Conga™ composer®

Excel Templates

Release 8
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This template guide is an overview of how to use and customize Microsoft Excel templates with Conga Composer®.

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General Disclaimer

Conga Composer solutions depend on and leverage technology from a multitude of software and hardware vendors including but not limited to salesforce.com, Microsoft, Google, and the providers of various Internet browsers ("Third Party Technology"). Output from Conga Composer solutions can be impacted by these and numerous other factors beyond the control of Conga, including:

- Template design errors in Microsoft Word, Excel, PowerPoint templates, PDF Forms or Conga HTML email templates

- The nature and scope of data and/or images being retrieved for merging into templates

- Individual user's browser, network, ISP and/or hardware settings (see Conga Composer Installation and Administration Guide for additional details)

- The use of any encryption gateways or appliances that require any re-direct of Conga Composer traffic

- The availability and performance of the salesforce.com service and other software-as-a-service solutions such as eSignature, eCommerce and other AppExchange products, and periodic updates, enhancements or other changes to such services made by their respective vendors

- Salesforce.com security settings including User Profiles and Permissions, folder and object access and field-level security

- Internet performance, regional and even global outages

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508 Compliance

Conga Composer is an installable package from the Salesforce AppExchange, which integrates with an individual customer's existing implementation of Salesforce. When properly configured, Conga Composer will run within an existing Salesforce instance without the need to view, manipulate or configure the application outside of the Salesforce user interface.

The use of Conga solutions is entirely represented by standard Salesforce user interface components when properly configured. Therefore, customers seeking the 508 Compliance VPAT documentation are referred to Salesforce.

Upgrading from Conga Composer Release 7?

While Conga has made every effort to make Conga Composer Release 8 backwards compatible with Conga Composer Release 7, a small number of cases have been reported where the behavior of and/or output from Conga Composer Release 8 varies in content or appearance from Composer Release 7. It is the Customer's responsibility to thoroughly test all existing solutions with Composer Release 8 to ensure they perform as desired, and to make any necessary adjustments to templates, queries, reports or other components.

Purpose

Conga Composer lets you generate documents, spreadsheets and presentations by gathering data from salesforce.com and merging to a template. The resulting file(s) can be printed or emailed and you can log the actions you've taken in Salesforce.

Conga Composer solutions let you create individual documents by clicking a button from a record in Salesforce. This template guide will show you how to create Excel templates.

Before you get started

For this Guide we are making a couple of assumptions:

- You'll need to be able to build a Conga Composer button. You can find the details on how to do this in Conga Composer QuickStart 1 – Creating Your First Conga Composer Solution.
- You'll need to understand how to use the Conga Template Builder. You'll find details on the Conga Template Builder in the Conga Composer Configuration Guide.

Designing Microsoft Excel Merge Templates

Conga Composer can merge data into an Excel template. (**Excel templates only work with** Conga Composer, not Conga Mail Merge**.)**

What exactly is an Excel template? It's an Excel file (.xls or .xlsx) that contains one or more merge fields. In this chapter we'll examine how to create and edit Excel fields.

Conga Composer supports Excel templates saved in the Excel 2003 (".xls"), or Excel 2007/2010 (".xlsx") format. However, we recommend the Excel 2003 format (".xls") to ensure file format compatibility across a broad audience.

What Fields Are Available?

The Template Builder is an essential tool in the development of Conga Composer solutions. The Template Builder exposes the data retrieved by Conga Composer from the Master Object (and from any Salesforce Reports or Conga Queries referenced in the Conga Composer URL). You can then us these fields to build templates.
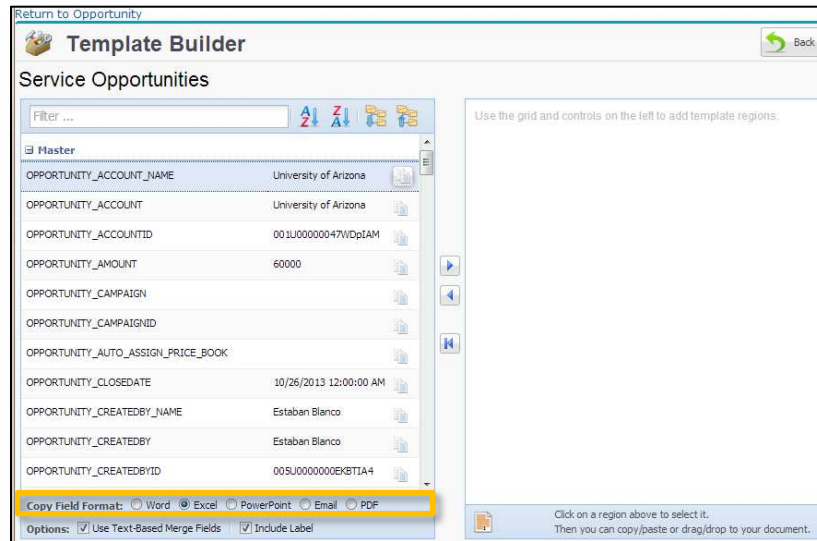
To learn more on how to use the Conga Template Builder, go the Conga Composer Configuration Guide.

