PROPOSAL PACK WIZARD

LINE-ITEM DATABASES FOR QUOTES, INVOICES, SCHEDULES, BUSINESS PLANS, ETC.

[Video Library for the Line-Item Database System](#)

Proposal Pack Wizard is an optional interface which requires Microsoft Word 2010 to Microsoft 365 for Windows and at least one Proposal Kit, Contract Pack or Proposal Pack.

While the Proposal Kit, Contract Pack and Proposal Pack templates are cross-platform, the Proposal Pack Wizard is only for use with Microsoft Word 2010 to Microsoft 365 on Windows.

This manual is written for the Expert Edition of the Wizard and includes information not available in the Novice Edition.

https://www.ProposalKit.com

Proposal Pack Wizard works with all versions of Word that support macros and that are currently supported by Microsoft. While the Wizard still runs on obsolete versions of Word in most cases, not all features will work perfectly on outdated versions of Word, and we are not able to fix issues related to bugs or features missing in unsupported editions of Word and Windows. We do not test the Wizard on obsolete versions of Word, and we do not guarantee it will operate in obsolete versions.

TABLE OF CONTENTS

WHAT IS THE LINE-ITEM DATABASE SYSTEM?

 [Video Library for the Line-Item Database System](#)

The Wizard includes a comprehensive customizable line-item database system that can be used for quotes, invoices, cost pages, schedules, business plan financials, etc.

Novice Edition users can use any of the premade databases and Sample Proposal's databases as-is to add line item automation to their proposals and other documents created in the Wizard.

Expert Edition users can customize any database and create their own custom databases.

A line-item database can be thought of similarly to an Excel spreadsheet with rows, columns, and sheets.

A line-item database will have one or more categories (like an Excel worksheet). Each category can have one or more line level fields (like an Excel column) that have attributes such as the data type, default value, formatting, calculations, etc.

A database can also have global level fields that can be used to store individual data values or calculations such as category line field summaries, tax rates, shipping costs, discounts, grand totals, start dates, etc.

The line-item database data will then be output to your project document(s) when you build your project. Category data is output

into Word tables with each visible column going into a Word table column. Global fields can be put into Word table cells or directly into the body text of your documents using tags.

The Wizard can either create tables for the output or you can handcraft your own tables and put tags into the locations where the data will be inserted. This gives you a wide variety of output formatting options.

Line level and global level fields can be static data values or calculations. Calculations can use basic arithmetic using plus, minus, times, and divide as well as using built-in functions such as for rounding.

The Wizard also lets you create custom user functions which work like an Excel Switch statement.

The variety of data types, calculations and formatting options gives you a comprehensive system for adding many different types of automated line items databases to further automate your document creation.

LINE-ITEM DATABASE LIMITATIONS

While the Wizard's line-item database is very extensive in its features and capabilities it is not designed for large scale use.

There is no integration with 3rd party systems such as high-end systems for managing other company's data sets.

While the Wizard can process line-item databases with a thousand or more line-items, the output can be very time consuming with categories with more than about 100 line-items each.

The Wizard is built on Microsoft Word's VBA API, and it is Microsoft Word's API functions that are processing the visual output such as inserting tables, expanding tables, inserting the line-item data into the table cells, applying color schemes to the table cells, etc.

Word's API can be very slow with large tables. There are line-item databases setup in the Wizard where you can have very large data sets that still work efficiently because only the final summary fields are output to the Word tables. This can be an effective strategy if you do not need the line-item data output. Or if you can do your document creation overnight.

You can also speed up table processing by pre-creating your Word tables and pre-applying the color scheme and formatting to the cells and turning off the Multi-Table Rows features to put all the line-item data into one Word table row per category.

NOVICE VS. EXPERT FEATURES

The line-item database system is available to all users.

Novice Edition users can use any of the premade databases as-is including all the premade Cost Summary/Invoice databases, all the Sample Proposal's custom databases (of which there are almost 100) and all the component chapter template databases (of which there are about 60).

The premade Cost Summary/Invoice databases are found in the **Line Item Quote** screen when setting up your project.

The Sample Proposal's databases can be manually loaded from the **Preferences** > **Data & Display** > **Line Item Quote Database** > **Premade Databases** > **Sample DBs** screen or they are loaded when importing a Sample Proposal.

The component chapter template databases are typically managed automatically by the Wizard. These are for the individual chapter templates like a Time Line, Project Schedule, Budget, Cost/Benefit Analysis, etc.

Expert Edition users have access to all the Preferences options for customizing database definitions and creating their own custom database definitions.

Basically, Novice Edition users can use premade databases as-is but cannot modify the definitions or create their own.

Expert Edition users have full access to all the features.

HOW TO LOAD EXAMPLE AND SAMPLE DATABASES?

The Wizard comes with a variety of stock databases preloaded for use with the Cost Summary and Invoice templates. These can be selected from the drop-down database lists.

There are many more databases available for use in the Wizard which can be loaded.

There are about 100 customized database definitions used with the Sample Proposals. These database definitions will be automatically loaded when you import a Sample Proposal into your project. They can also be loaded from the Preferences > Data & Display > Line Item Quote Database > Premade Databases screen.

On this tab you can select a Sample Proposal and load its custom database definition.

There are about 60 component chapter template databases which are normally appended to your currently loaded database as you add chapters to your project that are database enabled. However, you can also load these databases to have them explicitly available to add to your project.

There is also a library of example database definitions that can be loaded. The example databases are not intended to be used as-is for production use. They are used to illustrate how various parts of the quote and line-item database system work to help you customize your own database definition.

HOW TO ADD A LINE-ITEM DATABASE TO A PROJECT?

It is very easy to add a line-item database to your projects.

Click the **Line Item Quote** button on your project's edit screen.

There are premade databases set up for a variety of quotes that will use the standard Cost Summary/Invoice pages.

If you have imported any Sample Proposal into your project that was set up with a custom database, it will be assigned to your project and loaded with sample data automatically.

If you create a custom database in the Preferences, you can select your custom database from the dropdown list of available line-item databases.

If you have selected chapter templates for your project that are database enabled such as a Budget, Time Line, Schedule, Cost/Benefit Analysis, etc. its database will be setup for your project automatically and/or it can be imported into your existing database.

Once you have a line-item database selected for your project you can add line-item and global data values to it.

Once you save your project to build your documents the database data will be output to your document(s) automatically.

If you change the assigned database, you will lose all line-item data that exists from the previously assigned database.

HOW TO CUSTOMIZE THE LINE-ITEM DATABASE?

All customization and management of the line-item database system is done in the Wizard Preferences screens. When this manual refers to the Preferences that is the configuration/management set of screens.

On the Wizard home screen click the **Preferences** button.

Then click the **Data & Display** tab.

Then click the **Line Item Quote Database** button.

This will put you on the main screen where you can manage the entire line-item database system.

Novice Edition users will be restricted to what features are available.

HOW TO ADD LINE-ITEMS TO YOUR PROJECT?

The basic use of the line-item database system is automatic.

There are three things needed to get database information output into your project documents (such as a quote, invoice, project schedule, etc.).

First, you need to add a database definition to your project. This can happen in a few different ways. If you import a Sample Proposal that uses a custom line-item database, it will be attached to your project along with that sample's data and custom templates letting you recreate any Sample Proposal without having to do any extra work.

