**Bundles of All Shapes and Sizes**

Creating a quote means choosing products, and some products must be sold with other products. This fact brings us to a central concept in Salesforce CPQ: the bundle. A bundle is simply a group of products we know should be sold together. When the sales rep chooses to sell the bundle, all the related products come along for the ride. There are three types of bundles. We use a food analogy to describe each type.

* **Static bundle**: These bundles always have the same products together, in the same quantities, with no changes allowed. Imagine a BLT sandwich. We always need bacon, lettuce, tomato, and two slices of toast. Otherwise, it’s not a BLT anymore!
* **Configurable bundle**: This bundle can be customized to your liking, with some limits to prevent impossible configurations. It’s like a build-your-own burrito. You choose the type of beans you want, the heat of the salsa, and if you want sour cream or not. Each customer gets a burrito with just the right fillings, which are probably different from the fillings chosen by the next customer.
* **Nested bundle**: This is a bundle inside another bundle. You might have a configurable hamburger bundle nested inside a combo meal bundle. In Salesforce CPQ, you can nest bundles as much as you want, but we recommend only going one or two levels deep.

## Control How Reps Configure Bundles

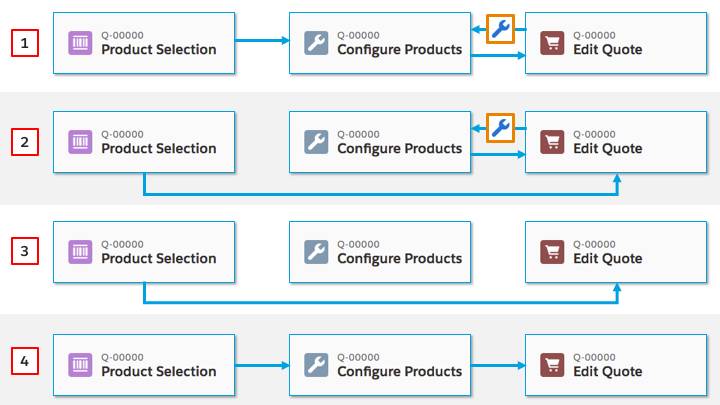
Giving sales reps the ability to configure bundles is a great way to make sure they sell the right products together, while also allowing some variation in how they sell. Some bundles are configured almost every time they are sold, while others are only configured occasionally, or maybe never. Salesforce CPQ gives admins the option to choose when and how bundles are configured throughout the sales process. You can also choose how bundles appear and behave in the Quote Line Editor, and what happens when you select more than one bundle to configure at a time.

## Configuration Type and Configuration Event

You can decide when the sales rep gets to configure a bundle. With the laptop bundle you configured in the last unit, you were prompted to make your choices immediately after selecting the laptop. Two fields on the laptop product record control when and how the user can configure the bundle: Configuration Type and Configuration Event.

Here’s how these two fields affect how sales reps interact with bundles.

| **Configuration Type** | **Configuration Event** | **Experience** | **Scenario** |
| --- | --- | --- | --- |
| Allowed | Always | Show configuration page immediately after selection, allow reps to reconfigure [1] | Bundles that often need to be customized for each customer |
| Allowed | Edit | Don’t show configuration page after selection, but allow reps to reconfigure [2] | Bundles that only occasionally need customization |
| Disabled | n/a | Never show configuration page [3] | Bundles that are never customized |
| Allowed | Add | Show configuration page only once [4] | Bundles that inform later decisions in the sales process, such as what configurations are allowed for the next bundle that’s added; this setting is rarely used |



If you have a nested bundle that sales reps have to configure, set the Configuration Type to Required. A red line appears next to the required bundle, much like the red line you see next to a required field. When the sales rep configures the nested bundle, the red line goes away, and they can save the outer bundle to the Quote Line Editor. If they never configure the nested bundle, they receive an error message when they try to save the outer bundle.

## Multiple Bundles

Sometimes a sales rep chooses two bundles from the product selection page, and both bundles need to be configured. When this happens, the configuration page shows an expandable bar on the left. When expanded, the panel displays a list of configurable bundles. By default, clicking a bundle from the sidebar shows just that one bundle.

However, you can see all bundles at once by changing the Multiple Bundles View package level setting to Classic. With this mode, the sidebar acts more like a bookmark bar, scrolling the page to the selected bundle. Find package level settings in Setup by entering Installed Packages in the Quick Find box, then click **Installed Packages**. Next to Salesforce CPQ, click **Configure**.

