.

13. Click Next. The fourth C1 Report Wizard dialog box opens. Select the style for the report.

14. Click Next. The fifth C1 Report Wizard dialog box opens. Enter the name for the report.

15. Select Preview Report. Then, click Finish. The report is displayed.

16. Click to manually make changes to the report.

17. Add Sorting and Grouping options.

    17.1   Click . The Sorting and Grouping dialog box opens.
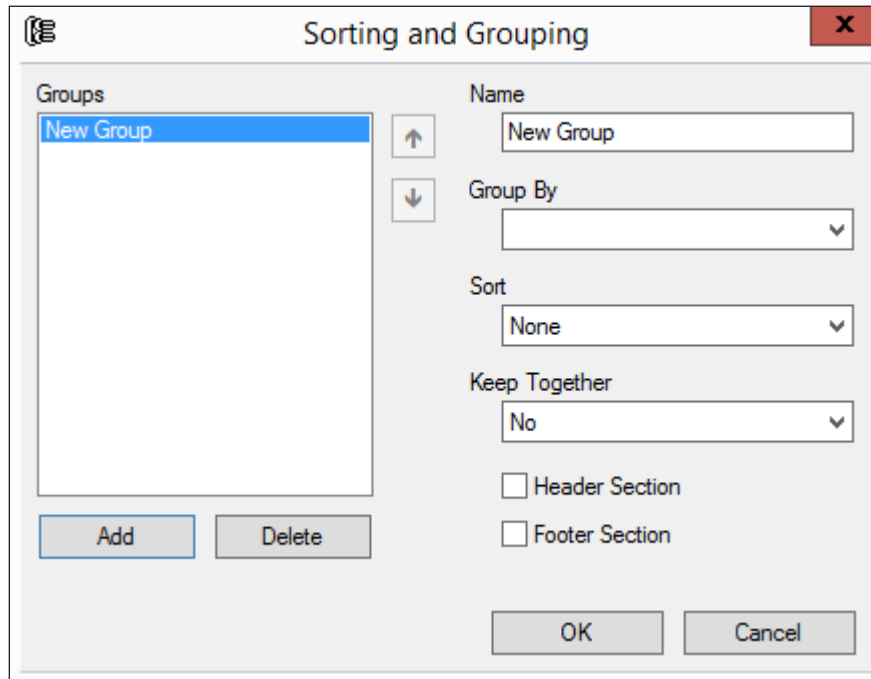
17.2   Click Add, and enter a name for the new group in the Name box.

17.3   Click OK. You are returned to the Report Designer.

18. In the Designer, drag the border of the new section to resize it.

Note: When adding new sections to an existing report, you must set the Visible property to True. Diagonal lines showing in any section of a report indicate that the setting is False. You can change this setting in the bottom left side of the window.

19. Add summary fields to the group by clicking .

19.1   In the VBScript Editor, click Fields.

19.2   In the drop-down box, select the field type and field name.

19.3   In the Designer, draw a box in the location to place the field.

20. To make changes to the way that a field is displayed, click on the field in the report and make changes using the bottom left box in the Designer.

21. Click to save the report.

How C1 Works with Preview Reports

The following tips and rules should help get you started on using the C1 Designer to create reports to view and edit with the Preview Reports function.

- Due to the complexity of many reports and the need for accurate results, DDMSPLUS® programming initially created the base queries and SQL views used in Standard Reports. These reports are available in Preview Reports. For more information, see Setting Up and Using SQL Preview Reports.

- C1 report definitions are stored in XML files. Your software installation creates a Reporting folder inside your DDMSPLUS folder. In the reporting folder, there are two folders: Custom and ECI2.

  - Use the Custom folder to save custom report formats. If custom report formats are not saved here, they must be saved somewhere on the DDMSPLUS server.

  - The ECI2 folder contains the report definitions designed and released by DDMSPLUS. It is strongly recommended that report creators use these formats as examples or starting points for their formats. Because the files in this folder are replaced on every install, users should not save their custom reports in this folder.

  - The dealer must share the Reporting folder as read-only so that clients can run reports. In addition, if the dealer has people who design reports, these people need to have read/write permissions for the Custom directory to design reports from client workstations.

- The DDMSPLUS software installation updates report groups and the specific report entries. Any new SQL views created for reports are added by the install. All the SQL views created for the reporting project start with the prefix of ViewAlias.

- Active, SalesJournal, and Archive file names are not handled at run time, but are fixed to a set of files as determined by the data source. Therefore, you have different formats with different data sources for Active, Journal, and Archive files.

