functional requirements

basics

Requirement Name:	Sales Order Configurator	**Project:**	
Client:		**Client PM:**	
Muse System PM:	Steven C. Buttgereit	**Muse Systems Ref #:**	
Muse Systems SOW #:		**Document Date:**	

overview

PURPOSE/GOALS

Client is in the business of selling complex lab equipment to customers that have unique needs and requirements. In order to best meet the needs of its customers, Client sells some products as configurable "systems" or "bundles" (collectively Sales Kits) where many individually salable parts are priced and sold collectively. These sales kits allow Client customers simplicity in ordering and provide Client sales staff navigation through valid combinations and options.

Today, xTuple ERP has a simple, static, "shopping list" style sales kit item type, but as-is this facility would require Client customers to be faced with many more selling items or force sales staff to deal with greater complexity in assembling sales orders without system support. The bottom line result is that xTuple ERP at Client, as-is, may increase new sales kit definition costs a relatively minor amount (different, less efficient sales staff documentation), but may well create a significant additional transaction cost in terms of customer satisfaction, sales order entry processing, and error correction activity.

Therefore, our goal is to bridge this gap by expanding the sales kit functionality in the xTuple ERP application. To be successful we must accomplish the following goals:

1. The solution must not reduce Client's ability to process sales kits or cause negative customer visible changes to Client's offerings.
2. The solution must become part of the xTuple ERP core product offering on completion and maintained as such.

As such we will pay close attention to the flexibility required, steps required to operate sales kits effectively, "general market" ERP design suitability, and consistency with the xTuple ERP application user experience.

SUMMARY OF PROPOSED SOLUTION

We will develop a new more advanced sales order kit feature set, intended to replace the existing xTuple ERP sales order kit ordering capability. The following areas of development are currently foreseen:
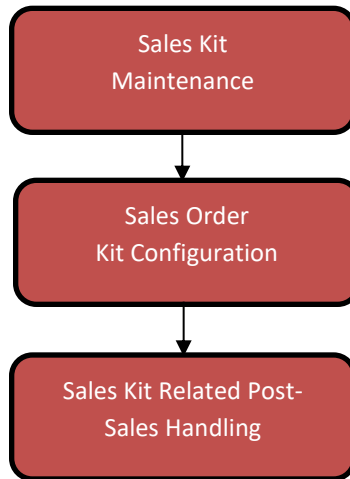
1. A Sales Kit Maintenance form, and related sub-forms, specifically designed to define and maintain sales order kit options.
   a. This new functionality will replace the current Bill of Materials based approach.
   b. Access to this form will be via the Item form's "Materials" button, and elsewhere as determined appropriate during the project (e.g. main menu).
   c. This form set will also support maintaining Sales Kit definitions on an order by order basis (quote and sales order).
2. A Sales Order Kit Configuration form designed for sales staff to manage the selection of options and to ensure that sales kits are valid for specific sales orders.
   a. Access to this form will be via the Quote Item form, Sales Order Item form, Return Authorization form, and other contextually appropriate places in existing xTuple forms as identified during this project (e.g. right click context menus).

While these are the primary focuses of our development, the points above are not necessarily its limit. Other, supporting functionality is expected in the back-end processing code, permissions & configuration, and the user interface.

Additionally, this document defines the broad boundaries, approaches, and requirements needed to bring a final implementation of configurable sales kit functionality to reality. However, it does not make unchangeable proscriptions for what that final product will be. We fully expect that during the course of the actual implementation that continual evaluation of plans described in this document will be made and that changes of direction or actual implementation will be necessary and desirable as more information is processed by the project team. This will include responding to functionality behavior in practice, new insights obtained in the course of the project, and/or missed or underappreciated facts regarding the sales kit functionality being addressed. In all cases the project team may make ad hoc modifications to these requirements as it sees fit, with the understanding that the nature of the change may materially impact the delivery of the project in both time and cost.

business process

At the highest level, there are three primary areas of concern related to this change to Sales Kit functionality:

```
┌─────────────────────┐
│     Sales Kit        │
│    Maintenance       │
└─────────────────────┘
           │
           ▼
┌─────────────────────┐
│     Sales Order      │
│  Kit Configuration   │
└─────────────────────┘
           │
           ▼
┌─────────────────────┐
│  Sales Kit Related Post- │
│    Sales Handling    │
└─────────────────────┘
```

Sales Kit Maintenance is the creation and updating of Sales Kits, where the definition of what constitutes a Sales Kit occurs. Sales Order Kit Configuration deals with adding Sales Kits to orders and selecting their options. Finally Sales Kit Related Post-Sales Handling deals with the shipment, invoicing, returns, and credits that happen after the Sales Order is created and made ready for shipping.

Our efforts here are to introduce new functionality to the Sales Kit Maintenance and Sales Order Kit Configuration areas in such a way as to meet Client needs while allowing all the existing functionality in Sales Kit Related Post-Sales Handling to remain largely unchanged. The Sales Order Kit Configuration process will take an aggregate of all the tangible items in the configured Sales Kit and add those as sub-items, re-using the existing Sales Kit functionality, to drive downstream processes such as shipping and invoicing.

The only known deviation from this general approach in the Sales Kit Related Post-Sales Handling will be Return Authorizations, where existing functionality allows for the return of Sales Kits without necessarily referencing a prior sale.

definitions

The following definitions and terms will be used throughout our business process descriptions and the rest of the document.

- **Sales Kit**: Is an xTuple ERP item type whose purpose is to define a grouping of salable items as a single unit that is itself salable and priceable. The constituent items of a sales kit are intended to be individually apparent to the customer, though still be associated as being sold as part of the sales kit.
- **Legacy Sales Kit**: Refer to the sales kit functionality of xTuple ERP prior to the implementation of this functional requirement.
- **Sales Kit Type**: Indicate pre-defined user interface behaviors to aid in more efficient and more accurate sales kit and sales order data entry. The supported Sales Kit Type values are:
  - **Simple**: A basic sales kit that implements the same basic behavior as the legacy xTuple ERP Bill of Materials based sales kits. All items in the kit are required with a selling quantity of one or more. No optional items or quantities are permitted. The only difference between the "Simple" sales kit and the legacy sales kits is that a kit item may also be a sales kit whereas the legacy sales kit disallowed such nesting.
  - **Select One**: A sales kit from which only one of the constituent items will be selected on any order transaction. All member items are considered optional, though one option must be selected at order time.
  - **Mix/Match**: A sales kit which allows required items, optional items, or optional quantities.
- **Real Items**: "Real Items" as used in this document are regular Items which are salable and of an Item Type other than "Kit".
- **Invalid/Valid Sales Kits**: A Valid Sales Kit is one that includes only real items or other Valid Sales Kits. Any other Sales Kit definition is considered invalid.
- **Complete/Incomplete**: Used to describe the state of data entry for Sales Kits added to Sales Quotes/Sales Orders. An "Incomplete" Sales Kit Order Item is one where not all required options or quantities have been added to the order. A "Complete" Sales Kit Order Item is one where the selected quantities and options satisfy the requirements of all Line Types (defined below) and Sales Kit Types for all Sales Kits included in the top-level Sales Kit Order Item.
- **Required Quantity**: At the Sales Kit Item level Require Quantity is the minimum number of units that must be ordered for that item. Required Quantity is the default quantity for adding Sales Kit Items to the target order and it is also the quantity that is assumed to be included in the Sales Kit price.
- **Total Required Quantity**: At the Sales Kit definition level, it is the minimum quantity of units overall that must be ordered for the Sales Kit to be considered "Complete". For example, a "Select One" Sales Kit has a preset Total Required Quantity of one and all items allow a Required Quantity of 0 and a maximum of one. In this way, the Select One kit must have an item selected in an order to be considered Complete.
- **Up-To Quantity**: The maximum quantity of a Sales Kit Item that may be sold in the context of the Sales Kit. If the Up-To Quantity is greater than the Required Quantity, an option number of units of the Sales Kit Item may be added to the order. This value may not be less than the Required Quantity. Up-To Quantities above the Required Quantity are assumed to be optional and may incur Addon Pricing for each unit added to an order above the Required Quantity.
- **Total Up-To Quantity**: At the Sales Kit definition level, this sets a maximum on the total units from all Sales Kit Items defined in the Sales Kit. This value may not be less than the Total Required Quantity.