If you add any of the approximately 60 chapter templates to your project in the **Pick Documents** screen such as the Cost Summary, Invoice, Budget, Time Line, etc. which are database enabled the database definitions will be added automatically when you click the **Line Item Quote** button on the project screen.

If you select a specific line-item database definition from the Line-Item Quote screen, then that database will be associated with your project.

Now that you have a database definition you also need to have the matching chapter templates added to your project. This will also happen automatically. When you import a Sample Proposal with a line-item database all the needed chapter templates will be added to your project. When you select a database definition from the

Line-Item Quote screen any chapter templates associated with the database definition will be automatically added to your project.

Once you have a database definition selected you must add line-item data to it. Click the **Manage Data** button and you can add line items to your categories and data values for your global fields. Expert Edition users can also use the Excel import/export buttons to load their database from an Excel spreadsheet.

Expert Edition users also can create a list of premade line items they can select from to fill their project data from. This can be useful if you have lists of products, services, etc. you want to have quick access to fill in your project data.

Once you have a database definition and data for your project you are ready to output to your project documents.

Depending on the setup of the database definition the Wizard will either create all the Word table output itself or will fill in custom tables already created in the templates. If the Wizard created tables do not match the visual look you want for your table output, you can make a copy of the associated chapter template in the MyTemplates folder and customize it by adding your own Word table with tags embedded in the cells. This allows for more customized output.

All the stock templates and Sample Proposals are already set up ahead of time to work with the matching database definitions without having to do any customization.

Expert Edition users can customize the table output settings for Wizard created tables. Novice and Expert Edition users can create

custom chapter templates in the MyTemplates folder and handcraft their table output.

When you save your project, and the Wizard creates your project documents your line-item databases will be output into the documents.

To save time you can preview the quote output from the **Test and Preview** button when adding your quote data. The previews will show you what the documents in the final output will look like.

Once you are finished with your quote data and satisfied with how it will look in the final documents you can save your project and create your documents.

If you need to make changes after your project documents are created the method used will depend on whether you have started doing any real editing of the project documents. If you have not started editing you can unlock the project and delete all the files, make your database changes then rebuild your project. This will be the safest but most time-consuming option.

If you have made extensive changes to your project documents and do not want to lose any work, you may need to manually edit the quote related tables. Or build them using the **Test and Preview** screen and then copy/paste the updated tables from the preview document into your working document.

HOW TO ADD SPACER LINES?

You can use spacer lines to add blank space, dashed lines or colored lines to break up your line item data.

When adding new line item data lines there is a button on the form Add Spacer Line. Click that to bring up the spacer line options.

You can pick what the spacer lines will look like such as a blank row (spaces) or any character such as a dashed line.

When using a visible character, you can specify how wide the spacer values will be such as matching the widest data value width for each column, a set width per column, adding extra length to the widest value, or setting a single line of values and having all the columns merged into a single table wide row.

The merging all fields option will only be applied when using one Word table row per line item data row.

You can specify a color to apply to the spacer row. You can select from any one of the 6 premade colors of the design theme (Color #1 is the default) or you can specify a custom color.

The color option will only be applied when using one Word table row per line item data row.

If you want to use the same style of spacer row every time, click the button to save your settings as the default spacer so the values will be loaded in the form for you every time you add a spacer row.

HOW TO CUSTOMIZE TABLE OUTPUT?

If you create custom Word tables in a template such as those stored in the MyTemplates folder, you can customize the table layout yourself.

The Wizard may still make alterations to that table based on settings you have made in the Wizard such as turning off table cell borders or applying cell padding and margins.

Some table settings can be found in the Wizard's Button #1 – Document Styles > Edit Style > Tables tab.

Other table settings can be found in the Preferences > Data & Display > Line Item Quote Database > Manage Selected Definition > Edit Definition > Table Settings screen.

There are options for defining the margins/spacing around the data within table cells, color schemes, defining column widths for Wizard created tables, etc.

When outputting multiple global level fields to a summary table and letting the Wizard create the table output only the width setting for the 1st of the global level fields in the table will be used to define the width of the data column.

Another way to customize table output is hiding or showing the category header rows and hiding or showing individual line-item and global level field labels. These can be turned off in the database definition.

Global fields can also be used in the category and line-item level header rows. For example, instead of "Quantity" or "Discounted Price" as a static piece of text for a column label you can set your Word table column text to "Quantity for <<STORECOUNT>> Stores" or "Price at <<DISCOUNTPERCENT>> Discount". In this example you would have two global level fields with codes STORECOUNT and DISCOUNTPERCENT.

Between the use of custom designed Word tables and all the table settings options you can create just about any table layout final output to suit your needs.

HOW TO CHANGE DATA ONCE OUTPUT?

Once a project's document(s) have been created they are standard Word format documents and not tied to the Wizard's database system.

This means that changing your quote data in your project database will not change any documents you have created.

There are a variety of ways to update created documents depending on what state they are in.

If you have not started editing your project documents and there is no work that could be lost is the easiest to accomplish. You can go back to the project screen using the **Edit Current Project** button, uncheck the **Locked for Editing** checkbox and click the **Delete Old Files** button. This will delete all the generated documents for the project. Once you are finished with any database changes click the **OK, Save Project and Build Documents** button to recreate the project documents and the updated data will be used.

If you have started editing your documents and have work you do not want to lose you can use the **Test and Preview** button and create a preview of the updated quote. The previews are separate Word format documents from the project documents. You can then copy and paste the updated tables from the preview documents into your working project document.

For very minor changes you might just hand edit the values in the Word document. However, take care that anything that may have

been calculated based on anything being changed may also need to be updated.

WHAT IS THE STRUCTURE OF A DATABASE?

All line-item databases use a structure of categories and fields and can be thought of like an Excel spreadsheet.

A database definition holds the structure of each database. Every database definition will be contained in its own data file in the Database_V## folder such as Quote1.ini, Quote2.ini, etc.

The data file will contain all the structural information about the database and any preload and premade line-item data. The data files are managed by the Wizard screens, and you should not have to manually edit these files.

Every database definition must have one or more categories. A category can be thought of like an Excel sheet where an Excel file can have multiple sheets, each with its own columns and rows.

A category will hold all the line item fields (i.e., the columns) and any formatting information for the category. A category will be output by the Wizard as a Word table with a column for every visible line level field and a row for every line item added to the data.

A category will have one or more line level fields. Each of these fields will have attributes such as the data type, default value, formatting, if it is hidden or visible, unique, required, if it's a calculation or pulled from another location, etc.

A simple product sales category might have fields for the Description, Unit Price, Quantity and Amount where the Amount is a calculation of the Unit Price times the Quantity.

A more complex category could include line level taxes, shipping, weights, image thumbnail, etc.

A category for a schedule or timeline would include fields like a Task, Start Date, Duration, Time till Next Task and would probably have a running calculation of each task's start date based on the previous line item.

A database definition can also have global level fields which are single values that are normally used within category level calculations or are calculated from category line level fields. Examples of global level fields are tax rates, shipping, start dates, sums of line-item amounts, subtotals, grand totals, discount amounts, etc.

In summary, a database definition has one or more categories made up of one or more fields and optional global fields.

More complex definitions may have custom user functions, drop-down lists, image lists and custom templates associated with the definition.

This allows you to create many different custom databases as needed depending on how complex your needs are. You can select the database for each project allowing for a wide range of custom quoting options.

