CabinetSense Wiki

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32mm System

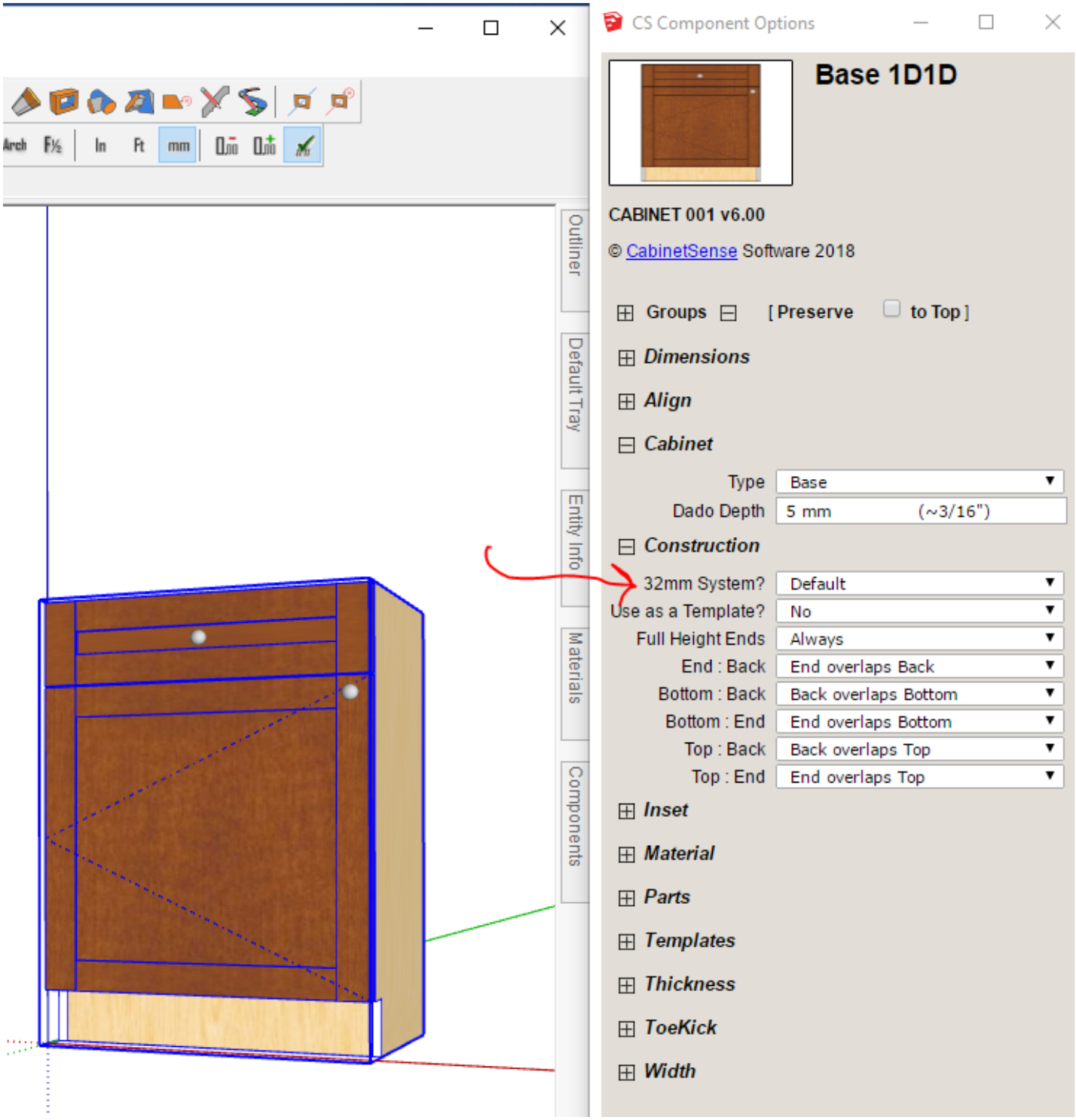
What is the 32mm system?

The 32mm system is a standard where you use 32mm lineboring on a cabinet and have all your shelf, drawer slides, door hinge clips line up with the 32mm holes. In essence, the lineboring holes become the holes for all other parts to attach to. Ikea is famous for building their cabinets this way.