- **Line Type**: Defines the behavior of each line in a Sales Kit. The following Line Types are currently anticipated:
    - o **Require**: The item must appear on the Sales Quote/Sales Order in the identified quantity. The minimum Required Quantity is one and there are no optional additional quantities permitted. These items will automatically be added to the order when the parent Sales Kit is added to the order. It is assumed that the price of the items is included in the price of the Sales Kit so no additional price schedule may be set. This line type is available in "Simple" and "Mix/Match" Sales Kit Types.
    - o **Select Option**: Used to identify an item as an available option in a Sales Kit of Sales Kit Type "Select One". The line quantities are pre-set to be either none or one unit of the option. An Addon Price Schedule may be identified for the line (e.g. premium options). This line type is the only available line type in Sales Kit Type "Select One" and is only available to that Sales Kits of that type.
    - o **Range**: Used only Sales Kit Type "Mix/Match". This allows the user to set a range of quantities for the option. The minimum Required Quantity is zero and the Up-To Quantity is not arbitrary limited, so long as it's greater than then Required Quantity. Any non-zero Required Quantity is assumed to be priced into the Sales Kit Item itself and any quantities above the Required Quantity are optionally priced per an identified Addon Price Schedule.
- **Addon Price Schedule**: This is a normal List Price Schedule which includes unit pricing for any optional items that may be included in a Sales Kit. Optional items are any Sales Kit Item quantities added to an order that exceed the Required Quantity of the Sales Kit Item in question. Addon prices in an order context are added to the price of the top-level Sales Kit's regular price, but prior to discount pricing being applied.

sales kit maintenance process

The process of sales kit maintenance is simplistic but requires some basic understanding. The supported processes are:

Sales Kit Creation

1. Define the Sales Kit. (not system)
    a. A need for a new sales kit is identified by staff responsible for managing and defining new products.
    b. The business requirements for the new sales kit are identified, including its required and optional components, and optional pricing requirements.
2. Perform Sales Kit data entry (system)
    a. Ensure that all "real items", items that are independent salable items that are not themselves Sales Kits, exist in the system.
    b. Begin a new item of type "Sales Kit" and start entering data for the bottom most level kits required.
    c. Click the "Materials" button on the Item form: the Sales Kit Maintenance form will open.
        i. Enter the type of the sales kit. Items cannot be added until the type is determined.
        ii. Enter the constituent items of the kit, filling in the appropriate details for the Sales Kit Type and the Line Type of the line being entered.
            1. Open the Sales Kit Item Maintenance form by clicking the "Add Item" button of the Sales Kit Maintenance form.
            2. Note that only "real items", meaning items that are independent, salable items that are not themselves Sales Kits and "Valid Sales Kits", meaning Sales Kits that are only made up of "real items" or other "Valid Sales Kits", may be added as a Sales Kit constituent item.
            3. If a constituent item requires additional pricing, such as may be the case with optional items or additional quantities beyond the required quantity. Create a list pricing schedule for addon pricing and set a price for the item in this context.
        iii. Repeat the previous step until the kit is fully defined.
        iv. Create any additional records, such as item site records, as normally required.
        v. Save and close the Sales Kit Maintenance form.
    d. Repeat steps "b" through "c" until all Sales Kit items have been defined for the top-level selling kit.

Sales Kit Maintenance

1. Identify needed changes to an existing Sales Kit. (not system)
   a. A need for updating a pre-existing sales kit is identified by the staff responsible for managing and defining product offerings.
   b. Identify the required scope of the changes and what, if any, other dependent Sales Kits may be impacted by the planned changes.
2. Perform the required data maintenance. (system)
   a. If the desired changes will cause a Sales Kit to become an "Invalid Sales Kit", meaning it isn't made up of "real items" or other "Valid Sales Kits", it must be removed from any parent Sales Kit(s) prior to updating the targeted Sales Kit.
   b. Open the appropriate Sales Kit item using the Item form in edit mode (e.g. double clicking a Sales Kit item in the Item List).
   c. Once open, click the "Materials" button of the item form to open the Sales Kit Maintenance form.
   d. After the Sales Kit Maintenance form opens, the option will vary depending on the desired changes:
      i. To add additional items, click the "Add Item" button of the Sales Kit Maintenance form.
      ii. To remove items, select the targeted items from the list and click the "Remove Items" button.
      iii. To edit an existing item, either double click the desired item in the list or right click the item and select "Edit…" from the menu.
   e. Once all desired changes have been made click the "save" button of the Sales Kit Maintenance form.
      i. Any changes made to Sales Kit definitions will not propagate to existing order transactions in existence prior to the change. Only new order transactions will use the updated Sales Kit definition.
      ii. Any attempt to save a change which invalidates a Sales Kit, and if the Sales Kit is a constituent item of another parent Sales Kit, the "save" operation will be aborted with an error indicating that you cannot invalidate an in-use Sales Kit. Step 2.a is required.
   f. Repeat all of step 2 as necessary to complete the desired changes.

quote/sales order transaction processing

This process description will describe the steps from Sales Quote to conversion to Sales Order. It should be noted that taken individually, the Sales Quote and Sales Order process are largely the same in terms of how Sales Kits are processed. The key difference is that if a Sales Quote is converted to a Sales Order, existing Sales Kit entries will convert as well so that anything already entered doesn't need to be re-entered.