CASE SENSITIVITY IS IMPORTANT

Everything defined in the database is case sensitive and must match exactly or will not be recognized.

For example, a CALC:, EXCEL:, or TAG: value must be all upper case. It will not be treated as a calculation if you use calc: or Calc:

Tags added to your template must match the case exactly. For example, <<Q-QUOTE>> and not <<Q-Quote>>.

HOW TO CREATE A NEW DATABASE?

If you are going to create a new database from scratch this is a good process to start with.

Not all elements have to exist before you add references to them, for example you can write a calculation for a line-item field using the name of a code for a global level field or another line-item field that you haven't created yet.

The first thing you need to do is click the **Add New Definition** button and give your database a unique name and description.

Then click the **Manage Selected Definition** > **Edit Definition** button.

At a minimum for a working database definition, you must have one category with at least one line-item level field.

Click the **Categories** > **Manage Categories** button then add a new category. Every category must be associated with at least one Proposal Pack chapter template. This is the page that the table for the category and its line items will be output into. Every category must have a unique code. All references in calculations use these codes. If you are going to create multiple categories with similar fields, you should create the first category and add its line-item fields first. Then you can clone the category and save the time setting up the next category.

Click the **Category Fields** button. There are a few different ways to get into the category fields depending on what screen you are on.

Now add the fields for your category. Each line-item level field is a column with a data type and attributes. At a minimum only the data type needs to be set but you should make the identifier and label match what the field will be used for. For example, for a quantity field set the Line-Item Identifier to QTY and the label to Quantity. You can duplicate the identifier across different categories. For example, if you have multiple categories like PRODUCTCAT1, PRODUCTCAT2, SERVICESCAT1, etc. you can have a QTY field in each one of them.

Select the data type and optionally a custom format string if the raw data needs to be displayed differently.

If a column is only needed for calculation purposes and you do not want it to output, uncheck the Visible box.

If a column must always be filled in by the user check the Required box. You might also want to always use a default value as well.

If a value must be unique across all line items in the category, then check the Unique Values box.

If a field is to be used for a calculation, pulled in from an Excel spreadsheet or from a system or mail merge tag use the CALC:, EXCEL: or TAG: in the Value field. See the chapters on using these features for more details.

Once you have line items created if you need a similar category, you can clone it then edit as needed. You can also clone in categories and entire databases using the **Clone Category** button.

Click the **Global Fields** tab to add global level fields. This is the same as adding line-item level fields except that global level fields

sit outside of the categories and are used for things such as tax rates, start dates, shipping, taxes, discounts, category subtotals, grand totals, etc.

Global level fields are assigned automatically to be attached at the end of a categories list of line items when the Wizard does the table output when they use a CALC: calculation that is the SUM() of a single line-item field. This is commonly used for a subtotal of an amount column.

All other global fields go into a summary table after all the category tables are output (or they could go into a header table). This is done by assigning the global to a specific category and while optional should be done when you have multiple categories that are being output to different pages. Such having a cost page and a schedule page each with different global fields assigned to them.

For more complex databases start adding dropdown lists, functions, images, configuring table settings, creating custom table layouts as needed.

HOW TO OPTIMIZE LINE AND GLOBAL FIELD ORDERS?

The Wizard makes as many passes through all the line items and global field calculations as needed to calculate everything.

If you put fields calculations that are required for a previous field, it can add additional passes through the entire database.

As a best practice put your fields in the order that minimizes how many passes through the entire database are needed to calculate everything.

If the Wizard makes an entire pass through the database during the calculation phase and no line or global fields are calculated, then the calculation phase is complete. If there are uncalculated values remaining after a pass where nothing was calculated, then an error will occur. This is typically caused by malformed CALC: calculations that are circular (i.e., something is being calculated on something that has yet to be calculated that depends on the value not yet calculated).

The database tests will help determine if there are mistakes that need to be fixed in the database definition.

WHAT DATA TYPES ARE AVAILABLE?

There are a variety of data types available for your line-item and global level fields. The data type will affect the formatting and how a field is used in calculations. The output formatting is separate from the raw data values. Formatting strings can be applied to the data types for how they will be displayed in the documents.

String

The String data type can hold any information. Strings are limited to 255 characters.

Integer

The Integer data type is used for numbers without decimal points.

Numeric

The Numeric data type is used for numbers with decimal points.

Currency

The Currency data type is used for currency fields. It is treated as a numeric field, however, will be formatted as a currency value.

Percentage

The Percentage data type is used for percentages and is stored as a numeric value.

Alphanumeric

The Alphanumeric data type is like a string however it can only contain numbers, letters, and spaces.

Boolean

The Boolean data type is stored as an integer and can be either a 0 or a 1.

Increment

The Increment data type is a special case that is automatically incremented as line items or projects are added. An Increment field will have a starting value and an increment value which can be numeric or pulled from a global field. Increment fields can also be incremented across different categories when you have the same field code for a field in two or more categories. When used with a global level field the value is incremented across your projects (i.e., it can be used for invoice numbers). When used with line-item level fields it will be incremented as each new line item is added to a category. The Increment data type can be used for rolling schedule dates, cost summaries, etc.

Date/Time

The Date/Time data type is used for dates and times and is stored as a string but is operated on numerically for purposes of adding/subtracting from a Date/Time value.

Dropdown List

The Dropdown List data type is used to restrict the users' choices by offering a drop-down list of items to select vs. a free form field. Dropdown Lists have a default value, and each item is stored and operated on as a numeric value with a string for the display value. Since a Dropdown List is stored numerically it can be used in calculations.

URL

The URL data type is stored as a string and can be used for hyperlinks and emails. A URL is stored in two parts, the actual URL value, and a display value. The display value is used in the Word documents as what you visually see which can be any string and the underlying clickable URL must be a valid URL or email.

Image

The Image datatype is a special case that allows you to embed images into your Word document output such as product thumbnail images into line-item data output. The Image data type uses a separate list of images stored in the database using tags. The tags are what are stored in the line-item data referencing the image database. This allows for changing the image database without needing to change any projects referencing image files. Images are stored with the link to the image on the hard drive and a text description.

Line Number

The Line Number data type is managed by the system and is

the incremental line number within the category. The first line item in a category will have a Line Number of 1 and each following line item will be incremented by 1.

HOW TO USE INCREMENT DATA TYPE

The increment data type is used to automatically increment a field from one line-item row to the next.

This can be used for something like a running subtotal or a start date for each task of a schedule or a negative increment for counting down a balance due.

An Increment data type needs to specify a default start value for the first row and an increment value. These can be another field value or a static value.

Calculations, custom user functions and Excel links cannot be used as the start or increment values.

You can increment a field value across multiple categories if you have a field with the same field code in both categories which are both Increment data types, and the Carryover from Previous Category flag is checked in the line-item field definition.

A negative increment can be set up by creating an extra line-item level field that is a CALC:(NEG(FIELDCODE)) to create a negative value. Then set that line-item field as the increment value for the Increment data type. Create a 2nd hidden line-item level field that will be the global original value minus the value being subtracted from the first line. This field will become the starting value. See the Payment History template and its database definition as an example of how a negative increment is setup.

HOW TO USE DATE/TIME DATA TYPE

The Date/Time datatype has several uses beyond just using it for static data when used in calculations.