Cabinet Component

We've gone to great lengths to make this as seamless and easy as possible to use. You have the choice of designing using your traditional methods or with the 32mm standard. With the simple toggle of one setting, CabinetSense can conform your entire traditional model to the 32mm building standard.

Here's how we do it. Every Frameless Cabinet has the build32mm attribute (faceframe cabinets do not have this feature).



You have the choice to turn 32mm on, off, or leave it as default (recommended).

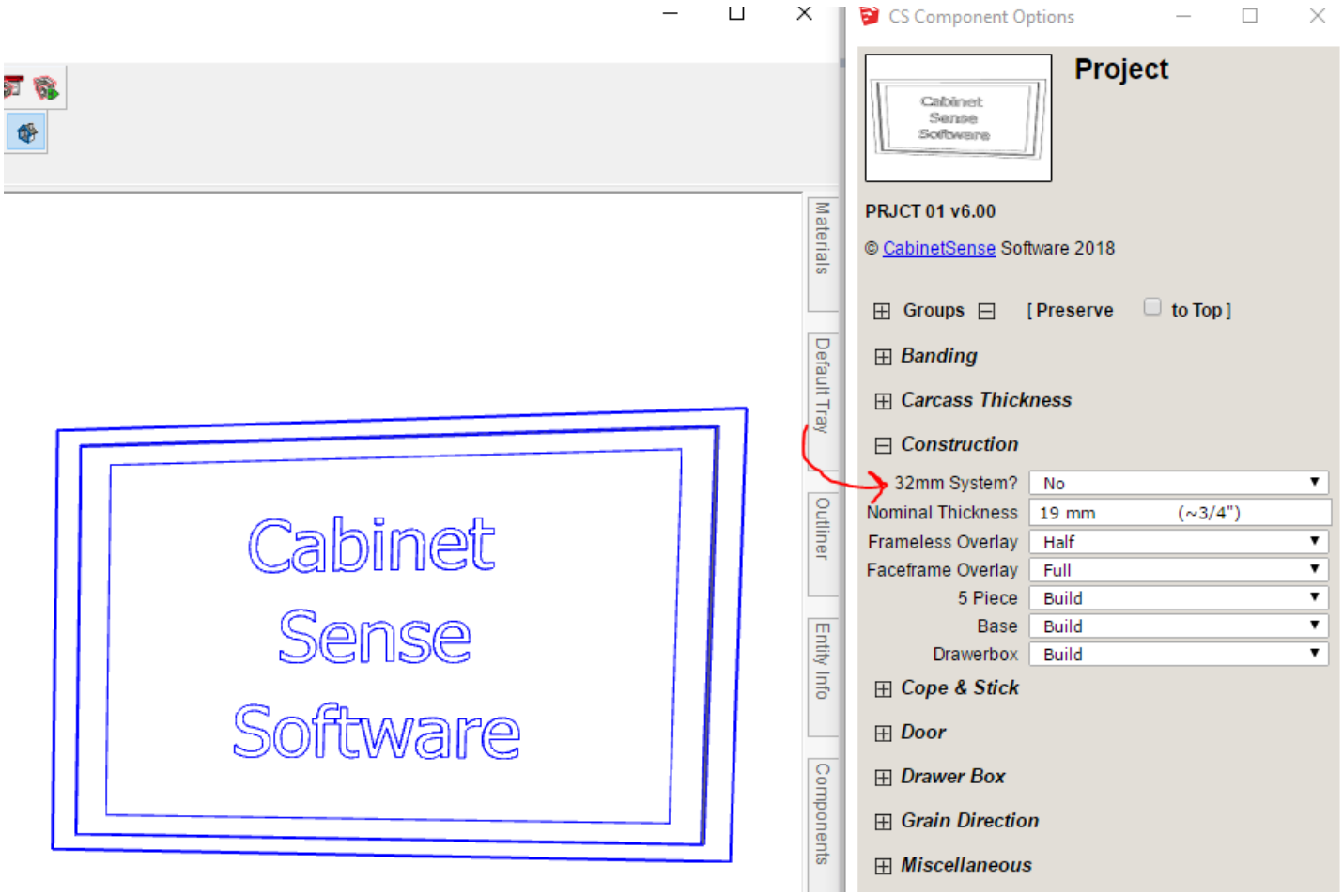
If you choose to turn on the 32mm system, CabinetSense will evaluate the cabinet and all its internal parts and settings. It will re-align parts where needed and change other critical settings to conform to the 32mm build. From then on, every part that you add to the cabinet is controlled by the 32mm process. CabinetSense will adjust positions when needed… so you don't have to worry about placing items on 32mm boundaries… we do it all for you… automatically and seamlessly.