The Template Builder supports multiple template types. By default it is set to create text-based merge fields for Microsoft Word. Select the Excel radio button to format the merge fields for Microsoft Excel. The format of an Excel merge field is:

&=Datasetname.Fieldname

Example: &=Master.ACCOUNT_NAME

Select the field and copy it to the clipboard. Paste that field into your template.

Now repeat for the following fields:

1. Add the following fields from the Master - Account dataset:
   - ACCOUNT_NAME
   - ACCOUNT_BILLINGADDRESS
   - ACCOUNT_ACCOUNTNUMBER,
   - ACCOUNT_PHONE

2. Then add the following field from the Master - Contact dataset:
   - CONTACT_FULLNAME

Format the fields to your liking, and save your template. You'll end up with something like this:


Tips and Tricks

The name of the dataset is case-sensitive. It must match the case as indicated on the Template Builder window. The Salesforce fieldname portion is not case-sensitive. In the image above the dataset name is Master with an upper case "M".

You may only use one merge field per cell. A merge fields can be used as part of a more complex formula but requires special adaptations in order to work with Conga Composer.   To use a merge field in a formula, put the merge field in a non-printing region (or a different sheet) and then refer to that cell in the formula. For more information please see FAQ: How can I use a merge field within a formula.

Merging Detail Data

Since you can retrieve multiple rows of data for each master object (e.g. opportunity line items for each opportunity), your Excel template will automatically expand to accommodate an unlimited number of detail rows.

Now we'll add line items related to an opportunity from the OppLineItems dataset.
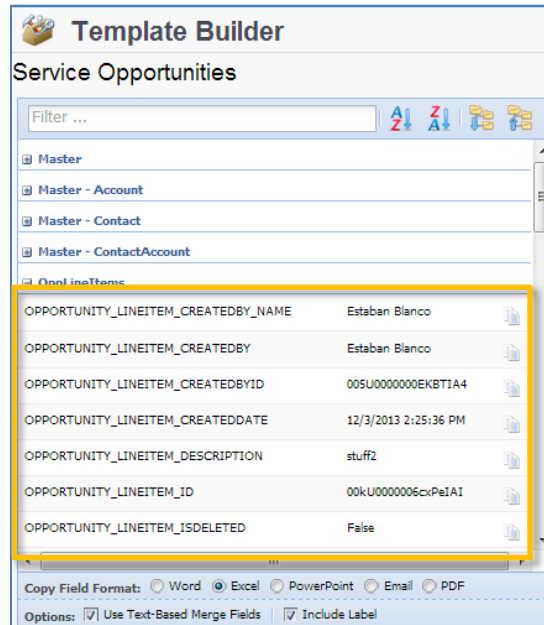
Copy and paste the following fields as shown below:

- Opportunity_Lineitem_ProductName
- Opportunity_LineItem_Qty
- Opportunity_Lineitem_UnitPrice
- Opportunity_LineItem_Total

When you copy the field from the Template Canvas, the Template Builder will automatically add the dataset name (in this case OppLineItems) to the field name.

Conga Composer will automatically insert rows to the spreadsheet to accommodate the number of rows in the dataset. If, for example, the first LineItem will be inserted into cell A23, then a new row will be inserted into A24 and so on.

Now save the template and run the solution.

