

Seagate Crystal Reports Designer

Frequently Asked Questions on Designing Reports

Objectives

This document answers some of the most common technical support questions we receive about report design. Most of these answers include cross-references to additional information in Knowledge Base articles or technical papers on our support website. Applies to version 5 or higher of the Seagate Crystal Reports Designer and the Seagate Info Report Designer.

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Frequently asked questions & answers

Printing & Performance

Why don't other Windows applications experience similar problems printing to the same printer and printer driver?

Crystal Reports does not get font information like other programs do. When font information is obtained the same way as other Windows applications, performance can slow down considerably.

To maintain report performance, Crystal Reports queries the printer driver for font elements such as average character height, character width, height of ascenders/descenders, internal/external leading, and maximum character width (to name a few).

Problems can arise, especially with older printer drivers, when the printer driver does not return the font metrics accurately. In many cases, the newer, updated drivers provide more accurate font metrics. This is why updating the printer driver usually corrects the problem of missing or inaccurate printing.

For more information on Crystal Reports printing issues, please go to <http://support.crystaldecisions.com/docs> and search for:

SCR56_printwysiwyg.pdf, which is a paper on Alignment, Preview, Printing and WYSIWYG

SCR_printspeed.pdf, which is a paper on Factors Affecting Printing Speed

SCRprinterdependency.pdf, which is a paper on Printer Driver Dependency

I was told to update my printer driver to fix some printing issues, but an updated version of my printer driver is not available.

Although we recommend installing the most current version of your printer driver to fix printing issues, sometimes you need to experiment with different printer drivers until you find a good match between Crystal Reports and your printer output.

Here are some suggestions:

- Try printer drivers from other, similar printers made by the same manufacturer
For example, you can interchange the HP LaserJet 5 Series and LaserJet 4 Series printer drivers, and most of the Canon BJC Series is interchangeable.
- With dot matrix printers, you can try using the printer driver of one manufacturer with a printer from another. They are compatible because several dot matrix printer manufacturers have been known to use the same third-party manufacturer to create their printer drivers.

For example, some Okidata and NEC line printer drivers are compatible. Also, certain printer manufacturers (as well as Microsoft) make generic line printer drivers.

- Another solution is to install a previous version of the same printer driver. Although this is a less-than-ideal solution, it can sometimes fix certain compatibility issues, such as font metrics, font substitution, truncation, and poor formatting.

Why does my report print differently on a client's computer?

An example of this is the report is printing in portrait rather than landscape orientation, which cuts off a portion of the report fields.

Reports often require specific printer properties to print correctly. When designing a report that will be previewed and/or printed on a different computer, configure the printer setup in the Report Designer to use the default printer with report-specific printer properties.

'Printer properties' refers to paper size, source, orientation and so forth.

For more details on configuring your printer setup when distributing a report, go to <http://support.crystaldecisions.com/kbase> and search for Knowledge Base article ID C2000056.

For more background information on printer driver dependency, go to <http://support.crystaldecisions.com/docs> and search for SCRPrinterDependency.pdf.

How can I reduce the time it takes for Crystal Reports to process and / or print my report?

For information in speeding up report processing and printing, go to <http://support.crystaldecisions.com/docs> and search for the following technical papers:

- SCR_RecSel.PDF, which is a paper on Performance Considerations for Record Selection Formulas in Crystal Reports 5 & 6.
- SCR_printspeed.pdf, which is a paper on Factors Affecting Printing Speed.
- SCRtips.pdf, which is a paper on Tips to Improving Report Processing Speed.

Subreports

How can I link my subreport to my main report?

There are two ways to link a subreport:

- Use method I when you first insert the subreport into the main report
- Use method II if the subreport has already been inserted into the main report.

Linking method I

1. After you have selected or created the subreport, and have returned to the **Insert Subreport** dialog box, click the **Subreport Link** tab.
2. In the **Containing Report** box, select the linking field from the main report, and then click **Add**.
3. Select the subreport from the **Subreport** box.
4. Select the table and the field in the **Subreport to link on** box.
5. Click **OK**.
6. Position the subreport in the desired section of the main report.