Since Date/Times are stored numerically they can be used in calculations such as adding and subtracting seconds, minutes, hours, days, weeks, months, quarters, years, etc.

See the Example database definitions for all the ways a Date/Time data type can be used for more details.

If two values are used in a calculation that are both Date/Time, the only valid operation is to get the difference between them which will be returned as the number of days. For example, CALC:(DATE1-DATE2).

To get the current date and time use the system tags SYSTEMDATE and SYSTEMTIME. For example, CALC:(SYSTEMDATE) returns the current system date such as January 10, 2023 (depending on the formatting being applied).

To pull the projects date which may be different than the current date such as the date the project was first created in the database which will always be that date pull it in with a tag such as TAG:CurrentDate. You would create a global field called PROJCURRDATE with TAG:CurrentDate in the Value field and set it as a Date/Time data type. Then you can use that global field in other calculations. For example, if you need another global field which is the project creation date plus 60 days for a due date you might create a DUEDATE global field with Value of CALC:(PROJCURRDATE+60).

You can add and subtract seconds, minutes, hours, days, weeks, months, quarters, and years from a Date/Time value as follows:

First you need to define a Numeric data type field and set the Increment to be one of those values.

Then you need to define a Date/Time data type field with a calculation that adds or subtracts that field.

For example, define a field INCVALYEARS as a Numeric and set the Increment Units drop down to Years.

Then define a field DATEVAL which will hold the Date/Time to be operated on.

Then define a field NEWYEARCOUNT as a Date/Time and set the Value field calculation to be CALC:(DATEVAL+INCVALYEARS).

The resulting calculation will be the date with that number of years added to it.

HOW DO CALCULATIONS WORK?

Line-Item and Global level fields can be set to static data values, or they can be calculations.

While the Wizard's calculation processor is extensive it does have its limitations. Do not expect to be able to create any kind of calculation you can imagine or that it will do everything that Microsoft Excel can do. There are only a couple limited cases for example where you can nest calculations such as in some of the built-in functions like ROUND, etc.

A feature of the Wizard's line-item database system is that you can use Excel to do all your calculations if the Wizard's calculation engine is not powerful enough for your needs.

You use the "CALC:(xxx)" statement in the Value field of a database definition to create a calculation.

To see examples of calculations click the **Get Calc Ideas** button to see all the calculations used across all the include examples and samples. This will show you how to structure a calculation.

A calculation can be simple arithmetic using plus, minus, times, and divide symbols operating on fields and static values. A calculation can also use built-in functions such as for rounding and custom user created functions.

A simple example would be CALC:(2+2) which will set the line-item field value that will be output to 4.

If you try and divide by 0 the result will be set to 0 without any errors or warnings.

A common calculation is for a line-item amount which is usually an item price or hourly rate times a quantity. Because field codes are user defined, they can be different across database definitions. You will see commonly used codes in the included databases such as QTY, UNITPRICE, RATE, HOURS, AMOUNT, etc. An example of an amount calculation would be CALC:(QTY*UNITPRICE) or CALC:(RATE*HOURS).

An example of using a global field for the sum of a categories amounts for a subtotal is CALC:(SUM(PRODUCTCAT:AMOUNT)). In this example we use the SUM() function on a global level field and pass in a CATEGORYCODE:FIELDCODE pair to identify the category and field to be summed. When a single SUM field is used like this, the global field will be treated as a summary level field for that category so the subtotal line will be put right after the line items.

There a variety of built-in functions you can use within a CALC statement such as ROUND, ROUNDUP, ROUNDDOWN, FIRST, LAST, etc.

An example of rounding a value is CALC:(ROUND(AMOUNT)).

The CALC statement can also be used to construct custom strings such as CALC:("@ "&QTY&" Meals / "&PARTIALQTY&" Partial Meals per day"). String values are enclosed in quotes and the ampersand is used to concatenate the strings and field values.

The CALC statement can be used to pull in Wizard defined fields from the mail merge data fields and some system defined values.

To get the current date use the SYSTEMDATE or SYSTEMTIME such as CALC:(SYSTEMDATE). An example of getting the current year and the next year is to use these tags with the built-in YEAR function such as CALC:(YEAR(SYSTEMDATE)) and CALC:(YEAR(SYSTEMDATE)+1).

A special version of the calculation system to pull in data values from an external Excel spreadsheet is to use the EXCEL: calculation statement. Instead of CALC: you use EXCEL: such as EXCEL:MySpreadsheet,A2. This will cause the Wizard to pull in the value of the A2 cell from the MySpreadsheet.xlsx file.

This allows you to do complex calculations using custom Excel spreadsheets then pull those values into your Wizard calculations.

You can also create custom user functions which operate like an Excel Switch statement and use those in your CALC: statements. An example would be to create a custom user function to return shipping costs based on the weight of a line item or to return a salesperson's commission rate based on the salesperson assigned. An example would be to create a custom user function with the code SHIPPINGFUNC and then in the calculation refer to it like CALC:(SHIPPINGFUNC).

HOW TO BUILD CUSTOM STRINGS IN CALCULATIONS?

The CALC: statement can be used to create custom strings using the & to append things together.

You can use single or double quotes as the outer delimiters in case you need to use the other as part of the text itself.

An example of creating a custom header in a global level field would be something like this.

CALC:(QTY&" Meals / "&PARTIALQTY&" Partial Meals per day")

This will take the global level fields QTY and PARTIALQTY and append the string using the data values for those fields such as "200 Meals / 60 Partial Meals per day".

Calculations are performed before data formatting is applied so formatted data such as currency formatting or date/time conversions won't be applied to the included values at the time the string is constructed.

HOW TO OVERRIDE CALCULATIONS?

Overrides are used to replace a static data value with a calculation or replace a calculated value with a static data value.

Overrides should only be used when necessary to help prevent mistakes in your output.

Overriding a calculated value will cause the Wizard to skip its normal calculation for that line-item's field and the override will be used instead.

You must turn on the ability to override calculated line-item fields in the database definition. This is because to enter an override you must have a data entry field available to enter the override into in the project's data entry screen. By default, only static fields present you with data entry fields. If you mark a line-item field as overridable you will have a checkbox you can check during data entry to allow a calculated value to be overridden.

You can clear overrides as well in the data entry screens to revert to the calculated values. Uncheck the override box in the data entry screen or use the screen to clear multiple overrides at once.

Going the other direction, you can write your own custom CALC: calculations into a line-item data entry field to override a static data value.

Increment and Line data types cannot be overridden.

HOW TO TEST MY DATABASE?

A database definition cannot be used with a project if there are any errors detected. Some errors can only be detected during calculation time which means some data must exist first.

After every change you make to your database in the Preferences use the **Testing > Test Definition** button to run a test on your database definition.

This test will also add a dummy row of data to each category to do basic tests of all the calculations.

Most errors that occur will be the result of improperly constructed calculations. Check the syntax and construction of your calculations and if any field codes were misspelled or are using a field that doesn't exist or isn't used in the proper context.

If you are using complex calculations try simplifying them to a version that works, then add back elements one at a time.

The test will create a detailed report that will tell you what problem was found so you can fix it.

Once your database passes the tests you can use it in your projects. There is also a test button in the project screens so you can test any data entry problems.

HOW TO PULL IN EXCEL SPREADSHEET VALUES INTO A CALCULATION?

You can integrate your own custom Excel spreadsheet calculations with the Wizard's calculations.