The final output would look like this:

University of Arizona — INVOICE

888 N Euclid Hallis Center, Room 501 Tucson, AZ 85721 DATE: 12/4/2013
Phone: (520) 773-9050 — Customer ID: CD736025
Prepared by: Estaban Blanco — Valid Until: 1/3/2014

Rows Inserted Dynamically

Customer
Jane Grey
University of Arizona
888 N Euclid Hallis Center, Room 501 Tucson, AZ 85721 United States
(520) 773-9050

Product Name	Quantity	Unit Price	TOTAL
GenWatt Diesel 1000kW	12	100000	$ 1,200,000.00
GenWatt Diesel 10kW	2	5000	$ 10,000.00
GenWatt Diesel 200kW	2	25000	$ 50,000.00
SLA: Platinum	1	40000	$ 40,000.00
SLA: Silver	1	20000	$ 20,000.00
	TOTAL Due		$ 1,320,000.00

TERMS AND CONDITIONS

Refine Merge Fields with Parameters

You can tune Conga Composer's behavior when merging to Excel with *field parameters*. Each of the following parameters may be appended to the end of a merge field within parentheses, separating each with a comma.

PARAMETER	DESCRIPTION
Numeric	Converts text data to numeric data, if possible. After converting to numeric, you may apply numeric formatting to the field. **Note:** Since ReportData columns are retrieved as text values, this parameter can be particularly useful in converting a ReportData column value from text to numeric **Example:** &=ReportData.AMOUNT(Numeric)
Horizontal	Writes data left-to-right, instead of top-to-bottom. **Note:** Applies to datasets with multiple rows of data (reports, queries, OppLineItems, QuoteLineItems) **Example:** &=ReportData.CONTACT_LASTNAME(Horizontal)
Skip:n	Skip *n* number of rows for each row of data. **Example:** &=OppLineItems.OPPORTUNITY_LINEITEM_PRODUCTNAME(Skip:1)
Noadd	Do not add extra rows (or columns) to fit data, i.e., detail data is written to cells without adding new rows (or columns) during the merge process **Example:** &=OppLineItems.OPPORTUNITY_LINEITEM_PRODUCTNAME(Noadd)

PARAMETER	DESCRIPTION
Group:Normal	Groups the merge field values and displays the grouped value once per data group. Frequently accompanied by "Skip". See "FAQ: Grouping Data" for more details. **Example:** &= OppLineItems.OPPORTUNITY_LINEITEM_PRODUCTFAMILY(Group:Normal)
Group:Merge	Groups the merge field values and displays the grouped value once per data group. The cells in the group-by field for each group set are merged together. Frequently accompanied by "Skip". See "FAQ: Grouping Data" for more details. **Example:** &= OppLineItems.OPPORTUNITY_LINEITEM_PRODUCTFAMILY(Group:Merge)
Subtotal*N*: *GroupByColumn*	Performs a summary operation for a specified field related to a grouped field. The summary action, determined by *N*, is in the range 1 through 10 (see table below). The *GroupByColumn* is the field on which the data is grouped (separately). Requires: • A separate column in which the Group parameter has been utilized *N* value choices: 1=AVERAGE 6=PRODUCT 2=COUNT 7=STDEV 3=COUNTA 8=STDEVP 4=MAX 9=SUM 5=MIN 10=VAR See Excel's help for more details about the Subtotal function. **Example:** &=OppLineItems.OPPORTUNITY_LINEITEM_SALESPRICE(Subtotal9: OppLineItems.OPPORTUNITY_LINEITEM_PRODUCTFAMILY) **Note:** Subtotal can be also used as an independent function, as in: &=Subtotal9:OppLineItems.Product_Family

Example 1:

Say we want to merge Opportunity Line Items on an Excel template. To merge them vertically (the typical method), your template would look like this:

	A	B	C	D	E	F
1	&=OppLineItems.OPPORTUNITY_LINEITEM_PRODUCTNAME					
2						
3						

Assuming we have three items from the OppLineItems sheet, the output would look like this:

	A	B	C	D	E	F
1	Conga Courier					
2	Conga Merge					
3	PharmaNow CRM					

Example 2:

To write data left-to-write, include the *Horizontal* parameter. In this example, the Product Names from an opportunity are written left-to-right.