1. Sales staff is notified of a customer need for product that is sold as a Sales Kit.
2. The responsible salesperson will create a new Sales Quote in the system as normal.
    a. Sales Quote header information is filled in as appropriate.
3. Once the header data is filled in, the salesperson will create a new Sales Quote Item, opening the Sales Order Item form.
    a. In the item field, select the Sales Kit to be sold to the customer.
    b. A copy of the Sales Kit definition, including all child Sales Order Kits which may be involved, is made to records that are specific to the Sales Quote being worked on.
    c. Prior to saving the Sales Quote Item information entered, there are two possible process paths:
        i. If the "Must Save Complete on Quote" option on the Sales Kit being sold is not checked, the salesperson may either save the Sales Quote Item and continue adding items to the quote as needed or click the "Configure Sales Kit" button to allow any options in the kit to be designated.
        ii. If the "Must Save Complete on Quote" option on the Sales Kit being sold is checked, configuring the Sales Kit as described in the prior step becomes mandatory and must be completed before saving the Sales Quote Item will be allowed.
    d. On clicking the "Configure Sales Kit" button of the Sales Quote Item form, the Sales Order Kit Configuration form will open.
        i. The Sales Order Kit Configuration form allows the salesperson to chose or update any selection items, optional items, or optional quantities.
        ii. Navigating the form to edit Sales Kit Options will be performed by a variety of methods including selecting an item from the "Current Sales Order Kit Items", or by clicking the "Next Incomplete Item" or "Previous Incomplete Item" buttons.
        iii. If the "Require All Items Are Complete to Save" option is selected for the Sales Kit, the salesperson must completely configure all options of the Sales Kit prior to leaving the form, unless they have the appropriate permission to override the setting.
        iv. If the salesperson has the requisite permissions and a need, the materials list of the Sales Kit can be overridden for the Sales Quote individually via a right click option on a Sales Kit option in the Current Sales Order Kit Items pane of the Sales Order Kit Configuration form; this will open an instance of the Sales Kit Item Maintenance form for the selected item.
        v. Once all desired/required information has been entered into the Sales Order Kit Configuration form, the user may then close the window and return to the Sales Quote Item form.
        vi. The system will update any pricing as necessary based on the Sales Kit pricing and any optional pricing that may apply.
    e. The salesperson saves the Sales Quote Item form in the usual ways and save the Sales Quote similarly.
4. The salesperson will communicate the quote to the customer, make any needed adjustments, and ultimately receive word from the customer as to whether or not the customer wants to make the sale.

5. On confirming the sale with the customer, the salesperson will convert the Sales Quote to a Sales Order.
    a. Any information regarding Sales Kits entered into the quote, will be copied to the Sales Order, even if the original information as saved with the quote was not completed.
    b. The Sales Order form will open for additional data entry for the sales order.
    c. If the Sales Kits present in the Sales Order and that are marked as "Must Save Complete on Sales Order", the salesperson must complete the incomplete Sales Kits in order to save the Sales Order.
6. The salesperson makes the Sales Order Item for the Sales Kit shippable.
    a. If the Sales Kit is of type "Simple" and is made up of only "real items", the Sales Order Item follows the behavior of the legacy Sales Kits and requires no further finalization.
    b. If the Sales Kit doesn't meet the criteria in the step above, the Sales Order Item must be "firmed" prior to be being shippable.
        i. The top-level Sales Kit must be valid, meaning any Sales Kits that have been added to the order under the top level must themselves be valid.
        ii. The salesperson may use the Sales Order Kit Configuration form to set the Sales Order Item to firm or simply firm the line in the existing way. In either case, the validity of the Sales Kit will be checked.
            1. If the Sales Kit is complete, the Sales Order Item is firmed and the constituent items are added as sub-lines to the Sales Kit's Sales Order Item in their aggregated quantities.
            2. If the Sales Kit is incomplete, the attempt to Firm the line will fail with an error.
        iii. The salesperson must still have the "FirmSalesOrder" permission.
7. If required, the salesperson may make changes by "unfirming" the sales order line of the top-level Sales Kit.
    a. The Sales Order Item that is the target may only be unfirmed if there have been no Issue to Shipping transactions posted for any of its constituent items.
    b. If there are transactions that prevent unfirming the Sales Order Item, the Sales Order Item may be cancelled in the regular way.
    c. Again, the salesperson must have the "FirmSalesOrder" permission to unfirm the line.

shipment transaction processing

Once a Sales Order containing a Sales Kit has met the shipping criteria described in the previous section, the existing xTuple ERP shipment process is followed without additional changes.

return authorization processing

Return Authorization process may follow two separate paths depending on the nature of the return. In the case where a previous Sales Order and Sales Order Item is identified, there are no special user facing differences between the process prior to the changes documented here and after. The original configuration of the Sales Kit from the Sales Order will be used to define the Return Authorization Sales Kit.

However, Return Authorizations allow for products to be returned ad hoc, without identifying a prior Sales Order or Sales Order Item. In these cases, we will implement the same basic process as the Sales Quote/Sales Order process, except in the context of a Return Authorization. The only difference is that the Sales Quote/Sales Order allows the possibility of not fully configuring the Sales Kit at the time the Sales Kit is added to the order whereas in the context of the Return Authorization the Sales Kit must be fully configured to save and authorize the Return Authorization Item record.

application requirements

The following discussion is directed specifically on application behaviors as can be extrapolated from the process discussion. While the requirements described here are intended to be thorough, you should nonetheless expect unintentional gaps needing to be addressed to be found as the project progresses.

configurations and permissions

Permissions

1. **OverrideSaveKitCompleteQuote**: Allows a salesperson to override the "Must Save Complete on Quote" Sales Kit setting when entering a Sales Quote.
2. **OverrideSaveKitCompleteSalesOrder**: Allows a salesperson to override the "Must Save Complete on Sales Order" Sales Kit setting when entering a Sales Order. Note that this permission does not allow a salesperson to firm the line prior to the Sales Kit being "Complete" in the Sales Order.
3. **ModifySalesKitsInOrders**: Allows a salesperson to modify how a Sales Kit is defined for a single order where the Sales Kit has been added.

Configurations

There are currently no special configuration points anticipated at this time.

item form & sales kit maintenance form access

Sales Kits do not change the majority of Item form functionality. However, the ability to access the Sales Kit Maintenance form does need to be addressed in this context.

1. The "Materials" button of the Item Form should open the Sales Kit Maintenance form rather than the Bill of Materials form when pressed for an Item of type "Kit".
   a. Other forms and menus may also be appropriate to address regarding the same basic functionality.

sales kit maintenance form

A new form to allow Sales Kits to be maintained will be created. This form is expected to be accessed primarily via the Item form "Materials" button. This form will also be used for editing order specific kit definitions when accessed from the "Sales Order Kit Configuration" form described later in this document.

Sales Kit Maintenance/Modes

1. **Edit**: This mode is available when the parent Item form is accessed in its "New" or "Edit" modes, or when the user accesses the form via some other method that implies editing. This form has no elements where distinction between "New" and "Edit" is important therefore there is only one mode that allows changes in both conditions. This mode indicates that all currently valid user entry fields should accept entry. Note that any user that may maintain Items may also maintain Sales Kits.

2. **View**: This mode is available then the parent Item form is accessed in its "View" mode, or when the user accesses the form via some other method that implies view only access. This mode indicates that all data changes are prohibited and that all data is "view only".

