

# Crystal Reports Designer Version 10

## Exporting to Microsoft Excel

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### Overview

This document is intended to assist you in creating or modifying a report in Crystal Reports Designer, version 10, that exports successfully to Microsoft Excel.

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# Introduction

This document has three main sections.

- The first section contains design tips for those who have not yet started (or have just begun) to create a report for export to Excel.
- The second section describes the options of the two Excel exporting formats.
- The third section lists troubleshooting tips for those who have already tried exporting to Excel and were not satisfied with the results.

## Report Design Tips for Exporting to Excel

### Background

Crystal Reports uses an *insertion point interface*. When you create a report, you are placing a series of objects on a page. These objects can be placed anywhere on the page. When the object is placed on the report, an XY coordinate is assigned to it. This XY coordinate is a measurement from the top left corner of the page.

Microsoft Excel uses a *line-by-line interface*. A line-by-line interface does not allow placement of objects between the lines.

Therefore, when you export a report, report objects that have been placed between lines are moved to the nearest line by the export DLL. When you select the report options outlined below, your export to Excel will maintain the column and row setup of a worksheet.

Test how your report will export by placing a few fields on the report and then exporting it to Excel. When you are satisfied with the results, add the remaining fields to your report. Testing the report as it is created allows you to make the necessary design adjustments to the report fields if they are not aligned when exported to Excel.

To achieve best results when exporting to Excel, format the report as closely to an Excel spreadsheet as possible.

### Setting Report Options Before You Begin

When you export a report from Crystal Reports (RPT) format into Microsoft Excel (XLS) format, the report's format may change. To minimize these changes, select the following report options.

Select the report options before you begin building the report.

1. From the **File** menu, select **Options**.
2. From the **Layout** tab, select the following check boxes:

#### Design View Options

- Select Rulers

- Select Guidelines
- Select Grid

#### Preview Options

- Select Rulers
- Select Guidelines
- Select Grid

#### Grid Options

- Select Snap to Grid
- Clear Free Form Placement

## Placing Objects on the Report

When you design a report to export to Excel, the report should appear similar to the layout of a worksheet. Do not allow the report objects to overlap. Each object should represent a cell on an Excel worksheet.

## Minimizing Section Height

To reduce the occurrence of blank rows in the exported Excel worksheet, minimize the height of each section using the **Fit Section** option.

#### Steps to Fit Section

1. In **Design** view, right-click the appropriate section on the gray margin to the left of the screen.
2. Click **Fit Section**.

**Fit Section** resizes the section's bottom border up to the object that has been placed at the lowest point in that section. For this reason you should place fields at the top of the section to minimize space between the tops of the fields and the top of the section.

<b>NOTE</b>	If extra space still appears below the object after you use <b>Fit Section</b> , resize any objects that are more than one line in height. Also, verify that there are no empty text objects at the bottom of the section. Use <b>Fit Section</b> again to resize the section's bottom border.
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## Using Guidelines to Align Fields

How you place database fields on the report affects the layout of the Excel worksheet.

Following the steps below minimizes the layout differences between the original report in the Report Designer and the exported worksheet:

1. Create a guideline.
  - To align all the fields in a row, click the vertical ruler (to the left).
  - To align all the fields in a column, click the horizontal ruler (at the top).
2. Snap all the report objects to these guidelines.

- Click an object, drag it away from the guideline, and then drag it slowly back to the guideline.
- When the object gets close to the guideline it snaps to the line and a red mark will appear at the corner of the object.
- To move the object, click and drag the triangular guideline anchors on the appropriate ruler.

## Sizing fields to have the Same Height and Width

All the fields or text objects that are to appear in the same row in Excel must be the same height in the Report Designer. Likewise, all the fields or text objects appearing in the same column in Excel must have the same width in the Report Designer.

Minimizing the height of an object and the space between objects without allowing the fields to overlap reduces occurrences of blank columns and rows in the exported Excel worksheet.

To set the size of an object in report design, right-click the object and select **Object Size and Position**.

- Size all the fields and text objects in the same column so they are just wide enough and just high enough to accommodate the tallest and longest value in the fields or text objects.
- Base the width of objects on the horizontal length of the data.
- Use the horizontal and vertical rulers as a reference when specifying height, width, and XY coordinates.

## Formatting Fields and Objects Consistently

Format fields and objects in the same column with the same text justification; that is, right-aligned, left-aligned, center-aligned or fully justified.