&=ReportData. OPPORTUNITY_LINEITEM_PRODUCTNAME(Horizontal)

	A	B	C	D	E	F	G
1	&=OppLineItems.OPPORTUNITY_LINEITEM_PRODUCTNAME(Horizontal)						
2							

The output after adding the *Horizontal* parameter would look like:

	A	B	C	D	E
1	Conga Courier	Conga Merge	PharmaNow CRM		
2					
3					

Data arranged horizontally

Example 3:

Extending the previous example, say we want Opportunity Line Items (and Sales Price) to appear from left-to-right across a page. We've also included headers each product column (Product 1, Product 2 and Product 3). To prevent Conga Composer from inserting new columns, we've added the *Noadd* parameter:

	A	B	C	D	E
1	Product 1	Product 2	Product 3		
2	&=OppLineItems.OPPORTUNITY_LINEITEM_PRODUCTNAME(Horizontal, Noadd)				
3	&=OppLineItems.OPPORTUNITY_LINEITEM_SALESPRICE(Horizontal, Noadd)				

&=ReportData. OPPORTUNITY_LINEITEM_PRODUCTNAME(Horizontal, Noadd)

The output from this horizontal merge would look like:

	A	B	C	D
1	Product 1	Product 2	Product 3	
2	Conga Courier	Conga Merge	PharmaNow CRM	
3	$360	$144	$780	
4				

Example 4:

The *Skip:n* parameter can be helpful when you want to insert alternating data on every other row (from fields containing multiple values).

In this example, we'd like to have an Opportunity Line Item Product appear, then the Sales Price below the product, followed by another product and price, and so on.

	A	B	C	D	E	F
1	&=OppLineItems.OPPORTUNITY_LINEITEM_PRODUCTNAME(Skip:1, Noadd)					
2	&=OppLineItems.OPPORTUNITY_LINEITEM_SALESPRICE(Skip:1, Noadd)					
3						
4						
5						

Usually, the *Noadd* parameter accompanies the *Skip:n* parameter.

The output from this template would look like:

	A	B	C	D
1	Conga Courier			
2	$360			
3	Conga Merge			
4	144			
5	PharmaNow CRM			
6	780			
7				
8				

Special Merge Fields

Conga Composer offers several additional merge fields for even more flexibility in your merge templates.

Today's Date (Text)

By creating a merge field with the name **&=Date.Today**, Conga Composer will insert the current date as a text string. Although this field is easy to use, you won't be able to apply a date-format to this value because it's text.

Today's Date (Date/Time Value)

By creating a merge field with the name **&=Date.TodayDT,** Conga Composer will insert the current date as a date/time value. The benefit of this field is that you can format the resulting date with any of Excel's date-formatting options.

Row Number Field

The Row Number field numbers each line item in a detail dataset and is included by default in every report or query dataset. The field name is ROW_NUMBER.
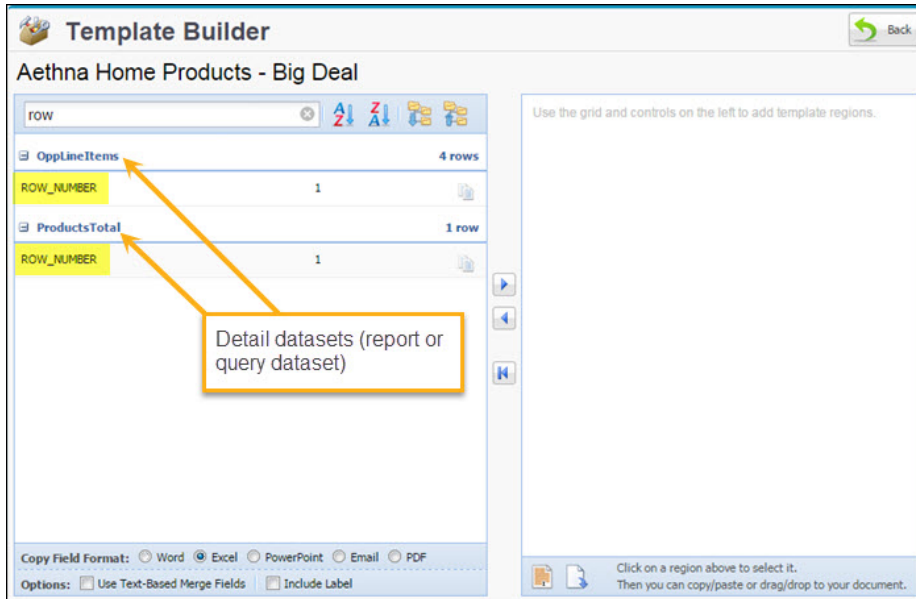
Insert this field into any detail region in the template to number the results in the merged output file. In the below example, the {{ROW_NUMBER}} merge field is placed in the far left column:

	A	B	C	D
1	Row Number	Product Name	Opportunity Lineitem Quantity	Opportunity Lineitem Totalprice
2	&=OppLineItems.ROW_NUMBER	&=OppLineItems.PRODUCT_NAME	&=OppLineItems.OPPORTUNITY_LINEITEM_QUANTITY	&=OppLineItems.OPPORTUNITY_LINEITEM_TOTALPRICE
3				

The merged output file looks like this:

	A	B	C	D
1	Row Number	Product Name	Opportunity Lineitem Quantity	Opportunity Lineitem Totalprice
2	1	GenWatt Diesel 10kW	1	5000
3	2	GenWatt Propane 100kW	2	30000
4	3	GenWatt Diesel 200kW	5	125000
5	4	GenWatt Gasoline 300kW	3	105000

Dynamic Formulas

Dynamic Formulas allow you to insert Excel's formulas into cells even when the formula must reference rows that will be inserted later during the merge process. They can repeat for each inserted row or use only the cell where the field is placed.

Dynamic Formulas begin with **&==** and are followed by an Excel formula.

Repeating Dynamic Formulas begin with **&=&=** and are followed by an Excel formula.

You may use most of Excel's functions in a Dynamic Formula. The following parameters apply to Dynamic Formulas.

PARAMETER	DESCRIPTION
{r}	Indicates to use the current row number Used in conjunction with a column letter to indicate a cell on the current row. **Example:** When the following is placed in cell C1: &==A{r}*B{r} results in the formula =A1*B1
{integer}	Offset to current row number, where *integer* is a positive or negative number that represents the number of rows above or below the current row. Used in conjunction with a column letter to indicate a particular cell offset by the number of rows indicated by the *integer*. Examples: {2} would mean to reference a cell two rows below the current row {-1} would mean to reference a cell one row *above* the current row When placed in cell A10: &==E{1}*D{1} results in the formula =E11*D11

Example 1:

Say we're creating a quote using Opportunities with Opportunity Line Items and we'd like to do some of the math for each Line Item in Excel. (This example is purely academic – Salesforce already computes the product for you.)

We'll start with a Template Builder window that looks like this:

We'll create a template that includes a Dynamic Formula to find the product of the price multiplied by the quantity.

The output from this merge would look like:

In this case the total *does not repeat* for each row. If you want it to repeat, use a *Repeating Dynamic Formula* as shown next.

Example 2:

Let's extend the previous example by changing the Dynamic Formula to a Repeating Dynamic Formula.

Here's the modified template:

	A	B	C	D
1	Product:	Sales Price:	Quantity:	Total:
2	&=OppLineItems.OPPORTUNITY_LINEITEM_PRODUCTNAME	&=OppLineItems.OPPORTUNITY_LINEITEM_SALESPRICE	&=OppLineItems.OPPORTUNITY_LINEITEM_QUANTITY	&=&=B{r} * C{r}
3				
4		Repeating Dynamic Formula: &=&=B{r} * C{r}		
5				

The output from this merge would look like:

	A	B	C	D
1	Product:	Sales Price:	Quantity:	Total:
2	Conga Courier	$360	5	$1,800
3	Conga Merge	$144	60	$8,640
4	PharmaNow CRM	$780	1	$780

Group Data and Calculate a Subtotal

You can group and subtotal columns of merged data using the "Group" and "Subtotal" parameters (see Refine Merge Fields with Parameters in this guide for details).

In the following example, we'll demonstrate how to group and subtotal Opportunity Line Items by Product Family.

Step 1: Non-Grouped Template

Start with a simple template that displays the non-grouped data.

Template:

&=Master.ACCOUNT_NAME		
&=Master.MailingCity		
Product Family	**Product Name**	**Total Price**
&=OppLineItems. Product_Family	&=OppLineItems.OPP ORTUNITY_LINEITEM_ PRODUCTNAME	&=OppLineItems.OPPORTUNITY_ LINEITEM_TOTALPRICE
		0

Output:

Mini Pharma's Revenge		
Aspen		
Product Family	**Product Name**	**Total Price**
Products	PharmaNow CRM	-17,160
Products	Conga Courier	1,800
Products	German Recycle Truck	10,000
Products	German Recycle Truck	10,000
Services	Conga Merge Service	800
Services	Courier Services	770
Services	PharmaNow Services	1,680
Training	Conga Merge	6,950
Training	Conga Courier Point	2,385
		17,225

Step 2: Group by Product Family

Next, modify the merge field that represents the Product Family. Add the parameter to group on that field and to skip a row between Product Family values to make room for a subtotal (in a subsequent step).