Sales Kit Maintenance/Fields

1. **Item Number**: Identifies the Item record that is the Sales Kit being defined. There are a number of informational fields which may be displayed, such as Item Description, which are a standard part of the Item user interface control.

2. **Kit Type**: Defines the kind of Sales Kit this item will be. Valid selections are "Simple", "Select One", or "Mix/Match". Note that this field may not be changed if the Sales Kit has any Sales Kit Items assigned to it. If there are no Sales Kit Items assigned, the Sales Kit Type may be freely changed.

3. **Total Required**: The total number of units from all Sales Kit Items which this Sales Kit will require to be added to an order to be considered "Complete" in that order. This field is display only for Sales Kit Types "Simple" and "Select One". For Sales Kit Type "Mix/Match", this field is a user entry field and must be greater than zero. Note that this field is not in any specific UOM, it's merely a totaling cross-check across all Sales Kit Items.

4. **Total Up-To**: The maximum number of units from all Sales Kit Items that may be added to an order for this Sales Kit. This field is display only for Sales Kit Types "Simple" and "Select One". For Sales Kit Type "Mix/Match", this field is a user entry field and must contain a value that is equal to or greater than the Total Required field. Note that this field is not in any specific UOM, it's merely a totaling cross-check across all Sales Kit Items.

5. **Must Save Complete on Quote**: When checked and this Sales Kit is added to a Sales Quote as the top-level Sales Kit, a salesperson must complete all option selections required by the Sales Kit and its child kits before being able to save them to the Sales Quote. A salesperson may override this setting on any given Sales Quote Item so long as they have the "OverrideSaveKitCompleteQuote" permission.

6. **Must Save Complete on Sales Order**: When checked and this Sales Kit is added to a Sales Order as the top-level Sales Kit, a salesperson must complete all option selections required by the Sales and its child kits before being able to save any changes to the Sales Order Item. A salesperson may override this setting on any given Sales Order Item so long as they have the "OverrideSaveKitCompleteSalesOrder" permission. Note that this setting will not prevent incomplete Sales Kits from appearing on Sales Orders, for example, a Sales Quote may be allowed to have incomplete Sales Kits; when such a quote is converted to a Sales Order, the conversion process will copy the incomplete Sales Kit to the Sales Order, as-is. Any subsequent edit of the Sales Order Item, however, will require the Sales Kit to be made complete prior to allowing any change to be saved.

Sales Kit Maintenance/Item List

This is the data table that is the most prominent feature of the Sales Kit Maintenance form. This list displays all of the current constituent items that make up the Kit. The form fields displayed are largely defined in the description of the Sales Kit Item Maintenance form. Note that the fields in the example figure are those most likely to be helpful as visible by default, but other fields not visible by default are likely to be added during the project.

General behaviors include:

1. **Double click action**: On double clicking an item, the Sales Kit Item Maintenance form will open. It will open in the same form mode as the Sales Kit Maintenance form is in when the double-click happens.
2. **Multi-select**: Multiple items in this list may be selected in the normal ways supported by the operating system. Which actions work against all selected items and which don't will depend on the specific action in question.

Right click menu options:

1. **Open Item**: This option opens the Sales Kit Item Maintenance form for the item which is right clicked. If the current form mode is Edit, the Sales Kit Item Maintenance form will open in Edit mode, otherwise it will open the form in View mode.
2. **Add Item Above…**: This option will open the Sales Kit Item Maintenance form and add the resulting item above item in the list that is right clicked. Ordering in this list influences order Sales Kit data entry and so may be important for efficiency. This option is only available in Edit mode.

3. **Add Item Below…**: This option will open the Sales Kit Item Maintenance form and add the resulting item below the item in the list that is right clicked. This option is only available in Edit mode.
4. **Remove Item**: This option will remove the right clicked item from the Sales Kit. Note that this option will not remove all selected items from the list, but only the item that is right clicked. This is data safety measure. This option is only available in Edit mode.

Sales Kit Maintenance/Buttons

1. **Save**: Will save the Sales Kit Maintenance form header information. Note that, as is true of most of the list data in the xTuple ERP application, individual actions with Sales Kit Maintenance Item List functions will take effect immediately, regardless of whether this Save button is clicked or not. This includes adding, removing, or editing individual Sales Kit Items. This option is only enabled when the form is in Edit mode.
2. **Cl**ose: Will close the form. Any unsaved header level changes will be discarded if not already saved at close time. This button is enabled under any form mode.
3. **Add Item**: When pressed will allow the user to add another item after the last item in the Sales Kit. To do this it will open the Sales Kit Item Maintenance form. This button is only enabled in Edit mode.
4. **Remove Items**: When pressed will remove any Sales Kit Items selected in the Sales Kit Items List. This function will remove all selected items from the Sales Kit. This button is only enabled in Edit mode.
5. **Move up**: When a single item is selected that is not already at the top of the Sales Kit Maintenance Item List table, clicking this button will move that item up one position. This button is only enabled in Edit mode and when the item selection criteria is met.
6. **Move Down**: When a single item is selected that is not already at the bottom of the Sales Kit Maintenance Item List table, clicking this button will move that item down one position. This button is only enabled in Edit mode and when the item selection criteria is met.

sales kit item maintenance form

A new form to be created to allow individual Sales Kit Item details to be maintained. The expect access path is from the Sales Kit Maintenance form.

Sales Kit Item Maintenance/Modes

1. **New**: This mode is used for adding an Item to a Sales Kit. In New mode, the form does not expect any pre-existing data to be loadable. All normally editable fields are enabled, unless specified as being disabled due to some specific condition of the form, including workflow, type selections, etc.
2. **Edit**: The form expects to load data from an existing Sales Kit Item record and allow changing most details. As with New mode, some fields might not be enabled for editing for various reasons detailed elsewhere.
3. **View**: In view mode, an existing Sales Kit Item record is loaded and displayed to the user in a view only presentation. All fields are disabled for user input, except the "Close" button.

Sales Kit Item Maintenance/Fields

1. **Kit**: A display only field which indicates the current Sales Kit to which this Sales Kit Item belongs. Other fields, such as Item description fields, may be present as in normal for the Item user interface display component.
2. **Kit Type**: A display only field which indications the type of the Sales Kit to which this Sales Kit Item belongs.
3. **Line Name**: A user visible short description for this line in the Sales Kit. For example, this field could indicate the role that this item will play in the larger Sales Kit. This may be especially helpful in making optional components more easily understood to salespeople in ordering contexts.
4. **Line Type**: Defines the behavior of this line in the Sales Kit. Note that when the Sales Kit Type is "Simple", the Line Type will always be "Required"; when the Kit Type is "Select One", the Line Type will always be "Select Option"; and when the Kit Type is "Mix/Match", the Line Type may only be either "Required" or "Range". In cases where there is only a single possible Line Type, the field will be disabled for user entry. Only valid choices for the Line Type will be available as selectable options in the Line Type selection list.

5. **Item**: This is the Item being added to the Kit as a Sales Kit Item. Any Item that is a Real Item or is a Valid Sales Kit may be added as a Sales Kit Item. Other fields may display here such as the Item Description as is standard with the Item user interface control.