1. Select all the fields and objects in a column.

<b>TIP</b>	Click and drag a selection around multiple fields and objects.
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2. Right-click any of the selected items, then click **Format Objects**. The Format Editor dialog box appears.
3. From the **Common** tab, select an alignment in the Horizontal Alignment box.
4. Font face, style and size can also affect the width of data on the report, and consequently can affect the appearance of the exported worksheet. It is a good idea to format fonts consistently.
5. In the Format Editor dialogue box, click the **Font** tab.
6. Select a font, style and size in the corresponding boxes for all the selected fields and objects.
7. Click **OK** to return to the report.

Now when you preview the reports, all the fields and text objects display a consistent format.

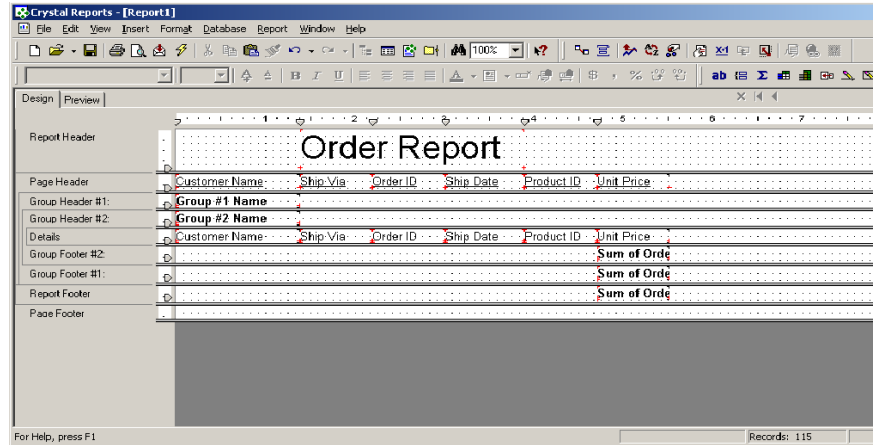
# Examples of Good and Poor Exports

The following screen shots show the different results between exporting a report designed for export to Excel and one that was not.

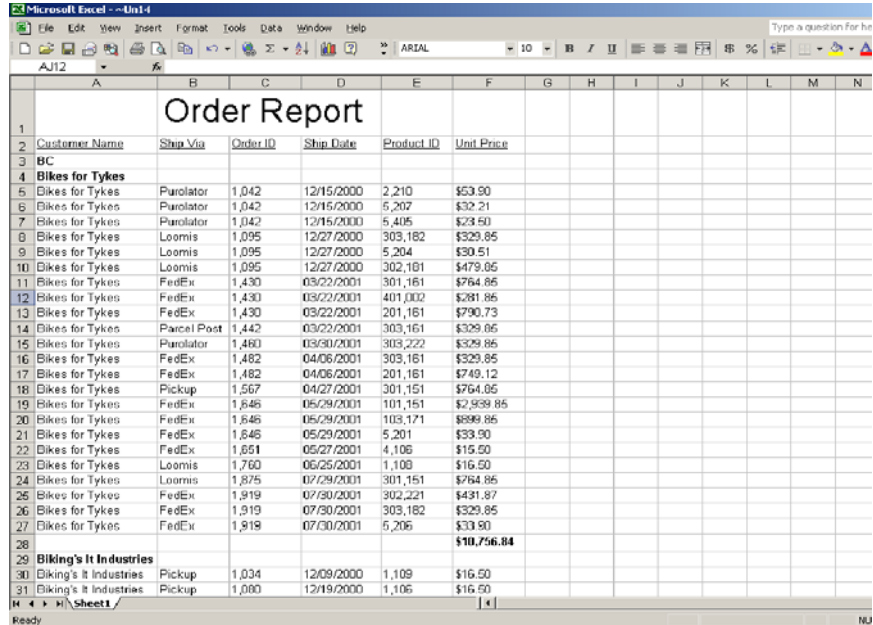
## Example A: Good Export

This example displays a report that has been designed with the techniques and suggestions outlined in this document, and the exported result in Excel.