Template:

Output:

Tips and Tricks

Using the SUBTOTAL9 function as depicted above will ensure each group maintains a subtotal and will prevent blank lines from appearing below the merge results.

Step 3: Subtotal on Price

Next, insert a formula to subtotal on Total Price. We've added bold formatting to the formula to emphasize it.

Template:

Output:

Notice each subtotal in **bold** text.

Step 4: Compute Grand Total

Finally, insert a formula to find the grand total of the Price column. Do not use the =SUM function to add this column, as it will include the subtotal values in the result. Instead, we'll include the Excel formula:

=SUBTOTAL(9, C5:C5)

We've also added a label for the total ("Grand Total") and formatted the values as currency (USD).

Template:

Output:

FAQs

How can I use a merge field within a formula?

For merge fields that will be referenced by other fields using Excel formulas, we've found the easiest way to approach this is to **place merge in a non-printing area of the worksheet or on a separate worksheet**.

Then, in formulas elsewhere on the spreadsheet, use the cell coordinates to refer to the value.

In this image, we have a non-printing area of the spreadsheet with many fields.

To use one of these cells in a formula, you would simply refer to the cell reference in the formula. Here, we're combining the city, state and postal code values with a comma-space after the city field and a space between the state and postal code.

	I	J	K	L
	Not Included in Print Area. Fields used in formulas.			
	&=Org.Org_Street			
	&=Org.Org_City			
	&=Org.Org_State			
	&=Org.Org_PostalCode			
	&=Master.Contact_FirstName			
	&=Master.Contact_LastName			
	&=Master.Contact_MailingStreet			
	&=Master.Contact_MailingCity			
	&=Master.Contact_MailingState			
	&=Master.Contact_MailingPostalCode			
	&=User.User_FirstName			
	&=User.User_LastName			

=CONCATENATE(I9, ", ", I10," ", I11)

Tips and Tricks

Use =CONCATENATE(…) to join field values together. The abbreviated ("&") function is not supported.

## How do I set the Printable Area of the Spreadsheet

You can flag the portion of the spreadsheet you want to print. To identify the part of the spreadsheet currently specified to print, choose **View | Page Break Preview**.

To change the printable area:

1. Select the portion of the spreadsheet that should print using your mouse.

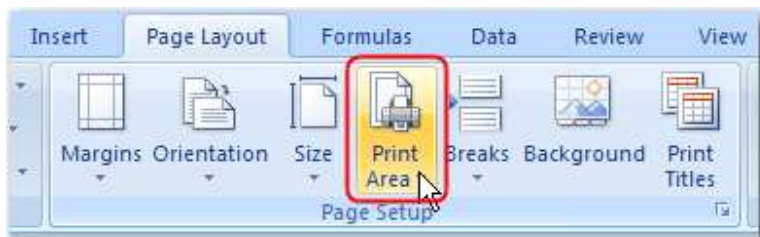2. To set the printable area to the selected cells:

   Word 2003:

   Choose **File| Print Area | Set Print Area**.
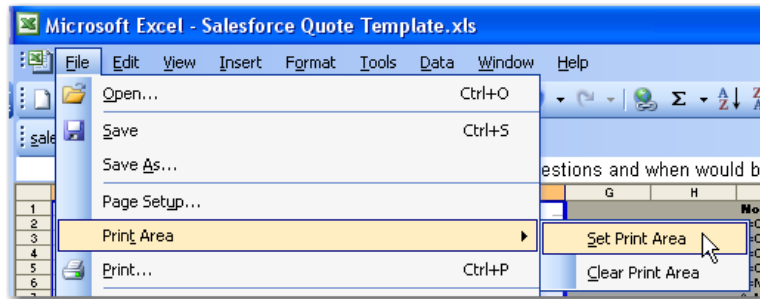
   Word 2007:

   On the **Page Layout | Print Area**, and then click **Set Print Area**.