6. **Selling UOM**: A Display only field indicating the Selling UOM as set on the Item form of the Item referenced in the Item field. All quantities are expected to be stated in the Selling UOM of the item.

7. **Required Qty**: The number of units that are required for this Sales Kit Item and that are priced into the base price of the Sales Kit. Any Sales Kit Item with a Required Qty greater than zero will be added to an order at the Required Qty; note that this only applies when then Sales Kit to which the Sales Kit Item applies has itself been added to the order. For a Line Type of "Required" and the form is in an editable mode, the field is enabled for entry and must be equal to or greater than one. For a Line Type of "Select Option", the field is disabled for entry in all form modes and will always be of value zero. For a Line Type of "Range" and the form is in an editable mode, the field will be enabled for entry and may have a value of zero or greater.

8. **Up-To Qty**: The maximum number of units of this item that may be added to an order. For a Line Type of "Required", this field will not be enabled for editing and will always be equal to the Required Qty. For a Line Type of "Select Option", this field will not be enabled for editing and will always be equal to one. When the Line Type is "Range" and the form mode is editable, this field will be enabled for editing and may be any value equal to or greater than the Required Qty. Note that quantities above the Required Qty, when allowed by this field, are considered optional and will be subject to any assigned Addon Pricing Schedule.

9. **Addon List Price Sched**.: This field identifies a List Price Schedule to apply whenever an optional quantity of the item, optional meaning any quantity added to an order above the Required Qty. When the Line Type is "Required", this option is not enabled for editing and the value will always be empty. With other line types, the field will be enabled any time that the form is in an editable mode. Identifying an Addon List Price Schedule is optional; when no Addon List Price Schedule is identified, optional quantities of this item added to an order will be at no additional charge.

10. **Extended Description**: This is an extended description or instructions for this line that are displayed on the Sales Order Kit Configuration form when this item is selected in the Current Sales Order Kit Items list. This field will be enabled for editing whenever the form mode is in an editable state. This field is optional.

Sales Kit Item Maintenance/Buttons

1. **Close**: Closes the form and discards any unsaved changes. This button is always enabled on this form.

2. **Save**: Will save the form fields, including any changes made by the user. This button is only enabled when the form is in an editable mode.

3. **Previous**: This button will load the previous (up the list) Sales Kit Item as it appears in the Sales Kit Maintenance Item List on the Sales Kit Maintenance form. If the currently loaded Sales Kit Item is first item in that list, this button will be disabled for input; otherwise this button is always enabled for input. Note that as the form transitions from one item to the next due to using this button, the form mode is always that of the current item.

4. **Next**: This button will load the next (down the list) Sales Kit Item as it appears in the Sales Kit Maintenance item List on the Sales Kit Maintenance form. If the currently loaded Sales Kit Item is the last item in that list, this button will be disabled in View mode, or will be re-labeled to "New" in editable modes. If the button label is "New", a press of the button will cause the form to clear and setup for adding a new item to the end of the Sales Kit.

sales order kit configuration form

A new form will be created to manage Sales Kit options management in the context of a Sales Order. Despite the name here, this form will be used in Sales Quotes, Sales Orders, and Return Authorizations. The expected access path to the new form is expected to be from the Sales Quote/Sales Order Item Lists via right click menu, and directly from the order item forms via a new button.

This form is relatively more complex in order to avoid having to open and close new, task specific windows continuously during the Sales Quote/Order process. To achieve this there is an implied workflow to the form.

1. When then form loads, initially the "Current Sales Order Kit Items" data list is populated with those Sales Kit Items which have been already added to the order either because they are required or previously selected by salespeople.
2. On selecting a row in that list, the "Selected Item Options" data list is populated with information contextually relevant to that selection.
3. From the "Selected Item Options" list, you can further select a specific option to either add to the order, set quantities, or set pricing, using the fields in sections on the right of the form or right click options.

In this way, we can manage relatively complex top-level Sales Kits while displaying/editing immediately relevant contextual information of interest.

This form may be called from the Sales Quote, Sales Order, and Return Authorization transaction forms. Where relevant, fields labels (e.g. "Sales Order") as defined below may change to reflect the context in which the form is being opened.

Sales Order Kit Configuration/Modes

1. **Edit**: Edit mode is the only mode that allows editing as there is no difference between "Edit" and "New" for this form. Any fields which should allow input, barring any other permission or workflow limitations described later, will be enabled for entry in Edit mode. Edit mode will be the form mode when accessing the form from a parent record that is also in an editable mode. This mode will be available to salespersons with the "maintain" permission for the order type in question.
2. **View**: This is a view data mode only. Unless otherwise stated below, all entry fields and data changing actions will be disabled for user input.

Sales Order Kit Configuration/Current Sales Order Kit Items List

When opening the Sales Order Kit Configuration form, this list is automatically pre-populated with all Sales Kit items that are already added to the order, including the top-level Sales Kit itself at the top of the list. This is the starting point for order kit configuration activity from the workflow perspective.

Rows are ordered in a tree structure and are ordered according the Sales Kit Maintenance form order of each Sales Kit in the tree. Various levels of the tree may be expanded or collapsed by using the standard xTuple ERP controls for tree structured data in data tables.

Fields in the list are primarily Sales Kit Item fields as defined on the "Sales Kit Item Maintenance Form". In addition to these fields (though not shown in the wireframe diagram) will be inventory position fields similar to those found on the Sales Order Item form (e.g. Available QOH, Allocated QOH, On Order, etc.). The expectation is that the correct trade-offs between displaying information and form space will be more apparent as we progress through the project.

General behaviors of this table include:

1. **Single selection**: Only a single row in this table will be selectable at one time.

2. **Row selection**: When a row is selected in this table, that row will be the basis for populating the "Selected Item Options" table.
3. **Row colors**: There are two possible line states that may need to be represented in this list: 1) completed items; and 2) incomplete items. Rows containing completed items will be displayed as normal, with black text. Rows that are incomplete (i.e. incomplete child Sales Kits) will be displayed using the "Error" color code as defined in the xTuple ERP locale configuration.

Right click menu options include:

1. **Maintain Sales Kit…**: This option will open the Sales Kit Maintenance form to allow maintenance of the Sales Kit as it exists for this order only. For this option to be enabled, the right clicked item must be a Sales Kit, the form must be in Edit mode, and the user must have the "ModifySalesKitsInOrders" permission.

Sales Order Kit Configuration/Selected Item Options List

When a row is selected in the "Current Sales Order Kit Items" list, this list is populated with additional details for the selected item. The most important difference between this list and the Sales Order Kit Items list is evident when the selected item is a Sales Kit item; in the Current Sales Order Kit Items list, only Sales Kit Items that have actually been added to the order appear, but in the Selected Item Options list all available options for the selected Sales Kit are displayed. In this way we can make a clearer distinction between what has been added to the order and the options that are available to add to the order.