### From Crystal Reports Format



### To Excel Format



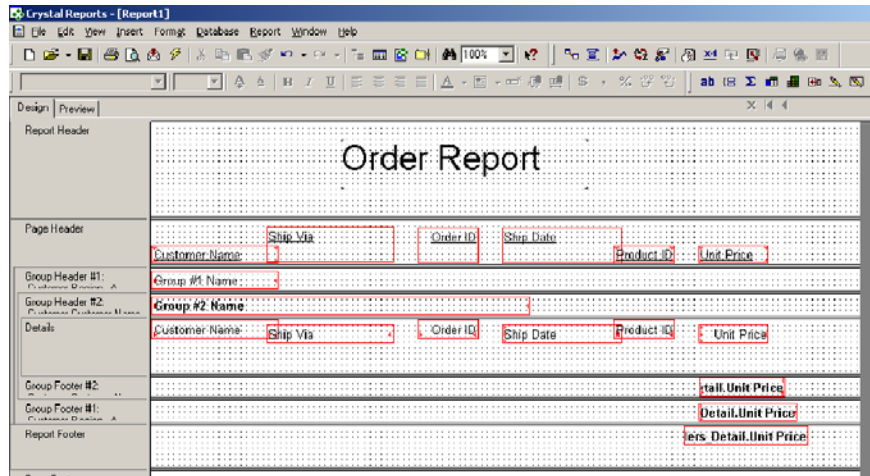
- The report format uses a grid and guidelines to align objects, and all the objects in each column have a uniform width and alignment. This ensures that columns are aligned and cells have the same alignment in the Excel worksheet.
- There is no spacing between columns. This ensures that no extra columns appear in the Excel worksheet.

- All objects in each row have the same height. This ensures that no extra rows appear in the Excel worksheet.

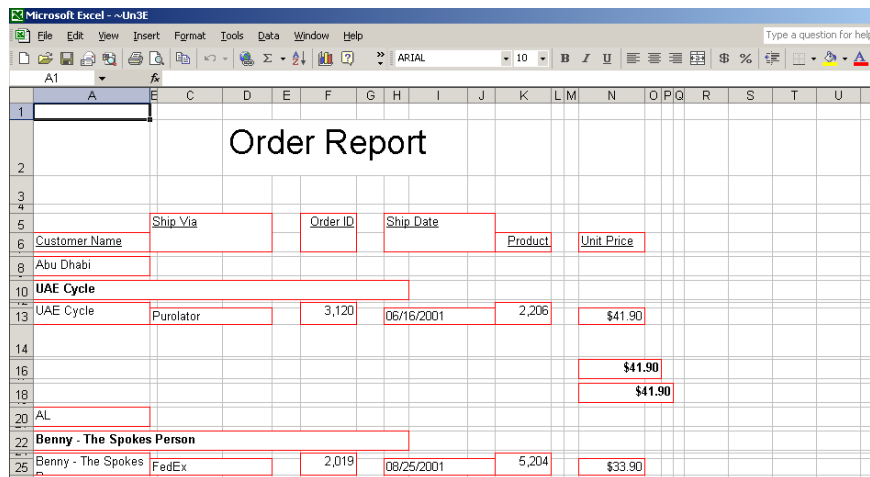
### Example B: Poor Export

This example displays a report that has not been designed with the techniques and suggestions outlined in this document, and the exported result in Excel.

#### From Crystal Reports Format



#### To Exported Excel Format



- The report format does not use a grid and guidelines to align objects, and the objects in each column do not have the same width and alignment. Therefore, columns are not aligned and cells do not have the same alignment in the Excel worksheet.
- There is extra space between columns. Therefore, extra columns appear in the Excel worksheet.
- Report objects do not have the same height in each row. Therefore, extra rows appear in the Excel worksheet.

## Selecting an Excel Exporting Format

There are two Excel exporting formats in Crystal Reports Version 10: MS Excel 97-2000 and MS Excel 97-2000 (data only).

- **MS Excel 97 – 2000**

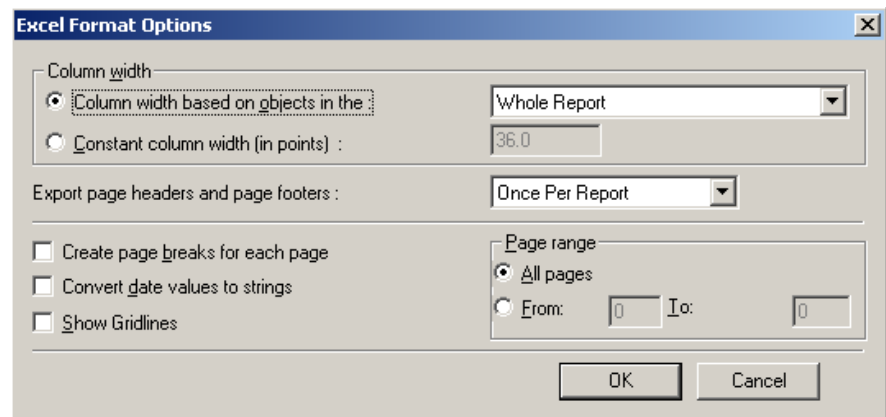
This format produces a better WYSIWYG (What You See Is What You Get) appearance. The exported file will appear more like a Crystal report than if exported to Excel 97-2000 (Data only) format.