If you decide to turn off the setting later, All parts remain where they are, but new positioning is no longer controlled by the build 32mm process. Decide to turn it back on again? No problem, we'll re-evaluate and change the cabinet parts where necessary. There are several reasons why we chose this approach, but the main two factors were:

- ***Let Designers design***: You can leave your Designers design in whatever method they are most comfortable in. Let them use the imperial system, choose door heights that they are comfortable with. Your engineers can turn the model into a 32mm standard, review and revise where needed and send the entire job off to the shop floor.
- **Use your non-32mm libraries**: You don't necessarily want to develop an entirely new set of libraries to support the 32mm process and we don't want to force you to do that either.

Project Component

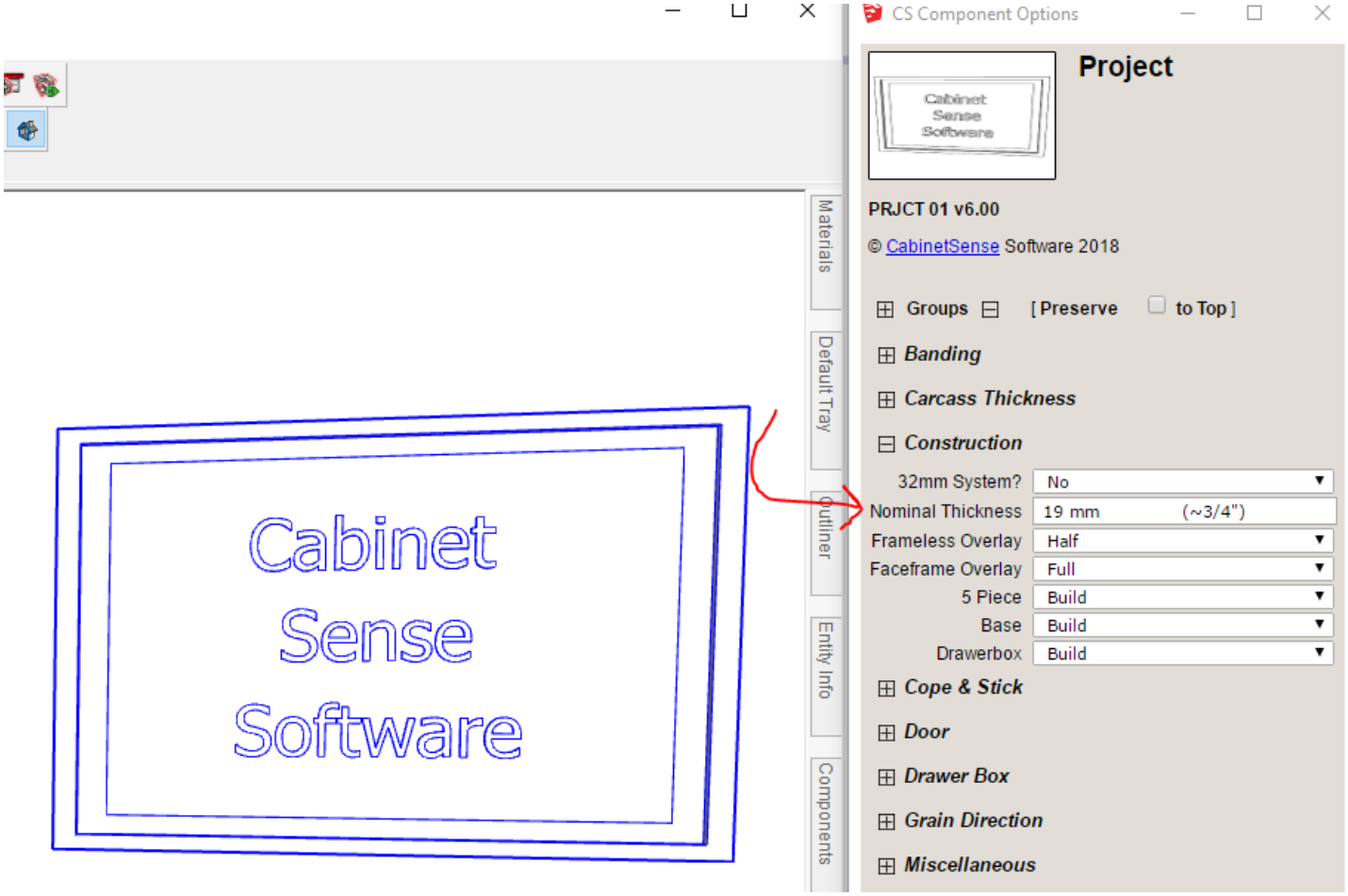
The project component also has a build 32mm attribute.



