New project to expand the tax calcs…

Starting Date: 6/15/17

Branch: BWM-28

Things that need to be done:

* Is there a special order to what gets pushed… Fill in as needed.
	+ Sales tax calcs are huge… we do need to push this early or late in the day (non-peak hours).
	+ Database updates and scripts
	+ CFC’s
	+ Code
* Build the database update page (script it)
	+ Add new fields for 6 – 10 on custom tax fields
	+ Add new fields for all 10 limit by customer type list fields
	+ Change all decimal(5,2) fields to decimal(8,5) – this is for 5 decimal places
	+ Update all new store\_location lists to the value of “all”
	+ We may also want to add in some custom filters and such for the state, county, and city taxes. We may want those dynamics up there in the top level.
	+ Add the database update script. The link was missing as of 6/15/17. We want to record this change as it is fairly big. Done on 6/20/17.
	+ On the existing store and location table… We may want to change the other\_[1-10]\_account\_id to other\_[1-10]\_owe\_to\_payee\_id (who do we owe this collected tax to) and the other\_[1-10]\_tax\_fee\_id to other\_[1-10]\_expense\_type\_id (what expense type to tie it to – the expense type will also have and hold the chart of account numbers through a backwards look-up). This will be a drop-down and may be left at a value of 1 if unknown.
	+ When adding in the dynamics to the normal state, county, and city taxes…. What if we added in similar dynamics for the other account ids, other fees (see notes above for new naming). We may need the numerics from above and the some new varchar fields for what there tax id’s are (these could be strings – id numbers given to the different businesses)
	+ Script the quote line items changes
		- Change all columns that collect taxes to 5 decimals.
		- Add a new column to help with tax rounding so we don’t have to hurt the state tax calc field.
		- Run the script to update all line items
		- We have some new mini conversion stuff… maybe think about getting all of the new tweaks done at once.
		- We may want to run the dollars off discount stuff as well
	+ Script the invoice line items changes (this is corp-specific) this will be a big click, click, click migration.
		- Change all columns that collect taxes to 5 decimals.
		- Add a new column to help with tax rounding so we don’t have to hurt the state tax calc field.
		- Run the script to update all line items – this will be big
		- We have some new mini conversion stuff, dollar off discount stuff, elements of time, and sub inventory stuff… maybe think about getting all of the new tweaks done at once. What does this look like.?
* Work on the add\_edit\_store.cfm page…
	+ Add the new 6 – 10 custom values
	+ Add the new 1 – 10 customer type lists with builders
		- Make sure that builders work… default to All
	+ Expand the samples for the percentages, expand the max number of digits for the percentage fields. Maybe show a max of 5 decimal places
	+ There is both add and edit modes… both need to be updated and checked.
	+ Maybe help format things back to the user so that they can see that there are 5 decimal points of accuracy
	+ The body will be in the secure/classic folder
	+ The old field that say “state tax id” maybe rename to “state tax license number”. We also need a new field for all of the other custom tax fields.
	+ Maybe help the part category builder to remember the prior choice. Also, maybe include the word discount in the top selection for Internal Use – N/A System (id=2). Maybe in the add mode, precheck that box to help them. This is a helper but may not be the main priority.
	+ Steve is wanting to pull in the state to the add/edit location page. This is on the add mode and gets pulled from the corp level. Extra icing stuff.
* Add the new values to the action page add\_edit\_store\_action.cfm
	+ Setup new params, validation, update loops, etc.
	+ Add new fields to the add method and the update method
* Make sure and check the code when a new corp is created. A new location is also created at the same time.
* We want to include a history note about who changes what on the store and/or location level. This is also true on who changes what on the different tax settings. Maybe even a review of what it was vs. what it is after the change.
	+ This may include passing in old values or looking them up before doing an update. We may want to record even down to the detail level of values and percentages. Only record where changes occur.
* On locations… we will eventually need both a start and an end date to help with the life cycle of the those pieces. This is more for the balance sheet, but will be needed at some point.
* On banks… not part of this project, but we really need both start and end dates on banks.
* We are also seeing the ice-down date starting to play into things. At some point, we need to lock things down and keep things stable. Think of water forming into slush, snow, and eventually ice.
	+ Instead of doing the ice-down clear down to a crazy deep level (system wide)… what if we roll in the ice-down date for sales tax. Start the process.