- **MS Excel 97 – 2000 (Data only)**

This format disregards the report's appearance and places the objects as best as it can in a column and row format. If you want to edit the exported Excel spreadsheet, use this format. This format replaces the Excel Extended format found in versions previous to CR 9.

### MS Excel 97-2000 Export Options

When exporting to Excel 97-2000 in CR 10, the following dialog box with these default settings appears with export options.



- **Column width**

Here you can define the width of the cell in the exported Excel spreadsheet. **Constant column width (in points)** allows you to pick a constant width. **Column width based on objects in the :** bases the width on objects in either the whole report (default setting) or in any of the report sections.

If you use the "Column widths based on objects in the :" option, you should base the width on the section that has the most critical data, often the Details section.

- **Export Page Header and Page Footer**

Here you can define whether objects in the Page Header and Page Footer sections are exported and if so whether they will appear once above or below each column or appear on each page by selecting **None**, **Once Per Report**, or **On Each Page**.

- **Create page breaks for each page**

Select this option if you want to print from Excel and have the same page breaks as in Crystal Reports. You won't see any difference in the normal Excel view if this is selected, but you will when you click the **File > Print Preview** in Excel and when printing from Excel.

- **Convert date values to strings**

Select this option to change a Date or DateTime field in Crystal Reports to a General format cell in Excel. If this is not selected, the cell will have a Custom format in Excel.

- **Show Gridlines**

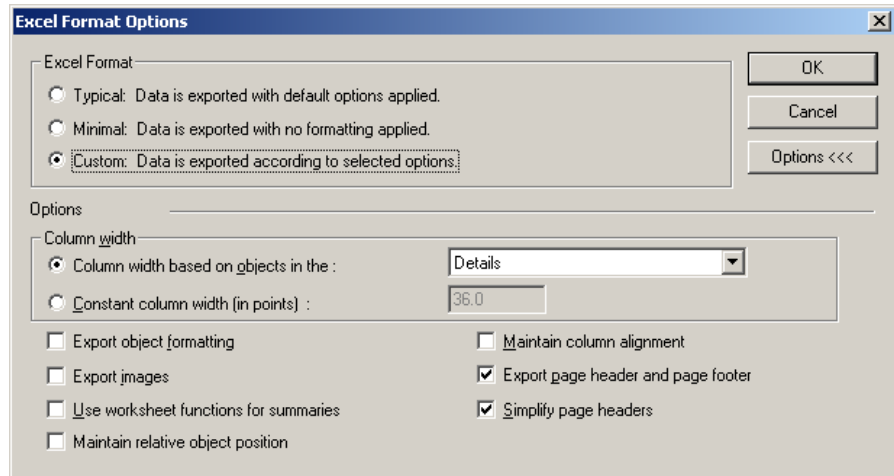
Select this option if you want the Excel gridlines between cells to be visible upon export.

- **Page Range**

Click either **All Pages** or specify a page range by clicking the **From** option button.

## MS Excel 97-2000 (Data only) Export Options

When exporting to Excel 97-2000 in CR 10, the following dialog box appears with export options:



### Typical

The report will be exported using the default settings as seen in the picture above with the addition of the “Use worksheet functions for summaries” and “Maintain column alignment” options. This option allows some editing of the spreadsheet while preserving some of the report format.

- **Minimal**

*Data is exported with no formatting applied.* Choosing “Minimal” automatically selects “Use worksheet functions for summaries” from the Options area and exports using only that option.

- **Custom**

Allows any combination of the following options to be selected.

- **Column width**

[See MS Excel 97-2000 options](#)



- **Export object formatting**

If this check box is selected then formatting options, including Bold, Italics and Highlighting will be passed to Excel when exported.