Linking method II

1. On the main report, right-click the subreport.
2. Select **Change Subreport Links**.
3. Now follow steps 2 - 5 as described in Method I.

To learn more, go to <http://support.crystaldecisions.com/docs> and search for SCR_Subreports.PDF, which is a paper on Linked and Unlinked Subreports.

How do I suppress a section containing a blank subreport?

A subreport is an object, so even when it is blank it still exists as an object in the main report section. This means as long as that section contains a subreport object, it will never be blank.

To get around this:

- Create a duplicate subreport and place it in a section above the section containing the original subreport. You might need to insert an additional sub-section to accomplish this.
- Create a formula in the duplicate subreport that returns a true if the subreport is blank.
- This value can then be shared with the main report, and used to conditionally suppress the section containing the original subreport.

For detailed, step-by-step instructions on suppressing a section containing a blank subreport, go to <http://support.crystaldecisions.com/kbase>:

- If you are using Crystal Reports version 5 or 6, search for article ID C2000055.
- If you are using Crystal Reports version 7 or higher, search for article ID C2005853.

Parameters

How can I display range or multiple value parameters on my report?

When a multiple value parameter is placed on a report, it only displays the first value. This happens because Crystal Reports stores multiple parameter values as an array. Placing an array on a report will display only the first value in the array.



To get around this, you can create a formula to display all the values in the parameter. This is explained in several Knowledge Base articles on <http://support.crystaldecisions.com/kbase>:

- If you are using Crystal Reports version 8, search for Knowledge Base article ID C2007811.
- If you are using Crystal Reports version 7, search for Knowledge Base article IDs C2002288 (for multiple-value parameters) or C2005435 (for multiple-range parameters).



How can I change the order of the parameter prompts for the report?

You can do this with the  and  buttons in the **Insert Fields** dialog box in version 7 or lower, or in the **Field Explorer** dialog box in version 8.

In Crystal Reports version 7 or lower:

1. On the **Insert** menu, click **Parameter Field**. The **Insert Fields** dialog box appears, with the Parameter tab open.
2. On the list of parameter fields, select a parameter.
3. Use the  or  buttons to change the order the parameters display.
4. Continue steps 2 and 3 until the parameters display in the order you want, and then click **OK** to return to the report.

In Crystal Reports version 8:

1. On the **Insert** menu, click **Parameter Field**. The **Field Explorer** dialog box appears.
2. Expand **Parameter Fields**, then select a parameter from the list.
3. Use the  or  buttons on the Field Explorer toolbar to change the order the parameters display.
4. Continue steps 2 and 3 until the parameters display in the order you want, then click **OK** to return to the report.

Exporting

Why does my exported report look different in the exported format than in Preview window of the Crystal Reports Designer?

When you export a report to a file format other than Crystal Reports format (RPT), although the program attempts to preserve as much formatting as the export format allows, you may lose some of the formatting that appears in your report.

If you are seriously considering exporting your report to formats other than RPT, you need to understand what report features are supported by the export DLL you are choosing. For example, if you have designed a form letter report, and you export it to Excel format (a spreadsheet program), you will lose almost all formatting.

To help you decide which export format is best suited to your needs, visit <http://support.crystaldecisions.com/docs> and search for these files:

- Export56.exe –contains a spreadsheet outlining *Export Limitations & Supported Features (Crystal Reports 5 & 6)*.
- SCR7ExportLimitations.zip –contains a spreadsheet outlining *Export Limitations & Supported Features in Crystal Reports 7*.
- SCR8_ExportLimitations.zip –contains a spreadsheet outlining *Export limitations for version 8*.
- Exporthtml.pdf - discusses *Exporting to HTML*.
- Exportlotusnotes.pdf –discusses *Exporting to Lotus Notes*.
- Scr_exportexcel.pdf –discusses *Exporting to Excel*.
- Exportrtf.pdf –discusses *Exporting to RTF*.

