

Crystal Reports

Displaying PercentOfCount and/or PercentOfDistinctCount summaries in a cross-tab

Overview

In a Crystal Reports (CR) 9 cross-tab, the summary options, **PercentOfDistinctCount** and **PercentOfCount**, do not display data correctly. Any numbers after the decimal point are rounded down to zero.

This document will explain why this decimal precision issue occurs and will provide workarounds to display the data correctly.

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Introduction

In CR 9, there is a limitation with displaying **PercentOfCount** or **PercentOfDistinctCount** summary values in a cross-tab. The decimal portion of the number is rounded down to zero and therefore displays what appears to be an incorrect value.

This document will:

- explain the reason for this issue.
- provide a workaround to display a **PercentOfDistinctCount** in a cross-tab with correct decimal precision.
- provide a workaround to display a **PercentOfCount** in a cross-tab with correct decimal precision.

Why do incorrect values appear?

This is a known issue and has been assigned track ID ADAPT00104013.

Inserting a field into the **Summarized Fields** box of a cross-tab, and choosing to display as a **PercentOfCount** summary or **PercentOfDistinctCount** summary will display the values without decimal precision. For example, if the value should be displayed as 35.64%, the cross-tab will display the value as 35.00%.

This issue has been addressed in a hot fix. The solution to fix this problem is to display zero decimal places. For example, if the value should be displayed as 35.64%, the value will instead be displayed with no decimals as 35%.

Why does this solution not address the underlying problem? The reason the exact decimal precision is not fixed is because CR stores **PercentOfCount** and **PercentOfDistinctCount** summaries as integers. To display the decimal portions of the value, the data-type would need to be changed from an integer to a floating point. If such an architectural change were made to CR and released as a product update, reports created and saved using a build of CR with this update applied could become corrupted if opened using a build of CR without the update applied. This would render these reports unusable and corrupted reports would need to be recreated. Therefore, it was decided not to fix the underlying issue but to round the numbers with zero decimal places instead.

There are workarounds to display the exact decimal precision in a cross-tab.

Displaying PercentOfCount/PercentOfDistinctCount Summaries

Both of the following examples:

- use the Access sample database, Xtreme.mdb, which is installed with Crystal Reports.
- are based on the *Customer* table.
- have the *Customer.Country* field filtered to show only **Australia**.

PercentOfDistinctCount Summaries

To correctly display a **PercentOfDistinctCount** summary, summarize a formula field that displays the **PercentOfDistinctCount** rather than summarizing a database field in the cross-tab

To make this formula, the report needs to be grouped on the same fields as the cross-tab's row and column fields.

Note:	<p>If it is not possible to modify the grouping of the main report, the cross-tab can be displayed in a subreport, which is set up with the appropriate grouping and is only used to display the cross-tab.</p> <p>However, cross-tabs in subreports do not display virtual pages. If the cross-tab grows larger than the width of the page, data to the right of the page width will not be displayed. There is no workaround for this issue.</p> <p>For more information on Subreports refer to CR's White Paper; scr_subreports.pdf at: http://support.crystaldecisions.com/docs</p>
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Set up the report

The report must be grouped on the same fields used in the cross-tab. For example, if the cross-tab needs to display the **PercentOfDistinctCount** of the Customer ID field with a Country row and Region column, perform the following steps:

1. The first group is based on the cross-tab's 'row' field. On the **Insert** menu, click **Group**. From the top drop-down box select *Customer.Country*. Click **OK**.
2. The second group is based on the cross-tab's 'column' field. On the **Insert** menu, click **Group**. From the top drop-down box select *Customer.Region*. Click **OK**.
3. Insert the field that requires the **PercentOfDistinctCount** summary to your details section. On the **View** menu click **Field Explorer**. Expand **Database Fields** then expand **Customer**. Add the *Customer.Customer ID* field to the **Details** section.
4. Right-click the *Customer.Customer ID* field and click **Insert > Summary**. From the **Calculate this summary** drop-down box click **Distinct count**. From the **Summary location** drop-down box click **Group #2: Customer.Region**. Select the **Show as a percentage of** check box and click **Group #1: DistinctCount of Customer ID**.

Create a formula

The next step is to create a formula, which displays the **PercentOfDistinctCount**.

1. Create a formula and name it *Distinct_Count*.
2. From the **Report Fields** box double-click the Summary field created in the previous steps. The formula will appear as:

PercentOfDistinctCount ({Customer.Customer ID}, {Customer.Region}, {Customer.Country})

3. Click the **Save** button then click the **Close** button.

Create a Cross-tab

The final step is to create a cross-tab to use the formula created in the previous steps as the summarized field.

1. On the **Insert** menu click **Cross-Tab**. The **Cross-tab Expert** dialog box will appear.
2. From the **Available Fields** box move *Customer.Country* to the **Rows** box.
3. From the **Available Fields** box move *Customer.Region* to the **Columns** box.
4. From the **Available Fields** box move the *@Distinct_Count* formula, created in the previous steps, to the Summarized Fields box.
5. Click the *@Distinct_Count* formula in the **Summarized Fields** box then click the **Change Summary** button. From the **Calculate this summary** drop-down box click **Maximum**.
6. Click the **OK** button to close the **Cross-Tab Expert** dialog box then insert the cross-tab in the **Report Header** section.
7. Suppress every other section in the report.

Now when the report is previewed, the **PercentOfDistinctCount** summary in the cross-tab will appear with correct decimal accuracy.

PercentOfCount Summaries

To correctly display a **PercentOfCount** summary, summarize a formula field that displays a value of 1 in the cross-tab instead of summarizing a database field. When this formula is summed it will display the same total as a count of the field would return. Unlike a **PercentOfCount** summary, a **PercentOfSum** summary will display correct decimal precision.

Unlike the previous example, the report does not need to be set up with the same grouping as the cross-tab in order to display the correct value.

Create a formula

The first step is to create a formula, which outputs a value of 1.

1. Create a formula and name it Count. Enter the following:

```
WhileReadingRecords;
```

```
1
```

2. Click the **Save** button then click the **Close** button.

Create a Cross-tab

The final step is to create a cross-tab that uses the formula created in the previous steps as the summarized field.

1. On the **Insert** menu click **Cross-Tab**. The **Cross-tab Expert** will appear.
2. From the **Available Fields** box move *Customer.Country* to the **Rows** box.
3. From the **Available Fields** box move *Customer.Region* to the **Columns** box.
4. Add the *@Count* formula created in the previous steps to the **Summarized fields** box.
5. Click the *@Count* formula in the **Summarized Fields** box then click the **Change Summary** button. The **Edit Summary** dialog box will appear.
6. From the **Calculate this summary** drop-down box click **Sum**.
7. Check the **Show as a percentage of** check box and, from the drop-down box click **Total: Sum of Customer ID**.
8. Select the **Column** radio button.
9. Click the **OK** button to close the **Edit Summary** dialog box then click the **OK** button to close the **Cross-Tab Expert** dialog box.
10. Insert the cross-tab in the **Report Header** section.

Now, when the report is previewed the **PercentOfCount** summary in the cross-tab will appear with correct decimal accuracy.

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>