The default setting for this attribute is ***No***. When you set it to ***Yes***, CabinetSense will review your entire model and any Cabinet that has it's setting to "default" will be reviewed and adjusted where necessary to conform to the 32mm build.

Nominal Thickness

Nominal thickness is a crucial aspect when using the 32mm system. It allows you to use the actual material thicknesses in manufacturing while still ensuring that all components sensitive to thicknesses use the nominal thickness when calculating the placement of machining operations.

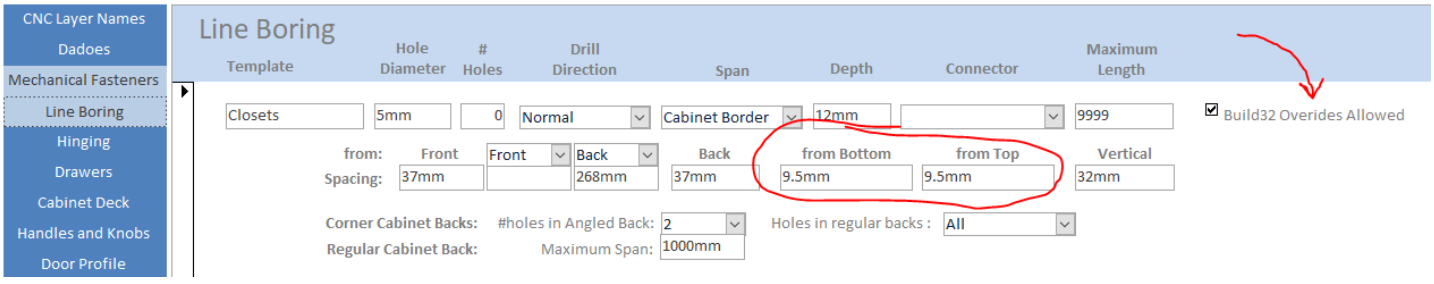


Currently, only the door hinging and drawer slide drill holes use the nominal thickness to guarantee that their holes will line up with your lineboring setup.

NOTE: The above parts are only affected by the nominal thickness ***IF*** you have the 32mm system attribute turned on (either project wide, or cabinet specific).

The value that you enter will be the thickness that you used when setting up your lineboring. This should be the total of the top and bottom spacing fields (see below).

NOTE: if you have *"Build32 Overides Alllowed"* checked, CabinetSense will manage the from Bottom and from Top values for you and will make it ½ the nominal thickness.



Connectors

When a connector is sensitive to the thickness of material (EG. Rafix), CabinetSense will use the nominal thickness (rather than the actual thickness) to find the specific connector to use. This allows you use a connector that is made for a minimum thickness 19mm material, but use it your actual material is marginally less than that.