Why are some fields truncated when exporting to text?

There are several reasons that could explain why this is happening. For details, go to <http://support.crystaldecisions.com/kbase> and search for these article IDs:

- C2003040 – *Exporting to text truncates trailing spaces*.
- C2005384 - *Exporting report to text occasionally truncates lines in exported document*.
- C2005386 - *Exporting to Text changes depending on screen resolution*.
- C2005519 - *Exporting to text truncates text objects and report fields*.
- C2005517 - *Changing screen resolution can truncate data when exporting to text*.

Why are the page numbers in the Page headers repeating when exporting to Word?

Word does not support any dynamic objects such as special fields, database fields, or formulas in page footers. This is a limitation of Microsoft Word, not the Crystal Reports exporting DLL.

If you are exporting a report to Word format, avoid using the special field PageNumber when designing the report. Instead, use MS Word's page numbering option.

Formulas

Are there additional functions that you can add to the Formula Editor?

Yes. The formula language of Crystal Reports is expandable. The Formula Editor has the ability to accept new functions created by developers for specific needs. We refer to these new functions as additional *user function libraries* (UFLs).

Additional UFLs are not included when you install Crystal Reports. You need to install them separately. Once you have installed the necessary UFL file you will see the new function(s) in the Additional Functions folder of the Crystal Reports Formula Editor.

To add more functions to the Formula Editor in the Crystal Report Designer, you need to copy the relevant User Function Library DLL into the Windows\Crystal or Winnt\Crystal directory.

To find out what additional UFLs you can download from our website, go to <http://support.crystaldecisions.com/docs> and search for cr_ufls.pdf.

Why can't I browse a field, or see the field in the Formula Editor?

If you right-click a field, and the **Browse Data** option is greyed-out, the field is being read as a Memo field in Crystal Reports.

Crystal Reports does not currently support Memo fields in formulas or selection formulas. Because of this, you will not be able to browse data in Memo fields or reference Memo fields in formulas.

NOTE	One exception is the IsNull or NotIsNull functions. You can use Memo fields with these functions in a conditional formatting formula or a formula field. For more details on this, go to http://support.crystaldecisions.com/kbase search for article ID_C2005455.
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Crystal Reports reads database fields that meet any of these criteria as Memo fields:

- Fields exceeding 254 characters in length.
- Fields formatted as VarChar in the database (variable character length field).
- Fields formatted as Blob or Memo in the database.

Why does a formula produce the error: "The function cannot be used because it must be evaluated later"?

This error usually happens when trying to insert a second pass function into a record selection formula. Since Crystal Reports evaluates record selection formulas during the first pass of the data, they cannot contain second pass functions.

A *pass* refers to the process of reading records from the database and then manipulating them. There are two main passes in Crystal Reports:

- The first pass reads the data record by record from the database and creates basic summaries. All this is then stored into a temporary file.
- In the second pass, this temporary file is then read and more complex manipulations are performed on the saved data

In general, second pass functions are functions that require data from more than one record. Examples of second pass functions (also known as WhilePrintingRecords or print-time functions) are:

Next	Previous
NextIsNull	PreviousIsNull.

To learn more about Crystal Reports' two-pass report processing, go to <http://support.crystaldecisions.com/docs> and search for SCR7_EvaluationTime.PDF, which is a paper on *Evaluation Times and the Two-Pass Report Processing Model*.

Why am I able to insert summaries on some formulas, but not on others?

Crystal Reports usually evaluates formulas during the first pass of the data. These formulas are known as recurring formulas. However, if the formula contains a second-pass function (described in the answer to the previous question), this forces Crystal Reports to evaluate the formula during the second pass instead.

Crystal Reports creates summaries after evaluating any recurring formulas during the first pass. Since Crystal Reports has yet to evaluate the second pass formulas, it cannot create a summary for them.