The top row of the list will always be a restatement of the same item as that selected in the "Current Sales Order Kit Items" list. If this row is a Real Item, then it will be the only row in this list; if it is a Sales Kit, rows under the first will be listed in a tree structure, but will only show the direct children of top row Sales Kit. Rows will be shown in the order as defined by the Sales Kit definition.

The list fields should largely mirror the "Current Sales Order kit Items" list. The definitions of those fields will mostly be found in the Sales Kit Item Maintenance form description. The only real difference here is that the Addon Price Schedule set for the item would be more appropriate to display in this list than, say, the Extended Price column from the "Current Sales Order Kit Items". As mentioned earlier, we expect specific columns will be an in-project decision making concern as the project team becomes familiar with the forms, data, and understands the on-screen space available vs. the data available.

General behaviors of this table include:

1. **Single selection**: Only a single row may be selected at a time.
2. **Default selection**: By default, when the form populates, the top item will be automatically selected.
3. **Row selection**: When a row is selected, the "Selected Item Extended Description" field and "Option Parent" and "Edit Selected Option" field groups are populated with the current data for the selected row. Note that any edited values in the "Edit Selected Option" field group will be discarded when the row selection changes as though the field group's "Cancel" button had been pressed.
4. **Row colors**: Rows that are already added to the order and are complete will appear in the standard black text. Rows for items that have been added to the order and are incomplete will appear using the "Error" text color code (typically red). Rows for items that have not been added to the order will appear using the "Expired" color code (typically grey).

Right click menu options:

1. **Add to Order**: If the form is in Edit mode, this will add the right clicked item to the order in a quantity of one. This option will only be available for "Select One" and "Range" Line Type items that have not already been added to the order. The intent here is to provide some short cut to clicking the selection here and then having to edit/click the buttons in the "Edit Selected Option" group on the right form. If some other edit operation is required, then the user will have to select the item in the list and use the "Edit Selected Option" field group at the form's right.

Sales Order Kit Configuration/Fields

1. **Sales Order**: The order number for which the Sales Kit is being configured. Note that for order types other than "Sales Order", the system will display their number here with the appropriate field label. This is a view only field.
2. **Line**: The order line number to which the top-level Sales Kit being configured belongs. This is a view only field.
3. **Require All Items Are Complete to Save**: When checked and the form is opened in Edit mode, all Items added to the order, including Real Items or other Sales Kits, must qualify as being fully complete in order to save the Sales Kit Configuration or even the order line record. By default, this value is set according to the similarly named Sales Kit Item Maintenance form setting for the top-level Sales Kit. If a user has the "OverrideSaveKitCompleteQuote" or "OverrideSaveKitCompleteSalesOrder" permission, the user may check/uncheck this checkbox on the order at will, otherwise it is disabled for entry.
4. **Firm Sales Order if Top Level Kit is Complete**: This field only pertains to Sales Orders. It is a convenience option to automatically mark the Sales Order Item record being configured as being "Firmed" if the top-level Sales Kit is fully "Complete". This option is only available on the Sales Order form and is only checkable if the form is in Edit mode and the user has the "FirmSalesOrder" permission.
5. **Selected Item Extended Description**: This field is a display only field in any mode which is populated when a row is selected in the "Selected Item Options" list. The information displayed is the extended description that may be entered on the Sales Kit Item Maintenance form.
6. **Option Parent**: This field group section is an information only set of fields which populate based on a row selection in the "Selected Item Options" list. The information displayed is the header information of the parent Sales Kit of the selected item. If the selected item is the top-level Sales Kit, then this information is simply not populated.
   a. **Kit**: The Item of type Kit which is the parent of the selected item. Other information may display, such as Item Description as is appropriate for the Item user interface control.
   b. **Line Name**: If the parent kit is a child of the top-level Sales Kit (or lower), this is the Line Name from the Sales Kit Item that adds the Option Parent Kit as an option. If the Option Parent is the top-level Sales Kit, then this field will simply say "Top-level".
   c. **Kit Type**: The Kit Type of the Option Parent Sales Kit.
   d. **Total Required Qty**: The total quantity required by the parent Sales Kit as set on the Sales Kit Maintenance form.
   e. **Total Up-To Qty**: The total maximum number of units allowed by the parent Sales Kit
   f. **Total Qty This Order**: The current total unit quantity added to the order for this parent Sales Kit.
   g. **Is complete in this order**?: If checked, indicates that the parent Sales Kit is already considered "complete" in the order.

7. **Edit Selected Option**: This field group contains fields that are directly applicable to the item selected in the "Selected Item Options" list. This field group is populated when a row is select in the "Selected Item Options" list. If the top-level Sales Kit is selected, none of the fields in this field group will populate as quantitative information, such as quantity and price, are managed directly via the order item level. When a constituent item is selected in the "Selected Item Options" list, then the data is populated and made editable, Line Type and form mode permitting.

    a. **Item**: The item number of the selected row. Other information, such as Item Description, may appear as is appropriate for the Item user interface control. This value is always view only.

    b. **Line Name**: The Line Name of the selected row as set on the Sales Kit Item Maintenance form. This value is always view only.

    c. **Line Type**: The Line Type of the of the selected row. This value is always view only.

    d. **Required Qty**: The quantity of units required when this option is added to the order. This value is always view only.

    e. **Up-To Qty**: The maximum number of units of this item that may be added to the order in the context its parent Sales Kit. This value is always view only.

    f.   **Is complete in this order?**: If the selected item is itself a Sales Kit item type, this box will be checked if its own conditions for being complete in the order have been met. This field is always view only.

    g. **Quantity Ordered**: The number of units of the selected item that have been added to the order. If the Line Type of the item is "Required" then the field will always be view only. If the Line Type is either "Select Option" or "Range" and the form is in Edit mode, the field will be populated with the current quantity of the item already added to the order (or zero if none) and will be enabled for user entry. Any user set value between the Required Qty. or Up-to Qty. (inclusive) will be accepted by the form, so long as parent Kit's quantity limits have not been exceeded.

    h. **UOM**: This is a view only field which displays the selected Item's Selling UOM. The Quantity Ordered field is expected to be entered in units of this UOM.

    i. **Addon Unit Price**: This is the unit price to be applied to all Quantity Ordered units above the Required Qty for the selected item when the Line Type is either "Select Option" or "Range". By default, this field is populated by the Addon List Price Schedule assigned via the Sales Kit Item Maintenance form or is zero. If the salesperson has the permission "OverridePrice", the form mode is Edit, and the Line Type is either "Select Option" or "Range", this field is enabled for editing and the salesperson may override the default price.

Sales Order Kit Configuration/Buttons

1. **Close**: Closes the form. Any unsaved changes in the "Edit Selected Option" field group fields will be discarded. Enabled for input in all modes.

2. **Next Incomplete Item**: Will select the next incomplete item in the "Current Sales Order Kit Items" list, searching down the list from the currently selected item (or the top if there is no selection). If all items are complete, this button will be disabled. This button will accept input in any form mode.

3. **Previous Incomplete Item**: Will select the previous incomplete item in the "Current Sales Order Kit Items" list, search up the list from the currently selected item (or the bottom if there is no selection). If all items are complete, this button will be disabled. This button will accept input in any form mode.