3. Choose **View | Normal** to return to the previous view mode.

How can I determine which sheets to include in an output PDF?

You can control which sheets are included in an output PDF from a Conga Excel template. To do so, **select the sheets you want included by holding the Ctrl key and clicking on each desired sheet.**

Excel will highlight the "selected" sheets in white, while the non-selected sheets will remain with a gray background.
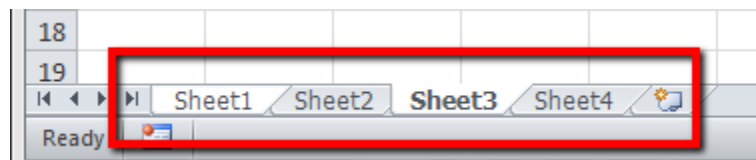
In this example, "Sheet1" and "Sheet3" are selected and would be the sheets included in a PDF generated from this template.

What's the best way to format text paragraphs?

Conga Composer cannot dynamically increase row height to accommodate multiple lines of text. For this reason, it is usually helpful to merge (not *mail* merge, just *merge*) a number of rows sufficient to your needs (**Format Cells | Alignment Tab | Merge cells**) , leaving unmerged rows to the right or left that will preserve the height of the merged area after Salesforce field content is merged.

Here is the formula used in the cell above:

Know Your Limits

While Conga Composer strives to provide 100% compatibility with Microsoft Excel based templates, from time to time we encounter customer solutions that do not function exactly as intended. We encourage you to test your Excel template with Conga Composer to ensure full compatibility.

Known Limitations

- Macros in Excel templates will not be executed upon merging. If the output file type is chosen as Excel, a user can manually execute the macros but Conga will not do so automatically in the merge process. If the output file type is chosen as PDF, the macros in the Excel template will not execute before conversion to PDF.

- The use of large exponential equations has inconsistent results. At this time Conga has not been able to isolate a particular "limit" with regard to the size and complexity of the formula that might result in error.
  - Example: =A5^(B5+C2)

- Some chart types when converting to PDF: We've found that some complex chart types revert to more simple versions when converting to PDF.

- We recommend saving your Excel template as .xls (rather than .xlsx) format to ensure the widest compatibility for end users.

Unsupported Features

- Array formulas

- Excel picklists

- Page breaks on an individual sheet

- Pivot tables

- XML Maps

- Conga Composer will not support any formula containing (but not limited to) the following functions (see table below):

ASC	CUBEMEMBERPROPERTY	JIS
BAHTTEXT	CUBERANKEDMEMBER	PHONETIC
CLEAN	CUBESET	REGISTER.ID
CALL	CUBESETCOUNT	RTD
CODE	CUBEVALUE	SQL.REQUEST
CUBEKPIMEMBER	EUROCONVERT	YIELD
CUBEMEMBER	INFO	YIELDDISC

General Conga Limits

Conga Composer®	Maximum
Reports per Composer solution	50
Rows per Report	2,500
Rows per Composer solution (all Reports and Queries combined)	25,000
Queries per Composer solution	50
Rows per Query	2,500
Template Size	10 MB
Number of Templates per operation	10
Aggregate Template Size (when specifying multiple templates to use in the merge process)	20 MB
Aggregate Output Size	40 MB
Columns per worksheet in View Data workbook	256
Conga Mail Merge® Limits	**Maximum**
Reports per Mail Merge solution	1
Rows per Report	5,000
Template Size	5 MB
Output File Size	40 MB
Documents per batch (Master records)	1,000
Conga Query Manager℠ Limits	**Maximum**
Rows from an Aggregated (SUM, COUNT, etc.) Query. Aggregate or Offset queries are limit to 1,000 rows.	1,000
Rows of data from a Query Variable (QVar)	50
Conga Conductor® Limits	**Maximum**
Records in a Conga Conductor batch	50 records for consolidated output. 500 records for distributed output.
Conga Workflow® Limits	**Maximum**
Conga Workflow transactions	50 per day
Conga Courier® Limits	**Maximum**
Conga Courier Schedules	200
Recipients for a Courier Schedule	25
Output file size	5 MB
Browser URL Limits	**Maximum**
Internet Explorer	2,000 bytes (closer to 1,700 bytes in practice)
Chrome, Firefox, Safari	64,000 bytes