	+ Steve had the idea of breaking the ice-down into smaller pieces and sections.
	+ As a side note… we do have a high-level ice-down setting (master date of sorts). That setting might not be enough… think one-to-many on almost every level. We are seeing the entire system as a series of relationships and logic that plays into the puzzle. Maybe an ice-down date for sales tax, bank stuff, inventory stuff, sales, etc.
* Go over the calculateTaxes method with a fine-tooth comb. This is the main crux of the system and all taxes are calculated
	+ Very important to check the number of decimals and run through tons of different scenarios… Try to trick it and break it.
	+ Add the new logic for the limit by customer types – test this out
	+ Follow all occurrences of this method… you will have internal carts, invoices after the fact, edits on invoice line items, recipe stuff, custom code, and ecommerce. Most things functions have a way to add them, a way to update them one by one, and a way to update things in bulk. Be aware of that.
* There is some JavaScript that calculates taxes on the advanced add to cart page, the advanced edit cart page, and even my cart favorite buttons (backing into taxes). We need to pull in the new pieces to those pages. It could get really tricky with the part category id and customer type id filters. Be aware of that as well as more variables and values playing into the calcs.
* Things get crazy with discounts…
	+ This may need to be expanded and looked into.
	+ On the corp-wide settings… We need to set the “Discount” item set to taxable by default.
	+ We know that there is a dollars off discount project and it really needed… do we want to roll the two projects together or keep them separate?
* We have add to cart stuff
	+ Follow every known option in… basic search, advanced searches, view items, all kinds of barcodes, my cart favorite buttons (all different types), QR codes, sub inventory, recipes, restore to cart, duplicate to cart, ecommerce, etc.
	+ We have to go through the stock/unit sales process… That is a multi step process for big ticket items. This process could use some help… Maybe standardize what we can and help it roll through. We may need to circle back on this process later on. This could get us off track.
	+ Lots of new math calcs and changing tons of formatting from 2 to 5 decimals. We need to be strategic on those changes and make sure we are capturing good enough data. Basically, don’t just globally force things to a certain value.
* We have edit or update cart stuff
	+ Similar cascading things and checking all kinds of angles
	+ There are different edit modes (basic, advanced, multi, and other custom options)
	+ This may fit somewhere else, but on the quote line items and invoice line items tables… we want a new little flag that helps us know if the value was auto calculated or manually calculated (plugged). We need this inside the cart on both add and edit modes. It also needs to flow out of the cart and into quotes and invoices. Later on, we could pull reports on this.
* We will have printable quote stuff. Normal and PDF and ecommerce
* We will have printable invoice stuff. There are multiple versions of the invoice. There is normal, printer friendly, limited, summary, multi, mini version, PDF, ecommerce. There may be more…
* We will have report stuff. This could get pretty deep…
	+ Sales tax reports (already 4 different layers exists)
	+ What about reports based off of watchers and feeders?
	+ Advanced invoice line searches
	+ Super advanced invoice line searches
	+ Sums and other values cascaded around to sales reports, daily/weekly, and even Balance Sheet totals. The balance sheet currently pulls some running totals. Where or what is the plan there?
* We are seeing some of the operations pieces flowing over to the financials. Keep looking to the full life cycle and full story of the objects and data over time.
* On watchers and feeders… we need to collect data per day, per category, and per location. We also need base numbers (what to run calcs on), what was collected (what was actually stored), what should be attributed (possible projections or calculations done after the fact), and what the difference are (diff = projected - actual).
	+ We also need to record the human readable options (maybe 1-3 or 1-5 for special flags), what main table to look back at, and what column name and main id to reference. See graphic or screen shot.
	+ If we don’t get all of the financial connections made at the first… make sure that it can still flow through using the human readable flags and such. Then when it gets fully connected in… we could do a reverse update back on the watchers and feeders to make sure that everything is updated and maintained. Think of this as a global backward re-alignment process or something.
	+ On the watchers and feeders, add flags to help us know if they are a manual entry (standalone declarations) or auto process or auto calculated (system generated). This is huge to help us know what is going on… We can show this on reports and what not.
* On expense types, deposit types, and balance sheet types, open up the chart of accounts for Kelly.