This is useful if you have custom Excel calculators already made or have calculation needs that the Wizard cannot accommodate.

You can pull in the value of a specific cell of an Excel spreadsheet into a line-item or global level field.

One example included in the Wizard Sample Proposals is using a custom Excel spreadsheet to calculate the amount of square footage for a janitorial cleaning proposal and those calculations are done in a custom Excel spreadsheet. Then the Wizard pulls in the final square footage numbers to use in line-item price calculations for the final quote. This concept can be used for all types of custom spreadsheets such as construction projects, etc. that may have extensive custom Excel spreadsheets used to create quotes.

In the Value field of a line-item database field instead of the CALC: statement you will use the EXCEL: statement.

The EXCEL statement needs the file name of an Excel spreadsheet which should be a .xlsx file, the row and column that identifies a specific cell and optionally the sheet name if using a spreadsheet with multiple sheets.

An example would be EXCEL:MySpreadsheet,B5,Sheet3

This will cause the Wizard to pull in the value in the MySpreadsheet.xlsx file from the B5 cell on the sheet named Sheet3.

HOW TO CREATE DROPDOWN LISTS?

Dropdown lists are used to restrict the user's choices with a dropdown of options vs a freeform data entry field.

Create dropdown lists in the Preferences in the Lists tab. You can create multiple lists in a database definition.

The default and item values must be numeric. This allows them to be used in calculations. All display strings and values must be unique including not matching the defaults.

The display values can be strings.

The dropdown lists will be shown during data entry when you are creating line-item data.

If you export the database definition to an Excel spreadsheet the lists will also be recreated in the spreadsheet.

To cause the output value to be an empty string use the word BLANK in upper case as the display string. It will be output into the documents as an empty string.

To assist in the loading of common types of drop down lists such as countries, states, months, races, ethnicities, genders, etc. there are premade lists you can customize and import. Click the Import List Items button then click the Import from Premade Lists from the drop down menu. All lists in the PremadeLists.xlsx file will be shown. Once you select and import one of those premade lists your list in the Wizard will be loaded.

You can edit this PremadeLists.xlsx file including adding new sheets with new lists.

HOW TO CREATE CUSTOM USER FUNCTIONS FOR CALCULATIONS?

Custom user functions in Wizard work the same as an Excel Switch statement. That means they are a series of if-then-else statements with a default value. When you export a Wizard database definition to Excel spreadsheet your custom user functions are exported as Excel Switch statements so they will be fully functional within an Excel spreadsheet.

When creating a custom user function give it a unique code for the identifier. This code is how you will reference the function within a calculation. The display name is only for identifying the function in Wizard menus.

Select a default value for the function which can be another field or a static value. The default value and all results should be numeric values if the function is to be used in a calculation. Result values can also be strings. For example, you can use a custom user function to create user readable display strings for numeric values when the custom formatting options are not enough.

Add statements by entering values which can be static values and field codes with a condition. Such as ITEMWEIGHT > 50 and result 10. As you construct your statements make sure to do so in a way that they evaluate properly.

If a function includes line level field codes, it can only be used within line level calculations on any categories that include fields with matching codes. A function that only includes static data and global level field codes can be used in both global and line-item level calculations.

Use the **View Function** and **Test Function** buttons to ensure your functions work as expected.

An example of a user defined function could be creating a shipping cost based on an item's weight. Say your function code is SHIPFUNC and you create some statements for it based on a weight field and returning a value for a shipping amount.

In your calculation for a field called SHIPCOST you could write a calculation statement like CALC:(SHIPFUNC) and the resulting value for that field would be what the SHIPFUNC function returns. You can combine a user function into a longer calculation such as CALC:(MYFUNC+20).

HOW TO USE BUILT-IN FUNCTIONS IN CALCULATIONS?

Built-in functions are available to use in your calculations to help adjust the final values such as rounding functions or to retrieve specific line-item values such as the first or last in a category or the minimum or maximum value, etc.

Category and field codes are user defined. Use the codes for categories and fields as defined in whatever database you are using calculations in.

When in the global and line level field add/edit screens click the **Get Calc Ideas** button to search for all uses of a function across all databases. Click the Data Type dropdown so it will narrow the searches down to that data type or pick the Select Data Type entry to search across all data types. For example, search on the word ROUND to see all uses of the various ROUND functions.

Click the **View Calc Fields** button to see a list of all available built-in functions and their structure.

The following are the built-in functions you can use within CALC: statements.

SUM(CATCODE:FIELDCODE)

This sums up all the line items for the given field and category. This is how you do a subtotal for an amount field for example. Any field values that are not numeric will be ignored. This allows for fields to be blank or overridden with text for display purposes will still being able to sum the rest of the rows. This is

a global level field calculation for summing up the values of all the line-items for a category returned as a numeric.

FIRST(CATCODE:FIELDCODE)

This returns the value for that field and category from the first row of line items. This is a global level field calculation to get the value from the first row of a category and can be a string or numeric.

LAST(CATCODE:FIELDCODE)

This returns the value for that field and category from the last row of line items. This is a global level field calculation to get the value from the last row of a category and can be a string or numeric.

PREV(CATCODE:FIELDCODE,X)

This returns the value for the previous row. X is the default value used for the 1st row and X can be a field code or a static data value. This is a line-item level field calculation typically used in running calculations where the current row value depends on what the previous row's value is. If the field's data type is numeric (including Date/Time) it can be used in calculations.

COUNT(CATCODE:FIELDCODE)

This returns the count of number of rows for that category and field. This is a global level field calculation to get the count of the number of rows for a category and is returned as a numeric.

🔲 MIN(CATCODE:FIELDCODE)

This returns the smallest value of for that field and category across all the line items. This is a global level field calculation that returns the minimum value of the field across all the line-items.

🔲 MAX(CATCODE:FIELDCODE)

This returns the largest value of for that field and category across all the line items. This is a global level field calculation that returns the minimum value of the field across all the line-items.

🔲 ROW(CATCODE:FIELDCODE,#)

This returns the actual data value for that field and category for the specified row number. This is a line or global level field calculation for retrieving the value of a specific line-item row.

🔲 ROUND(X[,#])

This rounds a value. The number of decimal places can be specified. X can be a data field or a calculation. Examples are ROUND(CAT1:AMOUNT,2) or ROUND(FIELD1*20,3). The Excel API is used when calling the Round function. If you search online for how the Excel Round function works will explain it in more detail.

🔲 ROUNDUP(X[,#)

This rounds a value up. The number of decimal places can be specified. X can be a data field or a calculation. Examples are

ROUNDUP(COMPDAYS/7) or ROUNDUP(DURATION,3). The Excel API is used when calling the Roundup function. If you search online for how the Excel Roundup function works will explain it in more detail.

ROUNDDOWN(X[,#)

This rounds a value down. The number of decimal places can be specified. X can be a data field or a calculation. Examples are ROUNDDOWN(DURATION,3). The Excel API is used when calling the Rounddown function. If you search online for how the Excel Rounddown function works will explain it in more detail.

CEILING(X,#)

This rounds a value up away from zero, to the nearest multiple of significance. X is the multiple of significance to which will be rounded. Examples are CEILING(YEARLYAMT,10000). The Excel API is used when calling the Ceiling function. If you search online for how the Excel Ceiling function works will explain it in more detail.