4. **Save to Sales Order**: This button will save any values in the "Edit Selection Option" field group, including adding the item to the order if is not already added. This button is only enabled for entry if the form

mode is Edit, the Line Type of the selected item is either "Select One" or "Range" or the item is not already added to the order, and if a sales order, not firmed or shipped.

5. **Remove from Sales Order**: Will remove the selected item from the order. This button will only be enabled for editing if the selected item has previously been added to the order, the form is in Edit mode, the order is not Firmed, and there has been no shipping booked against the order.

6. **Cancel**: Clears the "Edit Selected Option" fields, discarding any changes that may have been made there. This button is only enabled for entry when the form is in an Edit mode.

additional transaction processing requirements

There are a set of transaction processing requirements that should be addressed independently.

Sales Order Item Firming

When adding a Sales Kit using xTuple ERP's legacy Sales Kit functionality, the component items as defined in Sales Kit Item's Bill of Materials are exploded into the Sales Order immediately. This means the Sales Kit is added as a top-level Sales Order Item and its component items are nested under that line as "sub-lines" of the Sales Order. These sub-lines drive much of the Sales Kit Related Post-Sales Handling functionality; these are the actual lines shipped, returned, etc.

In the new Sales Kits defined in this document, our intent is to reuse as much of that legacy functionality as possible. However, unlike the legacy Sales Kits, we do not necessarily know the final make-up of the sub-lines of the Sales Kit until some arbitrary time after the Sales Kit has been added to the sales order. To solve this problem, we will make the process of "firming" a sales order line the point of demarcation between a Sales Kit that is still being configured in a Sales Order and one that is complete.

Given this understanding of the role of firming a Sales Order Item, we can recognize the following requirements:

1. On firming a Sales Order Item containing a Sales Kit, the system will aggregate all of the Real Items added to the order and create Sales Order sub-lines in the Sales Order record, expressing them in the Sales Order in same way as the legacy Sales Kits do.

2. On unfirming a Sales Order Item containing a Sales Kit, the reverse happens. The Sales Kit's sub-lines are removed from the Sales Order as they can no longer be known to be definitive.
   a. A user will not be able to unfirm an order once other transaction processing, such as Issue to Shipping transactions are booked again the item.
   b. A Sales Kit that cannot be unfirmed, may be cancelled.

3. To preserve backwards compatibility with the legacy Sales Kits, an exception to the firm/unfirm requirements here is made for Sales Kits of type "Simple" where all constituent items are Real Items. These Sales Kits will not require firming and will work as they do today.

Pricing

Our assumption is that most pricing activities in relation to Sales Kits will be handled as it is for other, non-Sales Kit related items. However, since we allow for optional items and optional quantities, we must recognize a special pricing case in these instances and observe the following requirements.

1. A Sales Kit item added to an order will have a price established using the existing xTuple ERP mechanisms which is understood to include all required constituent items and any items not specifically configured to have an addon unit price.
2. Optional items/quantities added to the order for the Sales Kit will be priced as follows:
    a. If the optional units have an Addon List Price Schedule assigned to them via the Sales Kit Item Maintenance form the price is drawn from that price schedule for the number of optional units added to the sales order.
    b. If there is no Addon List Price Schedule configured for the item, the optional units are priced at zero. Again, this fact is stored with the Sales Order Kit Configuration data.
    c. If the salesperson has the "OverridePrice" permission, they may override the automatically determined optional unit price manually on the Sales Order Kit Configuration form.
        i. Changing the quantity of the optional units assigned to the order will cause any manually set price to be overridden if there is an assigned Addon List Price Schedule.
3. Final Sales Kit pricing for the Sales Order Item can then be understood as:
    a. Find the extended list price of the top-level sales kit.
    b. Find the extended list price of the option units via their addon pricing.
    c. Add those two prices together.
    d. Apply any markup/discount established for the top-level sales kit.
4. Pricing will recalculate using the approach above when the normal re-pricing triggering event happen (i.e. Sales Order Item quantity change) or when optional unit quantities set in the Sales Order Kit Configuration are changed.

Multiple Units of Sales Kits

Whether specified a multiple units Sales Order Item which is for a Sales Kit or a multiple units of a Sales Kit defined in a parent Sales Kit, the quantity is merely a multiplier for the Sales Kit's Total Required Quantity and Total Up-to Quantity and it's constituent item's Required Quantities and Up-To Quantities. These extended values determine whether or not any given Sales Kit/Sales Kit Item meets completion criteria.

The implication of this is that we don't count how many required sales kit "units" are complete and how many are incomplete, merely that the sales kit lines in total are either complete or incomplete. For example, assume that a "Select One" Sales Kit is added to a sales order, but the order asks for 5 of those Sales Kits. Based on the definition of a "Select One" Sales Kit, this means I expect 5 component items, and no more than 5, for the sales order item to be considered "complete". If I add 3 units via the Sales Order Kit Configuration form, the system will not tell me that I have 3 complete "Select One" Kits and 2 incomplete Kits, it will only say that the Sales Order Line is still incomplete.

Naturally, this multiplication of Sales Kit definitional quantities gets pushed down through all child Sales Kits.

assumptions & limitations

The following provides a list of known assumptions and limitation regarding application behavior and design. While every effort is made to include all important assumptions and limitations, this list should not be understood to be an exhaustive list of all assumptions and limitations.   Over the course of the project, we fully expect that there will be additional assumptions to be made and limitations realized that are not currently apparent.

1. Sales Kit Maintenance
    a. Only salable items may be added as Sales Kit items in addition to other, Valid Sales Kits.
    b. In all cases, Sales Kit Item units of measure are expressed in the Selling Unit of Measure as defined for that item on the Item form.
2. Sales Order Kit Configuration
    a. Sales Kit definitions will be copied to the Sales Quote/Sales Order at the time the item is added to the order. These copied definitions will not change if the Sales Kit Item is changed.
        i. To get the effects of a Sales Kit Item change in an existing order, the user will have to remove the Sales Kit from the order and add it again.
    b. Once an order's Sales Kit items have started shipping, the Sales Kit definition can no longer be changed other than to cancel the Sales Order Item.
    c. Various forms and reports, including the Sales Order Item form itself, will display availability and running balance information. In the case of Sales Kits as defined in this document, it's as of now unclear how best to present this information. The current sense is that it may only be feasible in the context of the Sales Order Kit Configuration form, but the specific approach to use will likely need some implementation to be completed to best understand.
    d. Row colors are described as indicating status information, such as whether a child Sales Kit in an order is "complete" or "incomplete". While this technique is used throughout the xTuple ERP application, it is not a design pattern that is typically adequate for accessibility concerns (e.g. screen readers used by the blind).
        i. If accessibility features are required, text based statuses can be added where only color based status are currently defined. However, note that doing this still would not be standard in the application beyond the Sales Kit functionality.
    e. On the order transaction, multiple units of the top-level Sales Kit may be made, but there can only be a single Sales Kit Configuration for any one order line. This means the quantity at the order level simply multiplies the configuration of that line.
        i. If multiple configurations of the same Sales Kit are needed in the same order, separate order lines for each Sales Kit configuration must be added to the order.
    f. There can be ranges of Sales Kit order configurations and quantities that can be considered "Complete" and shippable. When the system is checking for completeness to allow dependent operations, the system will only check for any circumstance that can be called complete and not necessarily the specific circumstance the user was desiring. As such the business process must account for the possibility that a "complete" Sales Kit in an order transaction may not be complete from the authoring user's perspective.
3. Sales Kit Related Post-Sales Handling
    a. Sales Kits will not respect the Misc. Invoice "Update Inventory" checkbox. This is not a change in Misc. Invoice functionality as the legacy Sales Kits do not respect this checkbox today.