<b>NOTE</b>	For more information on which formatting options are supported when exporting to Excel, refer to the document cr10_exportlimitations.zip at: <a href="http://technicalsupport.businessobjects.com">http://technicalsupport.businessobjects.com</a>
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- **Export images**

Select this check box if you want images such as pictures and OLE Objects (including Maps & Graphs) to export to Excel.

- **Use worksheet functions for summaries**

Select this check box to make Excel functions perform Summary calculations. This is not applicable to running totals.

- **Maintain relative object position**

Choose this option to approximate the position of report objects in your report. For example, if your report fields are placed two inches from the left margin of your Crystal report, the exported worksheet may contain several empty columns in lieu of the margin space; the data appears after the empty columns. Leaving this option disabled will place all report objects of each section in a single row. For example, all report objects in the Report Header will appear in one row at the beginning of the spreadsheet, and all report objects in **Details** will appear in another row (for each record), and so on.

- **Maintain column alignment**

Select this check box to keep related fields in different sections in the same column when exporting to Excel.

For example, a report has a Company Name field to the left of a Sales field in the **Details** section. A Grand Total of the Sales field appears directly below the Sales field in the Report Footer section. If the **Maintain column alignment** check box is cleared, the exported Excel file will show the Grand Total of the Sales field under the Company Name field. With this box selected, the Grand Total of the Sales field appears correctly under the Sales field in Excel.

- **Export Page Header and Page Footer**

Select this check box to export objects in the Page Header and Page Footer.

- **Simplify page headers**

If this check box is selected then only objects that are aligned with the bottom of the Page Header section will be exported.

# Troubleshooting Issues with Reports Exported to Excel

This section lists common issues that are encountered when exporting to Excel format, and steps to troubleshoot the issue.

## Blank Rows Appear in Excel

There are three main causes of blank rows in a worksheet.

### A) Fields or text objects were placed in the same section but were not horizontally aligned using guidelines or the snap-to-grid option.

To prevent blank rows, use guidelines to align fields:

- In the **Design** view of the report, click on the vertical ruler to create a guideline.
- Click the field that needs to be aligned, and drag it to the guideline. The field should snap to the guideline and its corners should be highlighted in red, indicating that the field is attached to the guideline.
- If the corners of the field do not turn red, repeat the above steps until the field is snapped to the guideline.
- Set the object's size and position by right-clicking the field, selecting **Object Size and Position** and then setting the XY coordinates.

<b>NOTE</b>	Use the horizontal and vertical rulers as a reference when specifying height, width, and XY coordinates.
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When you export the report to Excel there will be no additional blank rows in the section.

### B) Fields of different heights were placed in the same section.

To prevent blank rows, resize all the fields in the section to the same height:

1. In the **Design** view of the report, hold down the **Shift** key while clicking each field, until all the fields (and any other objects) in the section are highlighted.
2. Right-click any of the fields, click **Size**, and select **Same Height**.

Export the report to Excel and there will be no additional blank rows in the section.

### C) Sections are formatted with complex conditional suppression formulas.

To prevent blank rows from conditional suppression formulas:

- Do not use multiple "If-Then-Else" statements in conditional suppression formulas.

For example:

```
if not onfirstrecord then true
else if {Customer.Country} <> "USA" then
  (if {Customer.City} startswith "b" then true else
  false)
```

```

else if {Customer.Country} = "USA" then
  (if sum({Customer.Last Year's
Sales},{Customer.Region}) > 678 then false else
true)
else false

```

- Do not use shared variables and complex formulas that occur during the evaluation of WhilePrintingRecords (also known as 2<sup>nd</sup> pass formulas).

<b>NOTE</b>	<p>WhilePrintingRecords formulas are any formulas that use a function that requires data from more than one record. Examples of these are Next, Previous, and any summary function.</p> <p>Such formulas can fail to evaluate during export and can therefore create inconsistent results.</p> <p><b>For more information on formula evaluation times, please select (F1) within Crystal, and search for keywords "evaluation time functions."</b></p>
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## Fields Appear in Different Rows

There are two main reasons for fields to appear in different rows in Excel format than in the Report Designer.

### A) Fields in the same section are not vertically aligned

To prevent fields from appearing in different rows, vertically align fields with guidelines:

1. In the **Design** view, click the vertical ruler to create a horizontal guideline.
2. Click one of the fields in the section, and drag it to the horizontal guideline. The field should snap to the guideline. When the corners are highlighted in red, this indicates the field is snapped to the guideline.
3. Repeat step 2 until all the fields in the section are snapped to the horizontal guideline.