FLOOR(X,#)

This rounds a value down towards zero, to the nearest multiple of significance. X is the multiple of significance to which will be rounded. Examples are FLOOR(SQUAREFOOTAGE,1000). The Excel API is used when calling the Floor function. If you search online for how the Excel Floor function works will explain it in more detail.

MROUND(X,#)

This rounds a value to desired multiple. X is the multiple to which will be rounded. Examples are MROUND(DISCOUNTPERCENT,10). The Excel API is used when calling the MRound function. If you search online for how the Excel MRound function works will explain it in more detail.

▣ YEAR(X)

This returns the current year as a number.

▣ ABS(X)

This returns the absolute value of a number.

▣ NEG(X)

This returns the negative value of a number.

HOW TO USE TAGS IN CALCULATIONS?

You can pull in data from the Wizard's mail merge databases into the line-item database using the TAG: statement.

Instead of using the CALC: or EXCEL: statement in the Value field of a line or global level field use the TAG: statement.

The TAG: statement takes the name of a mail merge database field or a system level field such as SYSTEMDATE or SYSTEMTIME.

When you type TAG: into the Value field a screen will display allowing you to select any of the allowable tags.

For example, to use the project date tag use TAG:ProposalNumber This can be an alternative to using an Increment datatype for a global level field for an invoice or quote number.

This can be used to pull in the name of a salesperson assigned to a project using the mail merge database systems tags that are set up in the Client Data, Company Data, etc. for a project.

HOW TO PUT MULTIPLE QUOTES IN A DOCUMENT?

While you can only use one line-item database attached to a project you can essentially add multiple quotes to a single project by using multiple categories in the same database.

The built-in Cost Summary/Invoice databases will have one or more categories already added. This allows you to have multiple lists of line items for products, services, etc.

If you want to split a quote across multiple pages of a single proposal using a single database can be customized as well.

In this situation you would add new categories to a database and assign the new categories to a different chapter template. For example, one category could be assigned to the Product Cost Summary chapter template and another category could be assigned to the Services Cost Summary chapter template.

HOW TO HIDE BLANK OR ZERO VALUE DATA FROM BEING OUTPUT?

This feature helps tailor the output of the global fields into the documents when data is not supplied which helps eliminate extra steps deleting unused global fields where they may or may not be used for any given project.

How it works is there is an extra checkbox in the add/edit screen for global fields called Invisible if Blank.

If you check that box, then when it comes time to output the line item data to a document and when it's the Wizard that is creating the table output (such as for the default cost summaries, invoices, etc.). If any global field marked Invisible if Blank that is a numeric datatype with a 0 value or a string-based data type that has an empty string value that entire global field will not be output to the document.

Examples of this that are part of the stock product and service database definitions are for the shipping, tax rate and discount fields. This allows you to hide those lines from the output when they are not being used.

This is a time-saving feature, so you don't have to manually delete unused global fields to cleanup your generated documents.

HOW TO FORMAT DATA FOR OUTPUT?

All data types have default formatting that will be applied when the data is output into a Word document.

Strings, numerics, integers, Booleans will not have any formatting applied by default.

URLs and Images also do not have formatting applied. However, images can have scaling applied as formatting to adjust the size of the images.

Entering a number for the formatting string of an Image data type will cause it to scale the images to that size. For example, the formatting string of 70 will scale images to 70% size of the table cell width. By default, an image is already scaled to the width of the table cell it will be put into. The formatting string will override that default scaling.

Currency data types will be formatted as standard US dollars and percentages will be output with a % sign.

You can apply custom formatting to alter the output. Examples are changing how dates and times are output or using foreign currency symbols, or how many decimals to display.

Formatting is applied by defining a format string. Format strings can be assigned to a data type globally in the Formatting tab in the Preferences. An example would be using Yes/No for all Boolean data types vs. 0/1.

You can also apply formatting strings to global and line-item level fields.

All formatting strings are processed by the Word API functions Format and FormatCurrency and FormatPercent. So, any information you can find online on how to use formatting strings with these functions you can apply to creating your own custom format strings. The Wizard does not validate formatting strings. Use the test options to test strings with data values and refer to the Microsoft information available for how to construct formatting strings.

See these Microsoft pages for descriptions of the formatting strings that are supported.

https://learn.microsoft.com/en-us/office/vba/language/reference/user-interface-help/format-function-visual-basic-for-applications

For example, if you want your date field to display as "January 20" then you would use a format string "mmmm d".

You can get ideas of how to structure format strings by searching across all format strings used in all the sample and example database definitions.

You will see a Format Suggestions dropdown next to the Format field that will show some common formatting strings for that data type. If you want to see all format strings for that data type used across all databases click the **Get Suggestions** button.

If you want to include text in the output of a data value, you should escape each character with the \ symbol as certain text characters by themselves are control characters.

For example, if you want to display the word "Zero" instead of the number 0 for a numeric or currency data type you would use a format string such as "$#,##0.00;($#,##0.00);\Z\e\r\o". This format string will display a normal currency value like $100.99 for a positive number, ($2000.43) for a negative number and the word Zero for a 0 value.

For currency you can use the format strings to output the numbers in foreign currency such as "€#,##0.00;(€#,##0.00);\Z\e\r\o". Using format strings does not do any currency rate conversion. When importing and exporting databases using Excel no formatting is applied either direction. The formatting string are only used when the Wizard is creating documents and outputting the database information into the documents.

The globally defined format strings will be used first, then if a format string is defined at line or global field level then that one will be used.

WIZARD TABLE OUTPUT VS. CUSTOM TABLES?

There are two ways to get the line-item database data into your Word documents.

The Wizard can do all the table creation and output for you based on the table settings and display setting configuration in the database definition. The Wizard will create Word tables based on the category line-item and global fields that are marked as visible and will create all the summary global variables based on the label names, alignment settings, etc.

If you need a more custom formatted output, you can pre-create the tables in templates and mark the locations where the data will go using tags. Then the Wizard will just drop the content into the tags using your custom table layout.

The easiest way to create your own custom table layout is to create a copy of the stock template that is associated with that category in the MyTemplates folder. The MyTemplates folder is a special folder in your Wizard installation where you can copy any of the thousands of Proposal Pack chapter templates into and the Wizard will use those copies when building your documents. This helps preserve the integrity of your stock template library and keeps all your customized templates in a single location.

When using the MyTemplates folder with the line-item database system because you can have multiple different databases in use you may need multiple copies of the same template, one for each different database. Because of this the database code is prefixed onto the front of the custom template file name.

For example, you are using the Cost Summary template which is the CostSummary.docx file. And your database code is QDB13. You would copy the CostSummary.docx as QDB13-CostSummary.docx in the MyTemplates folder.

Then whenever you build a proposal using that database definition the QDB13-CostSummary.docx file gets used instead of the stock CostSummary.docx. You can then edit this custom file and insert your own Word table and insert tags into the table where all the data will be inserted.

Using the Quote Templates tab in the Preferences click the **Quote Related Templates** button. This will give you options for copying the stock template into the MyTemplates folder and it will do all the work to name the file correctly and you can have it drop in a preformatted table with tags to get you started easier. Highlight the Cost Summary (in this example, or whatever template you are working with) and click the **Copy to MyTemplates** button and check the Add Tables with Quote Tags. If you do not check the box, then only high-level tags will be added which will be for the Wizard doing all the table creation.

