

Crystal Reports

Cross-Tab Capabilities & Limitations in Crystal Reports (CR) 6.x

Overview

This document provides an overview of cross-tab capabilities and limitations in Crystal Reports (CR) 6.

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Introduction

A cross-tab is an object that summarizes data and then presents the summaries in a compact row and column format that makes it easy to make comparisons and identify trends. A cross-tab is made up of three elements:

Rows

The rows in a cross-tab run horizontally (from side-to-side).

Columns

The columns in a cross-tab run vertically (up and down).

Summary fields

The summary fields are found at the intersection of rows and columns the value found at each intersection represents a summary (sum, count, etc.) of those records that meet the row and the column criteria.

NOTE	If using text fields for your summary field then Crystal Reports (CR) will show a count unless you change the summary operation to either Maximum or Minimum.
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Cross-Tab Also Includes Several Totals

- At the end of each row is a total for that row.
- At the bottom of each column is a total for that column.
- At the intersection of the Totals column and the Totals row is a grand total.

NOTE	Format the total fields to suppress and minimize field height/width to remove totals.
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Cross-Tab Capabilities and Limitations

1. You can create Cross-Tabs using the Cross-Tab Expert or Insert as a Cross-Tab object.
2. Cross-Tabs that are inserted into a Group Header/Footer section will only reflect data for that group.
3. You can include multiple summary fields or calculations in your Cross-Tab.
4. You can use first pass formulas that are defined elsewhere on the report in Cross-Tabs (cannot use WhilePrintingRecords, Previous or Next functions).
5. You can insert as many Cross-Tab objects as you need and also can insert into Subreports.
6. Column headings will repeat when printing on multiple pages.

NOTE	Row headings will NOT repeat for Cross-Tab reports that print wider than a single page.
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The CR Cross-Tab report takes only a few minutes to create and generates a very useful summarized report but has many limitations. The most common

issues regarding the Cross-Tab report is the fact that Row Headings do not repeat for reports which print wider than one page and also the issue where the Cross-Tab is viewed as an object with in CR and could possibly split the report in the middle of columns or fields when printing on more than a page in width.

The following suggestions and workarounds help to resolve Cross-Tab printing issues:

1. Print in landscape orientation using small font to keep the report only one page in width.
2. Reverse the Row and Column heading if this will keep the report to one page in width.
3. Use selection criteria that would limit the report to one page in width but show incorrect Row totals.
4. Create a custom report (simulated Cross-Tab) and design the report to display as a Cross-Tab.

NOTE	You will need to know the column headings prior to designing a simulated Cross-Tab report.
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How to Create a Simulated Cross-Tab Report

1. Create a new *custom* or *standard* report.
2. Insert Group on a database field (select field which you want as Row Heading).
3. Create formulas for each column and insert into Detail section (if you would like your report to show Columns for each Year and show Amount):
Example: If Year({date.field})=1995 then {amount}
4. Insert CR summary on formulas such as subtotals or counts.
5. Move Group name to Group Footer and suppress Group Header and Details.
6. Format fields to show borders or insert lines/boxes for grid lines.

Date Fields as Row/Column Headings

Dates will show as text for headings and will be sorted in ascending order as April will show first rather than January. There are two options to resolve this issue, the first option would be to create a formula which would look like this: ToText({date.field},”yy/MM/dd”) and select this formula for the heading in your Cross-Tab (refer to On-Line Help for more info re ToText function). The other option would be to adjust the settings in File | Options | Fields | Dates as CR will display the default date settings and sort in true date order (set the Day and Year options as None and modify the Month option to show as “March” if you would like to show just the months). When sorting on date fields that are defined as string type, ensure that the date shows as Year/Month/Day and this will still sort in correct date order.

Example: “1997/12/31”

Numeric Fields as Row/Column Headings

Numbers will show as text for headings and will be sorted in ascending order with decimals and thousand separators. There are two options to resolve this issue, the first option would be to remove the decimals and thousands separator by creating a formula which would look like this: `ToText({number.field},0,"")` and select this formula for the heading in your Cross-Tab (refer to On-Line Help for more info re ToText function). The other option would be to adjust the settings in File | Options | Fields | Number | Number as CR will display the default Number settings, ensure to uncheck the Thousands Separator option and modify the Decimal option to equal 1 (for no decimals).

NOTE	For currency fields as headings use the ToNumber function to remove currency symbol. Example: <code>ToText(ToNumber({currency.field}),0,"")</code>
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Row/Column Headings to Display in Specified Order

If you would like for your Cross-Tab headings to be display in a specific order such as: Sunday, Monday, Tuesday, etc., rather than alphabetically, create a formula which will look this:

```

If {table.fieldname} = "Sunday" Then "01    Sunday"
Else If {table.fieldname} = "Monday" Then "02    Monday"
Else If {table.fieldname} = "Tuesday" Then "03    Tuesday"
Else If {table.fieldname} = "Wednesday" Then "04    Wednesday"
Else If {table.fieldname} = "Thursday" Then "05    Thursday"
Else If {table.fieldname} = "Friday" Then "06    Friday"
Else If {table.fieldname} = "Saturday" Then "07    Saturday"

```

In other words, if you change the string to begin with a number, CR will sort the formula alpha-numerically, according to your needs.

Calculate the total number of digits and by the number of characters in the longest heading name, assuming your font does not kern (adjust itself according to character width).

NOTE	The shortest heading should have the most number of spaces.
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The next step is to right click on the formula field in the design screen, and format to align to right. Then select the formula field again, and drag the left side toward the right enough to cover the digits and spaces.

Finding More Information

Information regarding the creation of Cross-Tabs can be found by selecting the On-Line Help feature in Crystal Reports and searching on “Tutorial” | “How to Create a Cross-Tab ...” or refer to the chapter on Cross-Tab Objects in the Crystal Reports User’s Guide.

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>