Export the report to Excel and all the fields in the section will appear in the same row.

### B) Fields in the same section do not have the same height

To prevent fields from appearing in different rows, ensure that all the fields in the same section have the same height:

1. Select all the fields in the section by holding down the **Shift** key while clicking each field, until all the fields are highlighted.
2. Right-click any of the fields, select **Size**, and then select **Same Height**.

Export the report to Excel and all the fields in the section will appear in the same row.

## Fields or Sections do not Conditionally Suppress Correctly

Complex conditional suppression formulas may not evaluate correctly during the export process and therefore can be unreliable.

To minimize the chances of your conditional suppression formula failing to evaluate, follow these tips:

1. Avoid using multiple conditional suppression formulas (that is, formulas that use multiple “If-Then-Else” statements).
2. Avoid using shared variables and complex formulas that occur during the WhilePrintingRecords evaluation time.
3. Avoid using functions that refer to page numbers, such as PageNumber, TotalPageCount, and Page N of M. References to page numbers cannot be converted when exporting to Excel. This occurs because Excel does not paginate. Instead, Excel places all the data in one large worksheet.

## Blank Columns Appear

There are five main causes for extra blank columns to appear in a worksheet.

### A) The Report is formatted with white space between fields.

Export to Excel 97-2000 format is “What You See Is What You Get” (WYSIWYG) so if there are spaces between the fields in the report Excel will try to format that space with a blank column.

To eliminate the blank columns:

1. Go to **File > Options > Layout > Grid Option:** and change the Grid Size to 0.050.
  2. Show the grid in the Design tab and zoom in to 200%.
  3. Place fields so that there is only 1 grid point between fields and the left page border.
- ### B) Fields in the same column are not aligned with guidelines or snap-to-grid

To prevent blank columns, horizontally align fields with guidelines:

1. In **Design** view, click the vertical ruler to create a vertical guideline.
2. Click one of the fields in the section, and drag it to the vertical guideline. The field should snap to the guideline. When the corners are highlighted in red, this indicates the field is snapped to the guideline.
3. Repeat step 2 until all the fields in the section are snapped to the vertical guideline.
4. Set the object’s size and position by right-clicking the field, selecting **Object Size and Position** and then setting the XY coordinates.

Use the horizontal and vertical rulers as a reference when specifying height, width, and XY coordinates.

Export the report to Excel and all the fields in the section will appear in the same column. Extra blank columns will not appear.

### C) Objects in the same column have different widths

To ensure that all the objects in the same column have the same width:

1. Select all the objects (such as database fields, column header text objects, and summaries or subtotals) in the column by holding down the Shift key while clicking each field, until all the fields are highlighted.
2. Right-click any one of the fields, click **Size**, and then select **Same Width**. This widens all the fields in the column until they are the same width as the widest object in the column.

Export the report to Excel and no extra blank columns will appear in the worksheet.

<b>NOTE</b>	Fields that are formatted wider than the actual width of the data can cause blank columns. Make sure the field width is just wide enough to display the longest data value. See <b>Column width</b> on page 7.
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#### **D) Fields and objects in the same column do not have the same text alignment**

For example, the column heading text object is aligned to the right, while the database field is aligned to center.

To ensure all objects have the same alignment:

1. Select all the objects (such as database fields, column header text objects, and summary or subtotals) in the column by holding down the **Shift** key while clicking each field, until all the fields are highlighted.
2. Right-click any of the fields, then click **Format Objects**. The Format Editor dialog box appears.
3. From the **Common** tab, specify an alignment in the *Horizontal Alignment* box.
4. Click **OK** to return to the report. All the objects in the same column now have the same alignment.

Export the report to Excel and there will be no extra blank columns in the worksheet.

#### **E) Fields or objects with different font size and formatting (bold, italics) can cause blank columns**

To ensure the same font formatting for all objects in a column:

1. Select all the objects (such as database fields, column header text objects, and summary or subtotals) in the column by holding down the **Shift** key while clicking each field, until all the fields are highlighted.
2. Right-click any of the fields, then click **Format Objects**. The Format Editor dialog box opens.
3. From the **Font** tab, specify a size and format for the object's font.
4. Click **OK** to return to the report.

Export the report to Excel and there will be no extra blank columns in the worksheet.