If you need to associate a template that is not already setup in the database for use with the line-item database, you will first need to add it using the **Add New Template** button. There are about 60 templates already set up for use with the line-item quote system, however any of the thousands of Proposal Pack chapter templates can be added.

When there are multiple categories being output to the same page, they may all be combined into a single table or split into different tables. If there are any differences in the number of columns between tables, they will always be output as separate

tables with a couple lines of white space between them. If you want all your output into a single table, then create a custom table layout using data tags in a copy of chapter template in the MyTemplates folder.

Some table configuration options are found in the styles screen such as defining cell padding, cell borders, color schemes, etc.

By default, the Wizard will create a single Word table for all categories on a template page if every category has the same number of fields. If any category has a different number of fields then the Wizard will split each category into a separate Word table and any header/summary global fields will be put into separate Word tables.

You can force the Wizard to split all categories into their own individual Word tables by checking the Split Multi-Category Tables box in the line item database Settings tab.

Splitting tables can make custom editing of the tables easier and can add visual white space between tables making them easier to view.

WHAT TAGS GO IN TABLES AND DOCUMENTS?

Tags are the mechanism for how you get your data into a Word document.

For categories and their line-items, that data must go into a Word table. Global fields can be put into Word tables or directly into the body of any text in the Word document.

The highest-level tag you can put into a Word document is **<<Q-QUOTE>>**. This tag causes the Wizard to drop in everything associated with that page and the Wizard creates all the table output.

To have the Wizard only output a specific category and its line-items and the Wizard does the table creation use a tag like **<<Q-QUOTE-CATCODE>>**. The CATCODE is the actual code identifier for the category. If there are summary global fields that go along with the category such as subtotals, etc. you also must add a tab for the summaries **<<Q-QUOTE-SUMMARY>>**. If there are global fields that are defined as header level fields also add the **<<Q-QUOTE-HEADER>>** tag.

To output global level fields anywhere in the document, use a tag like **<<Q-GLOBALCODE>>** where GLOBALCODE is the code for that field. For example, you created a grand total field with the identifier GRANDTOTAL, the tag would be **<<Q-GRANDTOTAL>>**.

To put line-level fields into a Word table the category code and line-item level field codes are always used together. For example,

a category PRODUCTCAT with a line-item level field AMOUNT you would use the tag **<<Q-PRODUCTCAT-AMOUNT>>**.

You can control the table output in either situation (Wizard created tables or user created tables) to create a new Word table row for every line item or use one table row for all line items. This is controlled by the Multi-Table Rows checkbox and use of <<Q- vs <<QS- tags.

Using only one table row for all line items in a category will reduce the size of the table needed to help keep everything on a single page for example, however you should only use this option if your data values for any single row will not wrap to the next line. This will cause different table columns to be misaligned.

This is an example of a user created table for a schedule that has a category CATTL1 with 4 line-item fields and 3 global fields being output into a custom table.

Depending on the Multi-Table Rows checkbox in the Table Settings screen this will cause the Wizard to create 1 table row per line-item row or only use a single Word table row.

Task	Start Date	End Date	Duration
<<Q-CATTL1-TASK>>	<<Q-CATTL1-STARTDATE>>	<<Q-CATTL1-ENDDATE>>	<<Q-CATTL1-DURATION>>

Start Date	<<Q-TLPROJSTARTDATE>>
Completion Date	<<Q-TLCOMPDATE>>
Days to Complete	<<Q-TLCOMPDAYS>>

You can see all the available tags to help ensure you don't make spelling mistakes by clicking the Definition Info > View Template Tags button. This screen also allows you to select a tag and if you only have a single Word document open will insert that tag for you into the document. You can also see the tags for each field in the various Preferences screens.

Expandable tags for category line items can only be used within Word table cells. Other fields can be used in the body text of a document. Putting tags inside of shape objects and text block objects is not supported.

The single cell value tag <<Q-CATEGORYCODE-FIELDCODE[:R#]>> cannot be used within a Word table it can only be used in the body text of a document.

<<Q[S]-CATEGORYCODE-FIELDCODE[:R#]>>

If using the :R# to pull the value from a specific line-item row do not us the QS version of the tag, only the Q version. This is a category field tag used within a Word table cell that will be expanded into all line-items. Adding the :R# turns it into a single specific row's value that can be used in the body text of the document.

<<Q-FIELDCODE>>

This is a global field level tag that can be used in Word table cells and in the body text of the document.

<<Q-QUOTE>>

This tag will cause the Wizard to insert the entire set of quote tables for all categories associated with the template its inserted in. A summary table will also be output for any global fields associated with the output categories.

<<Q-QUOTE-CATEGORYCODE>>

This tag will cause the Wizard to insert only the Word table for that category.

<<Q-QUOTE-HEADER>>

If any global level fields are associated with a category as header fields this will output a table for those fields in front of the category table.

<<Q-QUOTE-SUMMARY>>

If any global level fields are associated with a category as summary fields this will output a table for those fields after the category table.

<<Q-CATEGORYCODE>>

This will output the category label text and it can be used in a Word table cell or in the body text of a document.

SINGLE VS. MULTIPLE TABLE ROWS FOR LINE-ITEM DATA?

By default, the Wizard will create a new table row for each individual line-item row. This is the safest option especially if a table row column has text that can wrap to the next line. This will keep all rows easy to read and lined up.

However, this can create tables that are longer and may fall onto another page due to the extra margins added for each Word table row.

You can cause the Wizard to only use a single Word table row for a category's table line-items by turning off the Multi-Table Rows checkbox in the database definition's Settings tab. This will affect all categories.

If you have a more complex database setup where you want one category to use one Word table row per line-item row but another category to use one Word table row for all line-item rows, then you need to use a custom table and tags.

First you must uncheck the Multi-Table Rows checkbox in the settings for the database. This will cause all tables to use a single row for all line items. Then create a custom Word table for each table you want to have one Word table row per line-item and use the "<<QS-" tags. In this case you add a custom Word table to the template that will go in the MyTemplates folder and use "<<QS-" tags instead of "<<Q-" tags.

Task	Start Date	End Date	Duration
<<QS-CATTL1-TASK>>	<<QS-CATTL1-STARTDATE>>	<<QS-CATTL1-ENDDATE>>	<<QS-CATTL1-DURATION>>

By using the "<<QS-" versions of the tags that will tell the Wizard to expand that Word table by another row each time a line-item row is output.

All tags used across a Word table like this must be "<<Q-" or "<<QS-", they cannot be mixed using both types.

If your line-item data does not fit within the width of the Word table cell and wraps to the next line then this will cause the line-item columns to be mismatched when some wrap and others do not.

It is up to you to properly design your custom Word templates and how your data is structured to ensure it all outputs correctly.

EXAMPLE USING DEFAULTS OR <<QS- TAGS:

Task	Start Date	End Date	Duration
Start project	August 3	August 8	6
Complete Milestone #1	August 10	August 15	6

EXAMPLE WITH MULTI ROW OFF USING <<Q- TAGS:

Task	Start Date	End Date	Duration
Start project Complete Milestone #1	August 3 August 10	August 8 August 15	6 6

EXAMPLE WITH BAD DATA WRAPPING:

Task	Start Date	End Date	Duration
Start project, assign team members and start gathering resources Complete Milestone #1	August 3 August 10	August 8 August 15	6 6

WHAT ARE THE PREMADE DATABASES?