To summarize second-pass formulas, create manual running totals (that is, formulas that store the running total in a variable, instead of running total fields created in the Running Total Expert).

To learn more about running totals, go to <http://support.crystaldecisions.com/docs> and search for SCR_RunningTotals.zip, which contains a document on *Everything You Need to Know about Running Totals*, as well as sample reports.

Why are my date-conversion formulas producing errors like “a Date is required here” or “a String is required here”?

These errors indicate that you may be returning your Date or Date-Time fields in a format that is not appropriate for your formula.

For example, say you are trying to assign a value to a Date variable using a formula similar to this:

```
DateVar MyDate:={DateTimeField}
```

When you check this formula, the Formula Editor returns the message ‘A date is required here’. This happens because you are trying to assign a Date-Time field to a Date variable.

There are three ways to correct this:

- Convert all Date-Time fields so Crystal Reports reads them as Date fields. To do this:
On the **File** menu, click **Report Options**, and in the **Convert Date-Time** box, select *to Date*.

- Change the Date variable to a Date-Time variable, as illustrated below:

```
DateTimeVar MyDate:={DateTimeField}
```

- Extract the Date from the Date-Time field, as illustrated below:

```
DateVar MyDate:=Date({DateTimeField})
```

Incorrect Data and/or errors when previewing

The formatting option “Suppress if Zero” does not work

The condition “If {Numberfield} = 0 then...” is never true

A record or group selection formula using “{Numberfield} = 0” does not return any records.

In the majority of these cases, the problem is that the value contained in the field or formula that is being compared is not exactly zero, but rather, is a very small value (such as 0.0002 or 0.001). If you have formatted field to display fewer decimal places on the report, it isn't obvious that these values are actually zeros.

To solve this problem, try changing your conditional formulas, or selection formulas to use the **Round ()** function:

- Conditionally suppress the field/object when:

```
Round ({field}) = 0
```

- Change conditional formulas to use:

```
If Round ({field}) = 0 then ...
```

- Change selection formulas to use:

```
Round ({field}) = 0
```

Why is my suppressed data being included in my Subtotal or Grand Total?

All inserted summary fields (subtotals, summaries and grand totals) **always** return values based on all the records in the report, regardless of whether the summarized field (or section containing the field) is conditionally suppressed.

This happens because Crystal Reports processes summary calculations during its first pass of the data, whereas conditional suppression and “hiding” of sections or objects occurs at the end of the second pass of the data.

To get around this, create a conditional summary so Crystal Reports only summarizes the values that meet your condition. Before you can do this, you first need to determine whether your condition are evaluated during the first or second pass condition.

- A first pass condition only requires the value of the current record to be assessed.

Conditional or absolute suppression of fields and sections merely prevents certain records (or field values) from displaying on the report; however, these records or values are still included with the report data. This happens because Crystal Reports determines which database records are included with a report before it evaluates any absolute or conditional formatting (such as suppression).

Let's assume that you have a report based on the Customer table from either the Craze or Xtreme database and you want to total the field {Customer.Last Year's

Sales} for all the records *displayed* on the report. The report actually includes more records than what is visible on preview, but some records are suppressed.

For example, say you have formatted the Details section to suppress when the {Customer.Last Name} field is equal to 'Smith'. In the formatting formula editor, you would have created a formula similar to this:

```
{Customer.Last Name} = "Smith"  
//when this condition is true, Crystal Reports is to  
suppress the //Details section
```

In this case, if you inserted a grand total on the {Customer.Last Year's Sales} field, it would include the last year's sales values for all the customer records included with the report data, regardless whether those records are displayed on the report or not.

To create a grand total that excludes conditionally suppressed records:

1. Create the formula below and place it in the Details section:

```
If {Customer.LastName} < > "Smith" then  
    {Customer.Last Year's Sales}  
Else  
    0
```

2. Now, right-click this new formula in the Details section. Because this is a Numeric first pass formula, you will get an option in the shortcut menu to **Insert Grand Total**.