## Visualize Product Hierarchy

To make bundles easier to distinguish in the Quote Line Editor, set the Visualize Product Hierarchy package level setting to True. This setting indents product names in quote lines that represent options, so that you can easily see that they’re related to the lead product. If you signed up for the special Developer Edition org with Salesforce CPQ, you can see this setting in action.

If you don’t want product names to be indented, just uncheck that setting. The quote lines for the options still have an icon next to them, and hovering over the icon tells you which quote line is the lead product.

## Keep Bundles Together

Typically, when a rep uses groups to organize their quote lines, they want all products within a bundle to appear in a single group. Furthermore, they want the entire bundle to stay together when moved into a different group. The Keep Bundles Together package level setting is enabled by default, but if you want to let reps split bundles across multiple groups you can disable that setting. Just remind sales reps to be careful not to split bundles when it doesn’t make sense.

Salesforce CPQ lets you, the Salesforce admin, control the experience of adding bundles to a quote so that sales reps have the easiest time possible putting their quotes together. In the next unit, we look at how admins create such cool bundles in the first place.

## Product Options Basics

A bundle is really just a bunch of products that we know should be sold together. For example, you might want to sell a printer, toner, paper, and two paper trays together. Those are all just products, much like the ones you’d see in any org. The magic happens when CPQ knows they’re supposed to be sold as a set.

You start building a bundle by choosing a lead product, one that’s always part of the bundle no matter what. It’s usually the most important piece of the bundle. In our printer bundle example, the printer itself is the best choice for the lead product. All of the other bundle products are like followers, tagging along whenever the printer is put on a quote.

After you decide on a lead product, how do you specify which products should tag along? Use a Product Option record. Think of the Product Option as the leash between a dog and the dog-walker. Without the leash, the dog doesn’t stay part of the pack for very long. With the leash, the dog goes where the dog-walker goes.

**Order and Selectability**

A Product Option (for simplicity, we’ll just call this an option from now on) does more than just connect a follower product to the lead product. It also describes how the follower behaves in the bundle. Here are a few option record fields that control option behavior.

* **Number**: Sorts the options on the Configure Products page. The lower the number, the higher in the list the option appears.  
  Tip: Number your options in increments of 10. That way, if you need to slip a new option between the first (10) and second (20), you can number it 15 without having to renumber everything.
* **Selected**: Selects the option by default. Choose Selected for an option when you want to give your sales reps guidance about what’s typical for a configuration.
* **Required**: Selects the option and prevents sales reps from deselecting it. The selection box is grayed out.

## Quantity Controls

You can use Options to control what changes your sales reps can make to the quantity of products within bundles. The table below shows how to use Quantity, Quantity Editable, and Min Quantity fields on the option to achieve different goals.

| **Goal** | **Quantity Field** | **Quantity Editable Field** | **Min Quantity Field** |
| --- | --- | --- | --- |
| Always require a quantity of 3; no changes allowed | 3 | False | <blank> |
| Suggest a starting quantity of 1, and let sales reps change it | <blank> | A blank quantity field causes CPQ to leave quantity editable, so the Quantity Editable field is ignored | <blank> |
| Suggest a starting quantity of 5, and let sales reps change it | 5 | True | <blank> |
| Suggest a starting quantity of 8, let the sales rep change it, but require at least 6 | 8 | True | 6 |
| Suggest a starting value of 10, and let the sales rep change it to anything 10 or greater | <blank> | A blank quantity field causes CPQ to leave quantity editable, so the Quantity Editable field is ignored | 10 |

The Max Quantity field is similar to Min Quantity, putting an upper limit to the quantity value allowed for the option.

## Summary

As we’ve seen, creating a bundle is really a matter of making connections between related products and configuring the behavior you want your reps to experience. This is just the beginning of a bigger story. In the next unit, we take a look at some other things we can do with options to make bundling even better.

## Option Type

When you build a bundle, one of the most important things to decide is how to handle option quantity while on the Quote Line Editor. Sales reps can typically change quantity on the Quote Line Editor, but if you’re trying to control quantities within the bundle you may not want them to make changes. The Option Type field on the option tells Salesforce CPQ exactly what to do with quantity.