The Wizard comes with many premade database definitions which are used for different purposes however they all use the same structures.

The most obvious premade database definitions are the ones you will see in the drop-down list at the top of the Line Item Quote and Preferences screens. These premade databases are all variations of the most common type of databases which are used with the Cost Summary/Invoice chapter templates for product and/or service proposals.

About 100 of the 200 included Sample Proposals use custom database definitions. You can load any of these from the Preferences screen or when you import a Sample Proposal into your project. Once a Sample Proposal's definition is loaded you can use it as your own database definition. Note the Sample Proposal database definitions are mostly customized so for use with your own proposals they may require some customization which is an Expert Edition feature.

There are also about 60 chapter templates that are database enabled with their own unique database definitions. These chapter templates are ones such as the Budget, Time Line, Project Schedule, Cost/Benefit Analysis and so on. Since these chapter templates are included in countless ways with other chapter templates which may or may not be other ones with database definitions this means that a custom database may need to be created on-the-fly. This happens automatically when you add these chapter templates to your project. The Wizard will append

these chapter database definitions to whatever database definition your project is using. You can also manually load these database definitions from the Preferences screens so they can be customized.

Expert Edition users will also have access to the library of example database definitions. Since these databases are intended to show how to use different features of the database system and are not meant to be production use databases, they are not available to Novice Edition users. You can load the Example databases when creating or customizing a database to see how different tasks can be accomplished.

WHAT WILL THE DATABASE OUTPUT LOOK LIKE?

To see what any of the premade, sample and example databases will look like when your documents are created there are PDF examples available to preview.

Once you highlight any database that has a preview available in a drop-down menu look for a View Sample button next to the drop-down menu.

Clicking the View Sample button will show you a preview.

The previews are illustrated with various design themes. Your purchased design theme will be how yours will look visually (i.e., colors and logos). The overall structure of the table layout is what you want to look at.

Using custom templates in the MyTemplates folder or using the Expert Edition features for altering the table output allows you to customize the design of the table output.

HOW TO USE EXCEL FOR ALL CALCULATIONS?

While the Wizard has features for importing/exporting from Excel spreadsheets to aid in data entry the default is that only static data values are imported into back into the Wizard and the Wizard's calculation engine is used for all calculated values.

There is an option to only use the Wizard for outputting the data while using Excel for all the calculations. This gives you more capabilities if you need to use custom Excel calculations that the Wizard is not capable of doing.

You still need to use an Excel spreadsheet that is in the format the Wizard's line-item databases system can read so it is best to export your definition to an Excel spreadsheet first.

Then customize that spreadsheet and add your line-item data. You will have to keep all the line-item and global level fields in the same location. However, you can customize the calculations and add new fields and calculations elsewhere in the spreadsheet as needed to facilitate your custom spreadsheet.

When importing the Excel spreadsheet back into your project check the box **Override Wizard's Calculations with Excel's**. This will mark all the line-item fields as overridden and will import all calculation fields as static data values.

The Wizard will then not process any of its calculations and will output all your data values that were pulled in from the Excel

spreadsheet as static data values. The Wizard will still apply its custom formatting strings to the output.

PREMADE AND PRELOAD LINE ITEMS

Premade and Preload line items can be added to the database definition.

Premade line items are used when you want to create a dropdown list of selectable line items to load your projects more efficiently during data entry. Selecting a premade line item will populate your line-item screen instead of needing to manually entry every value for each new line item.

Use Premade line items when your line items are already known ahead of time such as a list of products or services.

Preload line items are used when you want one or more line items to always be automatically added to every new projects line item database. This can be even more efficient than using Premade line items. Preload line items are essentially Premade line items that are automatically added to each new project.

Use Preload line items when each new proposal always uses the same line items or base set of line items.

IMPORT/EXPORT DATA USING EXCEL

The Wizard's line item database system allows for importing and exporting data using Excel spreadsheets.

While the spreadsheets must be in a format that the Wizard understands such as having each category on its own sheet and tagged columns and cells for the line item and global level fields the Wizard can create those spreadsheets for you.

There are two places that Excel spreadsheets are used for importing/exporting data.

The first is in the Preferences. You can export your database definition to a variety of locations such as the MyProjectFiles folder, the current project folder, or a temporary folder.

If you export into the MyProjectFiles folder then that spreadsheet will also be copied into the project folder for every future project. Only select this option if your intent is to have a base spreadsheet you will use for every project. This is a special use case, and you should not normally need to export to this folder.

If you export into the current project folder, then that will have the same effect as exporting the spreadsheet from within the project screen. You will then be able to edit the spreadsheet and import it back into your project. This is typically only done when you have a lot of line item data to add and using a spreadsheet will be more efficient than adding the line item data one line at a time in the data entry screens.

If you export to a temporary folder this is a good place to save the spreadsheet, so it does not impact any specific project or future projects. When exporting to a temporary folder this makes it easy to import the edited spreadsheet back into the Premade items screen. This option saves time creating your premade line item data vs manually entering all line items via the data entry screens.

The second place where you find import/export options is in the line item database screens when setting up your project. When exporting an empty spreadsheet, you can tell it how many dummy line items to create. This is useful to help you get all the calculations created for however many line items you plan on creating. Otherwise, you may need to copy/paste calculation cells in the spreadsheet which may not always recreate the calculations correctly due to how Excel works when copying cells with calculations.

Another option for importing spreadsheets is to use Excel for all the calculations. Normally when importing a spreadsheet only the static data cells are imported back in, and the calculations are ignored as the Wizard recalculates those fields itself. If you for some reason need custom calculations that only Excel can perform, and you have customized the calculations in the Excel spreadsheet you can import the calculations as static data items. This way the Wizard imports all static and calculated cells as static values and does not recalculate anything itself. This gives you the ability to use all of Excels calculation features and only use the Wizard's line item database for the output into the documents.

HOW TO INTERNATIONALIZE YOUR DATA?

The main things that would be changed for international use would be how currency values are displayed and how tax rates are applied.

Currency values may be automatically displayed in alternate currencies when you change the default currency in your project. The line-item database output will then be formatted based on your projects selected currency.

Changing the default currency however will not affect the output when custom formatting strings have been defined in the database. If a custom formatting string has been set in the line-item database using a $ symbol that will be used even if the projects currency type has been changed to an international currency. You may have to manually adjust any custom formatting strings as well in the line-item and global level field definitions.

For tax rates, this is dependent on how the tax calculations are made in the database definition and with the Expert Edition can be customized to match any needed configuration such as GST/PST, taxes on shipping or not, compounded tax on tax, etc.

TROUBLESHOOTING DATABASE PROBLEMS

First test that your database definition does not include any errors using the testing screen in the Preferences.

Fix any problems noted in the report. Most errors are the result of a CALC: calculation not written correctly.

If the database passes without errors check that your input data is valid. If you have overridden any static fields with calculations or calculated values with static data, try removing the override and seeing if the custom data value was causing the problem.

If the input data is valid also check that any custom formatting strings being applied to the raw data are written correctly.

You can try exporting your database to an Excel spreadsheet as the Wizard will recreate all your calculations and custom user functions. Test that the data values are all correct in the Excel spreadsheet and double check the calculations. The use of the spreadsheet will remove all data formatting and will help diagnose a format string issue.

Compare the output in the Word documents to the Excel spreadsheet and see if it all matches.