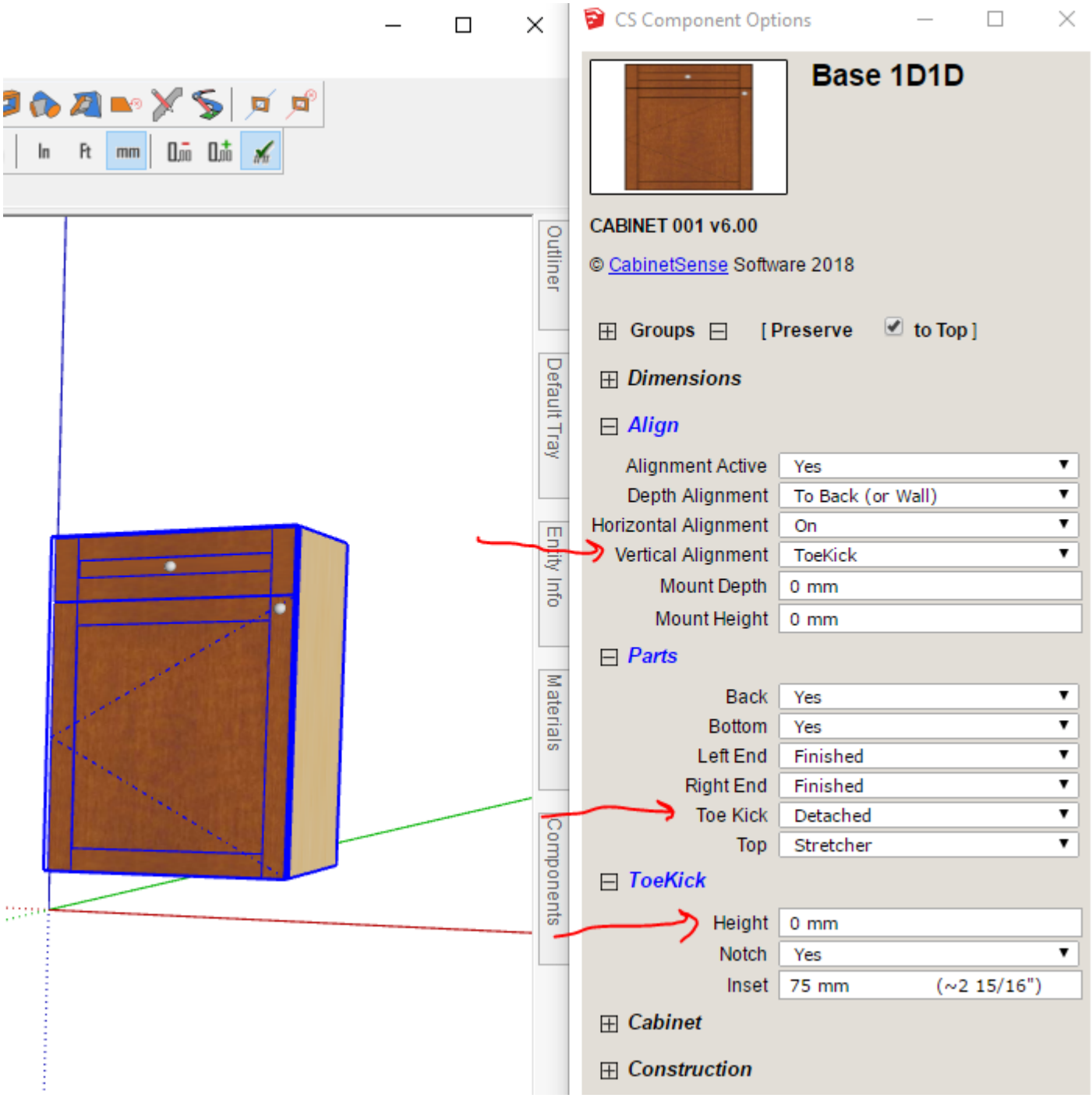
Normally, CabinetSense will only select a connector where the designed thickness is <= the actual material thickness.

NOTE: The Connector lookup will use the nominal thickness regardless of your system 32 setting.

Automatic adjustments

CabinetSense makes the following assumption when you wish to use the 32mm system. All thicknesses of relevant parts will be the same. This means that your cabinet top, bottom, fixed shelves should all be of the same thickness. CabinetSense assumes this to be true because there are many valid situations where you may want to overide thicknesses… no adjustment of actual thicknesses are made

- **Cabinet Height:** The Cabinet Height is adjusted to a multiple of 32 Plus the thickness of your top that gets it the closest (+/-) to your actual cabinet height.
- example: a cabinet with a height of 34.5” (876.3mm) and material thickness of 16mm is changed to 880mm (27*32 + 16).
- **Toekick Height**: Toekick height is set to a multiple of 32mm that gets the closest (+/-) to your specified toekick height.
- Note: if you want to keep your toekick height at a non-32mm multiple, you have to use a detached toekick setting, a zero toekick height and set your vertical mount of your cabinet at the toekick.