## Column Headers are not aligned with the Data

There are four main reasons for Column headers that are not aligned with the data in the exported worksheet:

### A) Fields or objects in the same column are not aligned using vertical guidelines or snap to grid

To prevent fields from appearing in different columns, vertically align fields with guidelines:

1. In Design view, click the horizontal ruler to create a vertical guideline.
2. Click one of the fields in the section, and drag it to the vertical guideline. The field should snap to the guideline. When the corners are highlighted in red, this indicates the field is snapped to the guideline.
3. Repeat step 2 until all the fields or objects in the section are snapped to the vertical guideline.
4. Set the object's size and position by right-clicking the field, selecting **Object Size and Position** and then setting the XY coordinates.

Use the horizontal and vertical rulers as a reference when specifying height, width, and XY coordinates.

Export the report to Excel and the column headers will align with the data.

### B) Fields that are not the same width are not aligned in the same column

To ensure all the objects in the same column have the same width:

1. Select all the objects (such as database fields, column header text objects, and summary or subtotals) in the column by holding down the **Shift** key while clicking each field, until all the fields are highlighted.
2. Right-click any of the fields, click **Size**, and select **Same Width**. This widens all the fields in the column until they are the same width as the widest object in the column.

Export the report to Excel and the column headers will align with the data.

<b>NOTE</b>	Fields that are formatted wider than the actual width of the data can cause blank columns. Ensure that the field width is just wide enough to display the longest data value.
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### C) Fields appearing in the same column should have the same text alignment (right align, left align or center align)

To ensure all objects have the same alignment:

1. Select all the objects (such as database fields, column header text objects, and summary or subtotals) in the column by holding down the **Shift** key while clicking each field, until all the fields are highlighted.
2. Right-click any of the fields, then click **Format Objects**. The Format Editor dialog box opens.
3. From the **Common** tab, specify an alignment in the *Horizontal Alignment* box.

Export the report to Excel and the column headers will align with the data.

#### D) Fields with different font size and formatting (bold, italics) can cause data to be misaligned

To ensure uniform font formatting for all objects in a column:

1. Select all the objects (such as database fields, column header text objects, and summary or subtotals) in the column by holding down the **Shift** key while clicking the fields, until all the fields are highlighted.
2. Right-click any of the fields, then click **Format Objects**. The Format Editor dialog box opens.
3. From the **Font** tab, specify a size and format for the object's font.
4. Click **OK** to return to the report.

Export the report to Excel and the column headers will align with the data.

#### Exported Date Fields Appear as 'XXXXXXX'

If using Office 97, install latest Service Release (SR) available from Microsoft.

#### Subreports and Cross-Tabs do not appear on the Same Row

This is by design, as the size of Cross-Tabs and Subreports is dynamic; therefore, a separate row is given to these objects so they can expand without interfering with the alignment of other fields.

<b>DISCLAIMER</b>	<p>The third party products discussed in this white paper were not fully tested in conjunction with Crystal Enterprise prior to its release. Officially supported Crystal Enterprise platforms are listed in the text file Platforms.txt found in the root folder of the Crystal Enterprise CD as well as in the Knowledge Base article c2009003 (search for this article number at <a href="http://support.businessobjects.com/search">http://support.businessobjects.com/search</a>), which is more current.</p> <p>The information in this document is provided as a courtesy to assist our customers with the configuration of our product in conjunction with these third party platforms.</p> <p>In the event issues arise with an unsupported configuration, there is no escalation support; however, they will be considered during the development of the next generation of our product.</p>
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## Finding More Information

For more information and resources, refer to the product documentation and visit the support area of the web site at: [www.businessobjects.com](http://www.businessobjects.com).

► [www.businessobjects.com](http://www.businessobjects.com)

The Business Objects product and technology are protected by US patent numbers 5,555,403; 6,247,008; 6,578,027; 6,490,593; and 6,289,352. The Business Objects logo, the Business Objects tagline, BusinessObjects, BusinessObjects Broadcast Agent, BusinessQuery, Crystal Analysis, Crystal Analysis Holos, Crystal Applications, Crystal Enterprise, Crystal Info, Crystal Reports, Rapid Mart, and WebIntelligence are trademarks or registered trademarks of Business Objects SA in the United States and/or other countries. Various product and service names referenced herein may be trademarks of Business Objects SA. All other company, product, or brand names mentioned herein, may be the trademarks of their respective owners. Specifications subject to change without notice. Not responsible for errors or omissions. Copyright © 2004 Business Objects SA. All rights reserved.