b. Sales Kits will not respect the Sales Credit "Update Inventory" checkbox. This is not a change in Sales Credit functionality as the legacy Sales Kits do not respect this checkbox today.

form mockups

Sales Kit Maintenance — □ ×

| Item Number: | KI-001 | Sales Kit Item 001 | Kit Type: | Select One ▼ | Total Required: | 1 | Total Up-To: | 1 | Save |

☐ Must Save Complete on Quote   ☐ Must Save Complete on Sales Order   [Add Item] [Remove Items]   [Close]

Item	Item Description	Line Name	Line Type	Required	Up-To	Selling	Addon Price Sched
CI-001	Kit Component 001	Standard	Select Option	0	1	EA	
CI-002	Kit Component 002	Better	Select Option	0	1	EA	Option Pricing
CI-003	Kit Component 003	Premium	Select Option	0	1	EA	Option Pricing

[Move Up]
[Move Down]

Sales Kit Maintenance — □ ×

| Item Number: | KI-001 | Sales Kit Item 001 | Kit Type: | Simple ▼ | Total Required: | 5 | Total Up-To: | 5 | Save |

☐ Must Save Complete on Quote   ☐ Must Save Complete on Sales Order   [Add Item] [Remove Items]   [Close]

Item	Item Description	Line Name	Line Type	Required	Up-To	Selling	Addon Price Sched
CI-001	Kit Component 001	Base	Require	1	1	EA	
CI-002	Kit Component 002	Item Stand	Require	3	3	EA	
CI-003	Kit Component 003	Enclosure	Require	1	1	EA	

[Move Up]
[Move Down]

Sales Kit Maintenance ▬ ❑ ✕

Item Number: [   ]   <Item Description>   Kit Type: [▼]   Total Required: [   ]   Total Up-To: [   ]   [Save]

☐ Must Save Complete on Quote   ☐ Must Save Complete on Sales Order   [Add Item]   [Remove Items]   [Close]

| Simple |
| Select One |
| Mix/Match |

Item	Item Description	Line Name	Line Type	Required	Up-To	Selling	Addon Price Sched

[Move Up]

[Move Down]

Sales Kit Maintenance ▬ ❑ ✕

Item Number: [KI-001]   Sales Kit Item 001   Kit Type: [Mix/Match ▼]   Total Required: [5]   Total Up-To: [7]   [Save]

☐ Must Save Complete on Quote   ☐ Must Save Complete on Sales Order   [Add Item]   [Remove Items]   [Close]

Item	Item Description	Line Name	Line Type	Required	Up-To	Selling	Addon Price Sched
CI-001	Kit Component 001	Primary Component	Require	3	3	EA	
CI-002	Kit Component 002	Enclosure	Require	1	1	EA	
CI-003	Kit Component 003	Included Short Extensions	Range	0	1	EA	
CI-003	Kit Component 003	Optional Short Extensions	Range	0	2	EA	Option Pricing
CI-004	Kit Component 004	Optional Long Extensions	Range	0	3	EA	Option Pricing

[Move Up]

[Move Down]

Functional Requirement
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Sales Kit Item Maintenance   _ □ ✕

Kit: [   ]   <Kit Description 1>   Kit Type: <Kit Type>

<Kit Description 2>

Close

Save

Kit Item Defintion

Line Name: [   ]   Line Type: [▼]

Previous

Item: [   ]   <Kit Item Description>   Selling UOM: <UOM>

Next

Required Qty: [   ]   Up-To Qty: [   ]   Addon List Price Sched.: [▼]

Extended Description:

[   ]

Sales Kit Item Maintenance   _ □ ✕

Kit: [KI-001]   Sales Kit Item 001   Kit Type: Simple

A demo of "Simple"

Close

Save

Kit Item Defintion

Line Name: [Item Stand   ]   Line Type: [Required ▼]

Previous

Item: [CI-002]   Kit Component 002   Selling UOM: EA

Next

Required Qty: [3   ]   Up-To Qty: [3   ]   Addon List Price Sched.: [▼]

Extended Description:

[   ]

Sales Kit Item Maintenance   — □ ✕

Kit: [KI-001]   Sales Kit Item 001   Kit Type: Select One

Demo of Select One

[Close]

[Save]

Kit Item Defintion

Line Name: [Better]   Line Type: [Select Option ▼]

[Previous]

Item: [CI-002]   Kit Component 002   Selling UOM: EA

[Next]

Required Qty: [0]   Up-To Qty: [1]   Addon List Price Sched.: [Option Pricing ▼]

Extended Description:

[ ]

Sales Kit Item Maintenance   — □ ✕

Kit: [KI-001]   Sales Kit Item 001   Kit Type: Mix/Match

Demo of Mix/Match

[Close]

[Save]

Kit Item Defintion

Line Name: [Optional Short Extension]   Line Type: [Range ▼]

[Previous]

Item: [CI-003]   Kit Component 003   Selling UOM: EA

[Next]

Required Qty: [0]   Up-To Qty: [2]   Addon List Price Sched.: [Option Pricing ▼]

Extended Description:

[ ]

Sales Order Kit Configuration — □ x

Close

Sales Order: <Sales Order #>   Line: <Line #>

□ Require All Items Are Complete to Save   □ Firm Sales Order Item if Top Level Kit is Complete

Selected Item Extended Description:

< Extended Description >

Current Sales Order Kit Items:

Item	Item Descrip.	Line Name	Line Type	UOM	Ordered	Required	Up-To	Unit Price	Ext. Price

Option Parent:

Kit: < Kit Item Description >

Line Name: <Line Name>   Kit Type: <Kit Type>

Total Required Qty: <Qty>   Total Up-To Qty: <Qty>

Total Qty This Order: <Qty>   □ Is complete in this order?

Edit Selected Option:

Item: Item Description

Line Name: <Line Name>   Line Type: <Line Type>

Required Qty: <Qty>   Up-To Qty: <Qty>

□ Is complete in this order?

Quantity Ordered: UOM: <UOM>

Addon Unit Price:

[Save to Sales Order]   [Remove from Sales Order]   [Cancel]

[Next Incomplete Item]   [Previous Incomplete Item]

Selected Item Options:

Item	Item Descrip.	Line Name	Line Type	UOM	Ordered	Required	Up-To Price Schedule	Unit Price