You have now created a conditional formula that only totals the {Customer.Last Year's Sales} values for customers who don't have a last name of "Smith".

- A second pass condition is based on a summary value, or a condition that depends on records other than the current record (that is, the record that Crystal Reports is currently evaluating).

The following is an example of a second pass conditional formatting formula, since the Next function requires Crystal Reports to know the value of the following record's {Customer.LastName} field:

```
If {Customer.LastName} = Next ({Customer.LastName})  
then...
```

Assume that you have a report based on the Customer and Orders tables from the Craze or Xtreme database. This report is again grouped by Region, and you want to add up the field {Orders.Order Amount} anytime the condition shown above is True.

To accomplish this, you will need to create a set of Running Totals formulas, because the condition is a 2nd pass condition.

For full details on how to create this type of conditional summation, please visit our <http://support.crystaldecisions.com/docs> and search for SCR_RunningTotals.zip, which is a paper on *Everything You Need to Know about Running Totals*.

Why are my grand totals and/or summaries incorrect after performing a group selection or Top N/Bottom N sort?

Unlike record selection, which actually filters certain records from being included in the report data, group selection merely conceals groups of records from displaying on the report. Crystal Reports still includes the records in the filtered-out groups with the report data.

The same explanation applies to Top N or Bottom N sorts where the 'Other' group is excluded from the report.

This is a result of how Crystal Reports performs two passes over the report data. While record selection is evaluated during Crystal Reports' first pass of the data, group selection is evaluated during the second pass. Because Crystal Reports creates summaries towards the end of the first pass (therefore prior to evaluating group selection or Top N sorts), the summaries don't reflect the groups that have been suppressed from the report.

To correctly summarize and/or total a report that has a group selection formula, use running totals instead of inserted summaries, subtotals or grand totals.

To learn how to create running totals, go to <http://support.crystaldecisions.com/docs> and search for SCR_RunningTotals.zip, which is a paper on *Everything you Need to Know about Running Totals*.

How can I exclude duplicate records from my report?

In many cases, duplicate records are an unavoidable result of table linking. To learn more about this, go to <http://support.crystaldecisions.com/docs> and search for SCR_PCLinking.pdf, which is a paper on *Defining file links for PC-Based databases in Crystal Reports*.

To learn how to exclude duplicate values from being included in report subtotals and totals, go to <http://support.crystaldecisions.com/kbase> and search for article ID C2005755.

When previewing my report, a formula fails with the error: "a String/Date/Number is required here". But when I check the formula it tells me "No errors found".

When I preview my report, some of my Date or Number fields return as blanks.

Both of the situations above are nearly always attributed to fields containing nulls. When Crystal Reports encounters a null value in a field while previewing, one of two things can happen:

- If the field is a Number, Currency or Date field, you will easily recognize the nulls because those records will return "blanks" instead of numbers or dates.
- If a Formula field encounters a null, the formula will immediately fail and not process.

There are two methods that can be used to correct these situations:

- Convert nulls to the default value for the field's data type.

To do this, on the **File** menu, click **Report Options**, and check the box

beside **Convert Null to Default**.

This forces Crystal Reports to return blanks in place of null String fields, zeros for null Currency/Number fields, and Date (0,0,0) for Date fields.

- Add an If Then Else statement that checks for nulls into your formulas. If your formula originally said this:

```
{NumberField} * 3
```

Modify it to check for nulls, like this:

```
If IsNull ({NumberField}) then
    0
Else
    {NumberField} * 3
```

- Replace fields that return nulls with formulas that check for nulls before displaying the field value.

For example, say you have a Number field that may contain a null for some records in the database. You would like the report to display zeros instead of blanks for the null records. You could build a formula like this:

```
If IsNull ({NumberField}) then
    0
Else
    {NumberField}
```

When I try to preview my report, the error message “database or file not found” appears.