How Report Definition Fields Are Used in Preview Reports

- The ReportInfo.Name field, along with the name and path of the Report Definition XML file, is used as a reference from the Preview Report list of cataloged reports. If either of these changes after a report is cataloged, then the cataloged report can no longer be found and must be added to the Preview Reports application again.

- A report entry in Preview Reports includes ReportInfo.Title (used as a description for the report) and ReportInfo.Author (who created the report) from the report's XML definition file.

- Preview Reports contains an internal list of all possible fields that may be used as additional limit fields (the Master Limit List). The list of fields that can be used as limits for a particular report are all the fields from the report's select statement that match a field in the Master Limit List. If alias names are used in the data source select statement, the field's alias name in the select statement must also match the name in the Master Limit List.

- Fields that are in the data source list of tables or views are only available for formatting on a report if they are listed in the highest level select statement. A select statement makes all fields from those tables or views available.

- Any reports run through the Preview Reports application are first limited by the "where" clause in the report's initial data source statement. Other limits assigned through the Preview Reports application only further limit the data from the initial data source, i.e., you cannot remove limits imposed by a "where" clause in the report's original data source. This allows the user to still set other limits and sorts within their controlled data set. Any limits that are selected in the Preview Reports limit screen are then temporarily added to the original data as an additional "where" clause.

- Active, Journal, and Sales Archive file names cannot be changed at run time. To run a sales report from an archive file, you must create a new report and use that sales archive table name in the Data Source select statement.

- Sorts and Groups are essentially the same concept in C1 as in the Preview Reports application, except that the sorts don't print a group header or footer (a sort is a hidden group). The user has the ability to set any combination of sorts and groups. The setting of groups at run time is done by replacing existing groups on the format. If the format has no groups set up, then no groups can be set on the fly. If only two groups are set up then only two groups can be set in Preview Reports.

Quick Reference Guide

The following is a quick reference guide of the sort/group fields in Preview Reports as they relate to the report definition.

- **Group By:** The field that this group is using for grouping the data.

- **Sort:** Data in the Group By field is sorted in this order.

- **Header Visible:** Indicates if anything should be printed at the start of this group.

- **Footer Visible:** Indicates if anything should be printed at the end of this group.

- **Header and Footer Data Fields:** Information that prints at the start of this group (header) or end of this group (footer).

- **Page Break:** If checked, this indicates that a page break occurs before this group header prints or a page break occurs after this group's footer prints, depending on the header/footer button. Page breaks only work if that section is visible; the page break option is disabled when it is not available.

- **Label:** If there are any labels fields on this group's header or footer (depending on the header/footer button), then the first label field found is displayed and can be changed or cleared.

- **Data 1:** If there are any data fields on this group's header or footer (depending on the header/footer button), then the first data field found is displayed and can be changed or cleared.

- **Data 2:** If there are any data fields on this group's header or footer (depending on the header/footer button), then the second data field found is displayed and can be changed or cleared.

- **Data 3:** If there are any data fields on this group's header or footer (depending on the header/footer button), then the third data field found is displayed and can be changed or cleared.

  The Group By, Data 1, Data 2, and Data 3 combo boxes show a list of all the data fields available in the current report as found in the data source select statement.

  The Label, Data 1, Data 2, and Data 3 fields can only be changed if they already exist in the report format. These fields cannot be added to the format if they don't already exist in the format designed in Component 1; they are disabled to reflect this.

Glossary of Terms

- **Report Definition:** In the Component 1 Report Designer, this is a definition of how a report physically prints (like (+Z)) in Report Writer. This also contains a SQL query that defines which field from which files is available on the report.

- **Data Source:** This is a string, essentially a SQL query statement, that defines what data tables, views, and fields are used by a report format. This is set through the Component 1 Designer by the report format creator.

- **View:** This is a SQL query that is predefined and provided by DDMSPLUS for common queries that may be needed for reporting. These views can ease the work of the report creator for accessing the SQL database. A view can be thought of and used like it is just another SQL table.

- **Aggregates:** Any kind of data totals that are defined in the records source. Once defined they are used just like normal database fields.

- **Connection String:** This is a string that defines the connection to the DDMSPLUS SQL server. It includes the name and path to the local server and the user/password permission to access the SQL server.

- **Master Limit List:** DDMSPLUS programming maintains a list of fields organized by their SQL tables that are commonly used for limiting data. This list is constantly growing as new EBS projects require additional limits or when product management requests new fields to be added to the list for reports or other projects. As more standard reports are released, more fields are added to the Master Limits List.