/// scratch paper – 5/22/17

/// mini conversions – sub project of the R3 of sub inventory

/// we have a number of sources that have some info. They are:

* Code and database stuff from Calvin Chipman
	+ We need a high level template (cookie cutter level)
	+ They build as many templates as needed, they can just use them as needed
	+ On the conversion details table and the conversion activity tables. They will need to be corp specific.
	+ We need to show a message back to the user based on the usage and conversion activity.
	+ When removing from the cart, set the quantity to 0 and set the status to 0 on the conversion activity table.
	+ When clearing the cart, set all quantities to 0 and set the status to 0 on the conversion activity table.
	+ We may want to generate a cart number based on the payee and some kind of numeric value.
	+ What about an auto clean-up rule for purging items on hold (claimed). Maybe even have run auto clean-up or manual clean-up processes based off of the numeric date/time stamp.
	+ If we are doing restrictions… what about items that don’t go as deep as the mini conversions? What about sub inventory? What about parent inventory?
	+ The pricing engine will need to use some of the mini conversion pieces. We don’t know where that is going to go. We may have to figure that out later.
		- Steve would like to use some of the smart group type logic… basically rules and assignments. We also need some tie-ins to dates, times, promotions, etc.
	+ On the conversion action table – we need to cover: make it, add to cart, update cart quantity, remove from cart, clear cart, save as quote, restore to cart, save as other quote, checkout, after the fact adjustments up, after the fact adjustments down.
		- Make it is pretty simple – set the process type to 1, set the qty, set the mode to create, set the app type to 1, the main id to 0, the line id to 0.
		- Add to the cart (scan or some other method) – set the process type to 2, the set the qty to a negative, set the mode to cart, set the app type to 1, set the main id to 0, set the line id to the cart line number (from the array).
		- Update the cart quantity – just change the quantity. Remember, most times it will be negative.
		- When removing a line item – set the quantity to 0 and set the status to 0.
		- When clearing a cart – set all quantities to 0 and set all statuses to 0.
		- When saving as a quote – leave the process type at 2 (claimed), change the mode from cart to quote, change the app type to 13, set the main id to the main quote number, hold the line item id’s.
		- When restoring from quote to cart – just change the mode from quote to restored. Leave everything else alone until they do another action.
		- If saved back as same quote, just update mode and other details.
		- If it is saved as another quote, make a whole new set of entries. This does double up the claimed inventory.
		- If full checkout, change the process type id to a 3 (full checkout or sold or gone), cange the mode to invoice, change the app type id to 3, change the main id to real invoice number, change the line id to the real po/invoice line id.
			* Also as part of the checkout, we also want to record the sub inventory id number (~ num), the conversion id (` num), the show conversion u of m, the show quantity, and the show pkg price. These last 3 fields are to help with the smoke and mirrors stuff.
			* If a normal sale or normal checkout where the item is not tied to sub inventory, what then? We need to change the show conversion u of m to the normal u of m, the show qty to the normal qty (but positive), and the show pkg price to the normal price per.
			* Also behind the scense, we need to split up the costs, the item prices, and set the normal quantity and normal unit of measure to what needs to be recorded behind the scenes.
			* We also need to make sure that the taxes are figured out correctly.
			* As a side question… On PO’s, we use a field called the rounding error. Is there ever a time on an invoice that we might need that field. If yes, what is it and how would it flow through?
		- The adjustments up and down are going to be manual entries. They would hit the conversion action table directly.
		- Eric had an ideas about a quote only… some how be able to make the quote not claim any of the inventory.
		- What about adjusting things and rolling things backwards into the base unit of measure. For example: We created 75 of something to get us through a weekend sale… The weekend is over and we only used 60 of them. We want to take 15 of them and roll them back into the base unit of measure.
	+ If we add a number of new fields to the po/invoice line items table, we need a what to go backwards and fill in whatever data we can. This would be a lot of clicking but would bring the data up and into compliance. This will be part of the database update logic.
* Exploratory stuff and ideas from Steve and Danny
	+ At first, the multipliers were locked down. That didn’t work very long.
	+ Steve’s stuff started with a perfect parent/child relationship
	+ We already have the parent item, the vendor, and the sub category
	+ He pulled in the package weight or quantity
	+ We already know the RFID tag number
	+ On the PO line items, show the parent, show the subs, and show an indicator if there are conversions. This indicator could also allow a sub to be sub divided (going to the template or build page). It could be an open circle (no mini conversions) or a filled circle (it has some conversions that have been built out).
	+ We may need to use more and more icons to help them get where they need to go. Think icons or something to keep it small. Basically, we need a way for them to move around and see what is going on.
	+ We have some great ideas on how to shorten up the label functionality. We talked a bunch about ~ and ` symbols. Basically, we are doing some mapping.
	+ The old way (when Steve and Danny were working on things) had a print buttons. This was the commit or action piece. We need to allow them to make things as needed and then print to their hearts desire. Basically split the print vs. the action. We need to build things and then allow printing as needed. The building is the action. The printing is just extra.
* Tons of ideas and notes on the adilas developer notebook and adilas shop (elements of time – research and such)
* Ecommerce stuff from Russell and some alternate angles
* Eric needs this kind of stuff to help with the pricing engine and even clear down to discount rules and loyalty point stuff
* Other
	+ We need to add in a number of new standard units of measure. Things like 1/8, ¼, ½, ¾, cones, shake. Keep things generic.
	+ What about tracking the history? Is it on the template? The conversion itself? The process?
	+ We may want to add user-maintained barcodes for the subs (on the time\_sub\_inventory\_[53] table. We may also want to add a barcode on the conversion\_details table.
	+ What about showing discounts?
	+ Cascading the smoke and mirrors will be days worth of work… we have carts, invoices, mini invoices, quote, pdf’s, ecommerce stuff, email stuff, and tons of black boxes… This is a huge part of the puzzle.
	+ We may want to show some light conversion info back to the person – in the cart mode. Maybe a plus icon that shows underlying base quantity and base unit of measure.
	+ What about rounding errors? We are splitting hairs… we have to either force the rounding error, or we just record it and virtually eat it as cost of goods sold.