I have tables and/or fields missing in the Visual Linking Expert.

Behavior like this generally indicates that some change has been made to your database or database structure, such as

- Changing field names, field types, or table names
- Adding fields or tables to the database
- Removing fields or tables from the database.

When such changes occur, you must update Crystal Reports so it recognizes the new data structure.

Caution	Any time you encounter data structure changes it is recommended that you save your report under a different filename, using the Save As... command. This will allow you to go back to your original report if anything goes awry during the verify process.
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1. Load your report and stay in the Design tab.
2. On the **Database** menu, click **Verify Database**.

If changes have been made to the database or database structure, a message box containing the following text is displayed:

“There have been changes to the table <tablename>. Do you wish to fix up your report?”

At this point, two options are available to you:

- Saying “Yes” allows Crystal Reports to automatically update your report by removing any fields that are no longer found in the database. It will not remove formulas, but due to changes in the data structure, you may need to edit your formulas for them to work properly.
- Saying “No” means you must physically remove all fields that no longer exist in the data structure yourself. In addition, you must also edit any formulas that reference incorrect field names or field types.

Graphing

Why can't I graph on all the formulas on my report?

This can be explained by Crystal Reports' two-pass report processing model. A *pass* refers to the process of reading records from the database and then manipulating them. There are two main passes in Crystal Reports:

- The first pass reads the data record by record from the database and creates basic summaries. All this is then stored into a temporary file.
- In the second pass, this temporary file is then read and more complex manipulations are performed on the saved data

Crystal Reports usually evaluates formulas during the first pass of the data. These formulas are known as recurring formulas. However, if the formula contains a second-pass function this forces Crystal Reports to evaluate the formula during the second pass instead.

In general, second pass functions are functions that require data from more than one record. Examples of second pass functions (also known as `WhilePrintingRecords` or print-time functions) are:

Next

Previous

NextIsNull

PreviousIsNull.

Crystal Reports evaluates graphs during the second pass. Since graphs and second pass formulas evaluate so close together, Crystal Reports cannot accurately create a graph on data returned by a second pass formula. As a result, second pass formulas are not listed as one of the available fields in the Chart Expert.

To learn more about Crystal Reports evaluation time, go to <http://support.crystaldecisions.com/docs> and search for SCR7_EvalTime.pdf.

I am having trouble creating or customizing a graph

For information on customizing charts, go to <http://support.crystaldecisions.com/docs>:

- If you are using version 6 or 7 of Crystal Reports, search for Gr6tutor.exe, which is a paper on *Graphing Tutorial & Using the PG Editor in Crystal Reports 6*.
- If you are using version 8 of Crystal Reports, search for SCR8_ChartAnalyzer.pdf, which is a paper on *Customizing Charts with the Chart Analyzer*.

Miscellaneous

What is an invalid TLV or TSLV record?

Unfortunately, if you get this message when trying to open a report, it means the report has become corrupted, so you must restore a back-up copy of the report.

To see a detailed explanation of what could have caused this error message, go to <http://support.crystaldecisions.com/kbase> and search for Knowledge Base article ID C2005670.

Finding other resources

If you have any further report design questions with the Crystal Reports Designer that have not been covered by this document, visit our website.

To view Knowledge Base articles, go to <http://support.crystaldecisions.com/kbase>.

To view guides, documents, and other FAQs, go to <http://support.crystaldecisions.com/docs>.

To download updates, sample databases, sample reports and more, go to <http://support.crystaldecisions.com/downloads>.

To join in our online forums (not moderated) go to <http://support.crystaldecisions.net/forums/>.

Contacting Crystal Decisions for Technical Support

We recommend that you refer to the product documentation and that you visit our Technical Support web site for more resources.

Self-serve Support:

<http://support.crystaldecisions.com/>

Email Support:

<http://support.crystaldecisions.com/support/answers.asp>

Telephone Support:

<http://www.crystaldecisions.com/contact/support.asp>