- **Inset Top Height**: This setting will also be changed to a multiple of 32, applied in the same manner as the toekick height calculation.
- **Fixed Shelves**: The bottom of the shelf will be adjusted so that it is a multiple of 32mm, applied in the same manner as above.

Note: When 32mm is turned on, CabinetSense intercepts and adjusts any of the above positions or heights as required. So even if you try to set it to a non-32mm multiple, CabinetSense will change it back immediately.

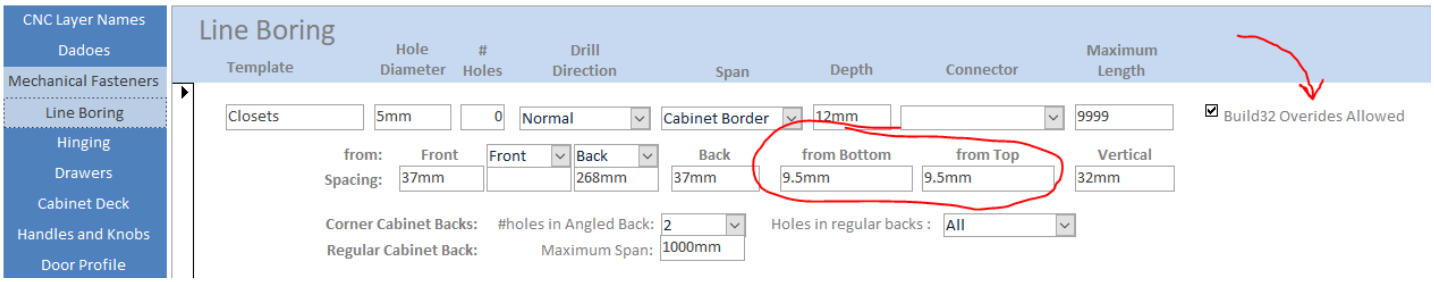
Note: Any other CabinetSense or SketchUp procedure that results in a shelf moving or a change in one of the above heights are intercepted and adjusted back to an appropriate 32mm boundary.

How do I setup my machining

Setting up your machining is a critical part to making your parts line up and use the standard lineboring holes. Fortunately, CabinetSense makes it easy to do this.

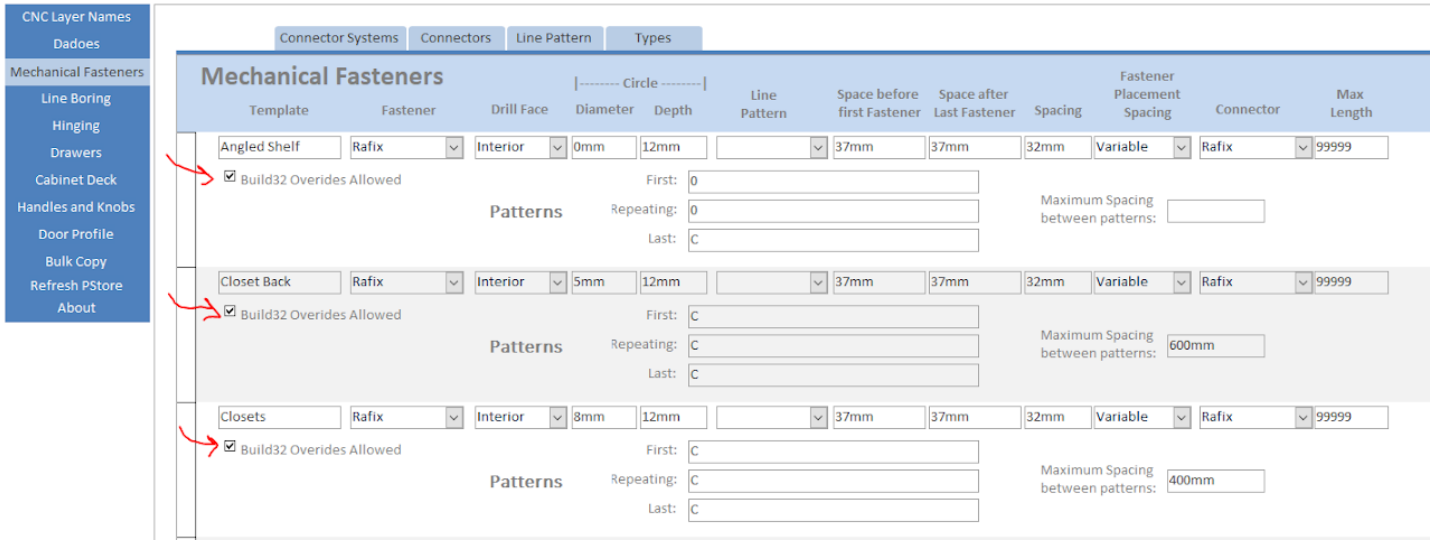
Here are the parts that you need to consider:

- Lineboring: What we want is lineboring holes that start at the bottom of the cabinet and proceed to the top in 32mm increments. CabinetSense uses an adjustable shelf to control how lineboring is applied.



- Notice in the above example, the Spacing from top/from bottom is set to 9.5mm. CabinetSense will automatically adjust this to ½ the nominal thickness (declared in the Project Component) when you have ***"Build32 Overides Allowed"*** checked.

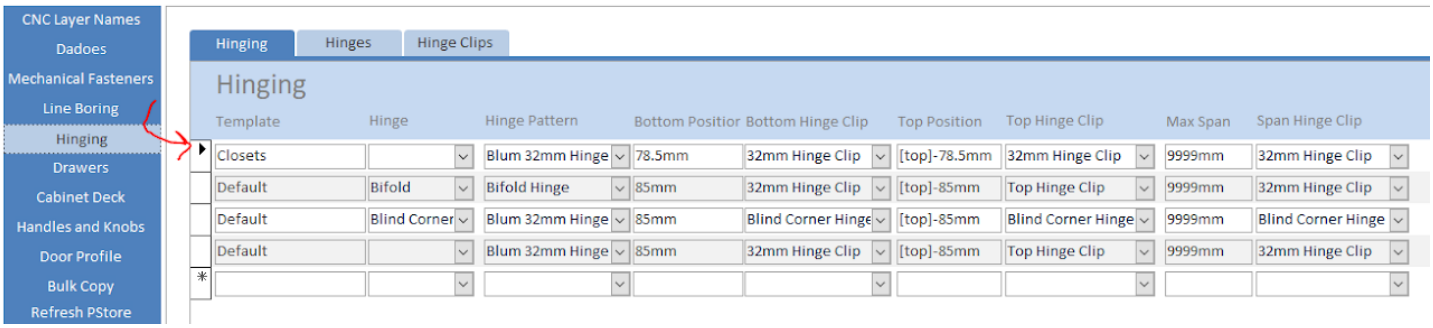
- **Mechanical Fasteners** (Rafix, Minifix…): It is typical in these types of builds that you may use cam-lock type fasteners. We have setup templates using the Rafix connector, but you can add your own if you choose to use different methods of fastening.



- Notice that ***"Build32 Overides Allowed"*** is checked. This gives CabinetSense the permission to automatically adjust settings in these templates so that positionality will be locked into the 32mm lineboring setup. Leaving this field unchecked will mean that you are responsible for setting up the required templates and any variations that you might need.

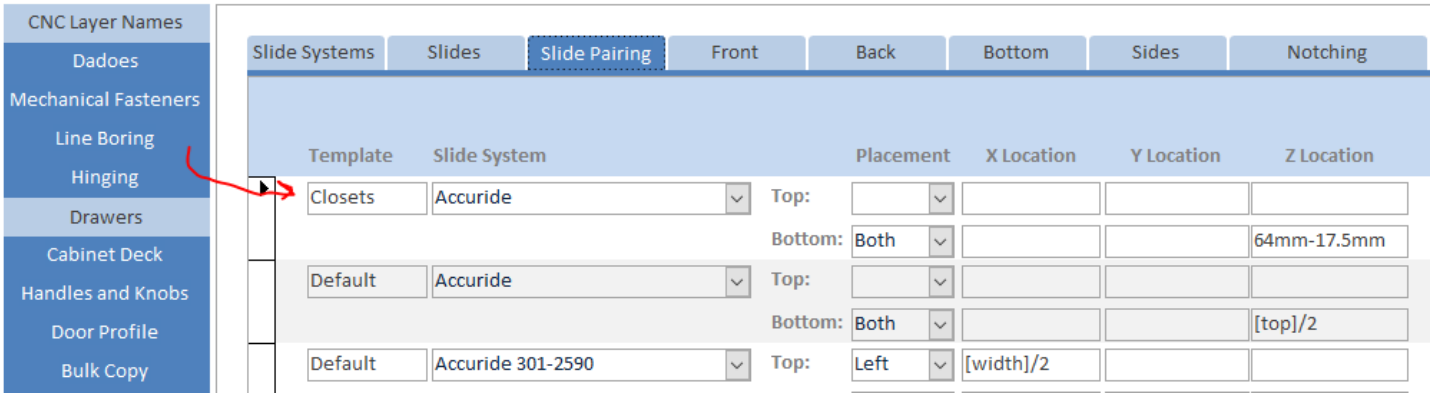
- **Doors:** You want your door hinge clip holes to line up with the 32mm lineboring as well. This might take some experimentation until you get it to line up. The settings below work, but may not be where you ideally like to place your hinges.