In the table, you can see that even though the quantity of the option is always 2, and the quantity of the bundle is always 3, the quantity of the quote line behaves differently for every Option Type.

| **Option Type** | **Behavior** | **Example** | **Quantity on the option** | **Quantity of the bundle** | **Quantity of the quote line** |
| --- | --- | --- | --- | --- | --- |
| Component | CPQ multiplies the option quantity by the bundle quantity, and locks the result | You always include 2 batteries for every flashlight bundle you sell | 2 batteries | 3 flashlights | 6 batteries (not editable) |
| Accessory | CPQ uses the option quantity regardless of bundle quantity, and locks the result | You always include exactly 2 master keys, regardless of how many door/lock bundles you sell | 2 master keys | 3 doors | 2 master keys (not editable) |
| Related Product | CPQ uses the option quantity regardless of bundle quantity, but allows changes after configuration | You usually include 2 reams of paper when selling printer bundles, but it’s okay to sell more without requiring reconfiguration | 2 reams of paper | 3 printers | 2 reams of paper (editable) |

Note: Be careful when using Related Products, since sales reps can change their quantities in the Quote Line Editor. You can set up a bundle to control what changes the sales rep can make during configuration, but those controls are not in effect after configuration on the Quote Line Editor.

## Quote Line Visibility

Now imagine that we have a printer instruction manual that we need to include in the printer bundle. By default, the printer instructions appear on the Configure Products page, the Quote Line Editor, and the final output document.

But what if we don’t want it to appear in the Quote Line Editor or the output document? After all, the instruction manual isn’t ever discounted. Thankfully, there’s a product option field for just this scenario. The Quote Line Visibility field on the option is a picklist that determines when options are seen after configuration. Here are the settings.

* **Document Only**: Hides the item from the Quote Line Editor, shows it on the output document.
* **Editor Only**: Hides the item from the output document, shows it in the Quote Line Editor.
* **Never**: Hides it from both Quote Line Editor and the output document.
* **Always (or blank)**: Shows item in both Quote Line Editor and output document.

## Summary

In this unit, you learned how to set up options to control their visibility after configuration and determine how Salesforce CPQ handles option quantities on the Quote Line Editor. Next, we investigate how to handle bundles that have lots of options, and bundles that limit how many options reps can select at one time.

You can add lots of options or just a few to a bundle. Because a single long list of options isn’t very user friendly, you can use the Feature bundling tool to group similar options and limit how many different options the sales rep can choose from a particular group.

## Creating Features

Features give structure to bundles by grouping similar options, which then appear in separate sections on the configuration page. Bundles can have any number of features, and features can have any number of options. The Laptop bundle from the beginning of this module has three features: Processor, Memory, and Storage.

## Maximum Options

If a feature has a Max Options of 1, meaning your reps can only choose one option for that feature, CPQ is smart enough to show radio buttons instead of checkboxes. This makes it easier to switch between options (one click instead of two), while also giving the sales rep a visual cue about what they’re allowed to choose in the bundle.

## Summary

As you can see, features improve the user experience by organizing options and acting as a convenient place for help text. They can even contribute to accurate quoting by controlling how many options a sales rep may select for a given feature. In the next unit we see ways to change the look and feel of configuration pages.

**Option Layout**

The Option Layout field on the lead product determines the layout and user experience of configuration pages for bundles that use features. There are three values for Option Layout: sections, tabs, and wizard.

* **Sections**: Features are listed in boxes, one after the other. Sections are the default layout when the Option Layout field is blank.
* **Tabs**: Each feature has its own tab, arranged horizontally across the page.
* **Wizard**: Each feature has its own tab, and users navigate through tabs from left to right. Users can’t skip any tabs.

## Configuration Field Set

Features show five columns of information by default: Quantity, Product Code, Product Name, Product Description, and Unit Price. You can display different columns with field sets.

For example, consider the Storage feature in the Desktop Computer bundle. You can’t tell by looking at the configuration page that there’s a limit to how many hard drives can fit in the computer. But if we display the Max Quantity field in the layout, sales reps know without guessing.

One last thing about Configuration Field Sets: You can only put fields from the Product Option object into the field set. If you want information from the Product record to appear, create a formula field on the Product Option object that returns the value pulled from the Product field.

## Summary

CPQ does a great job making the configuration experience intuitive for your sales reps, and with a few small tweaks, you can make it even better.

## Package Product Description

The Package Product Description field is similar to Package Product Code, but you usually use this field to give information to the customer about the bundle in the form of friendly text. Using the Component Description and Component Description Position fields, you can concatenate whole sentences drawn from the selected options to construct a paragraph. These fields operate in the same way as the Package Product Code fields, using placeholders such as {1} in a Configured Description Pattern field.

## Summary

You can use configured code and description patterns to make it even easier for your sales reps to put together a quote. They can add all the right parts in just a few clicks, and the right product descriptions are ready to go. We now have a truly hassle-free configuration experience. Good job, admin!