- The nice thing about using the 32mm system… is that once you have your settings dialed in for one door… they work for all doors.



- **Drawers:** The drawers present the most potentially complicated setting of all the items. But even this is relatively simple in CabinetSense. For our example, we have gone with a side-mounted accuride slide.

- To move the slide hole placements up (or down) In order to match up to the lineboring holes, we use the Slide Pairing tab. This tab moves both the holes used to mount to the carcass as well as the holes drilled into the side of the drawer box.

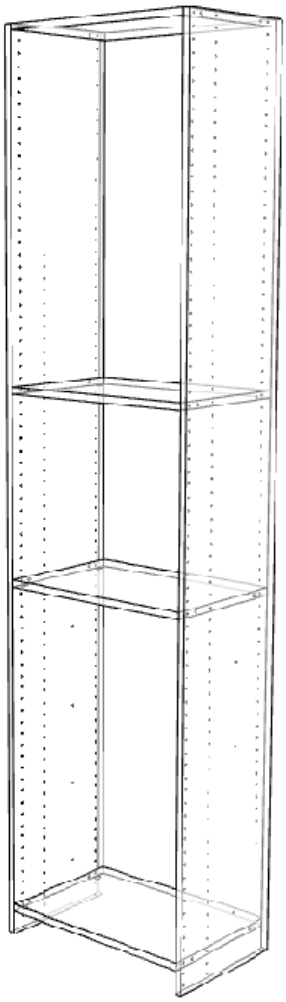


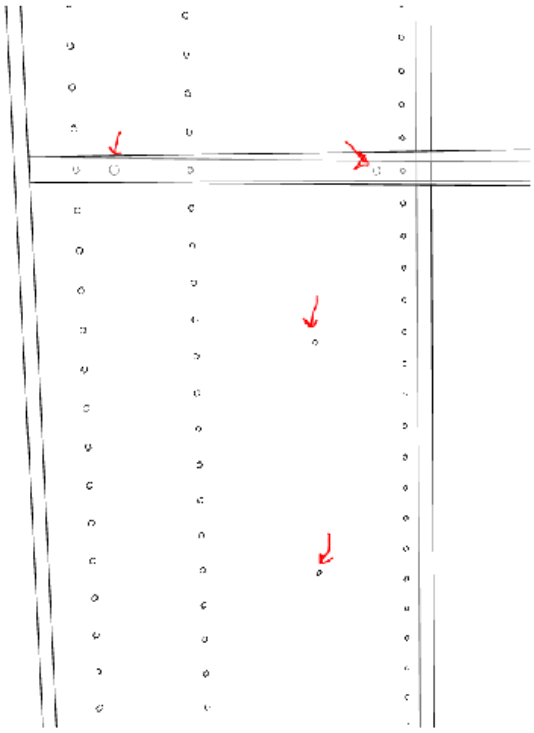
That's it! You've now set up your machining to match with your lineboring holes. The really great thing about this, is you are using all of your normal settings and only overrode those required for system 32.

Putting it all Together

Here is an example of the machining after it has been applied to a system32 cabinet. Notice that with the doors and drawers removed, 99% of all holes that you see are lineboring holes.

the extra holes (see closeup on the right) belong to slide holes that didn't fall into the 32mm boring pattern as well as the 8mm dowels that I chose to add for additional support of the fixed shelves.





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