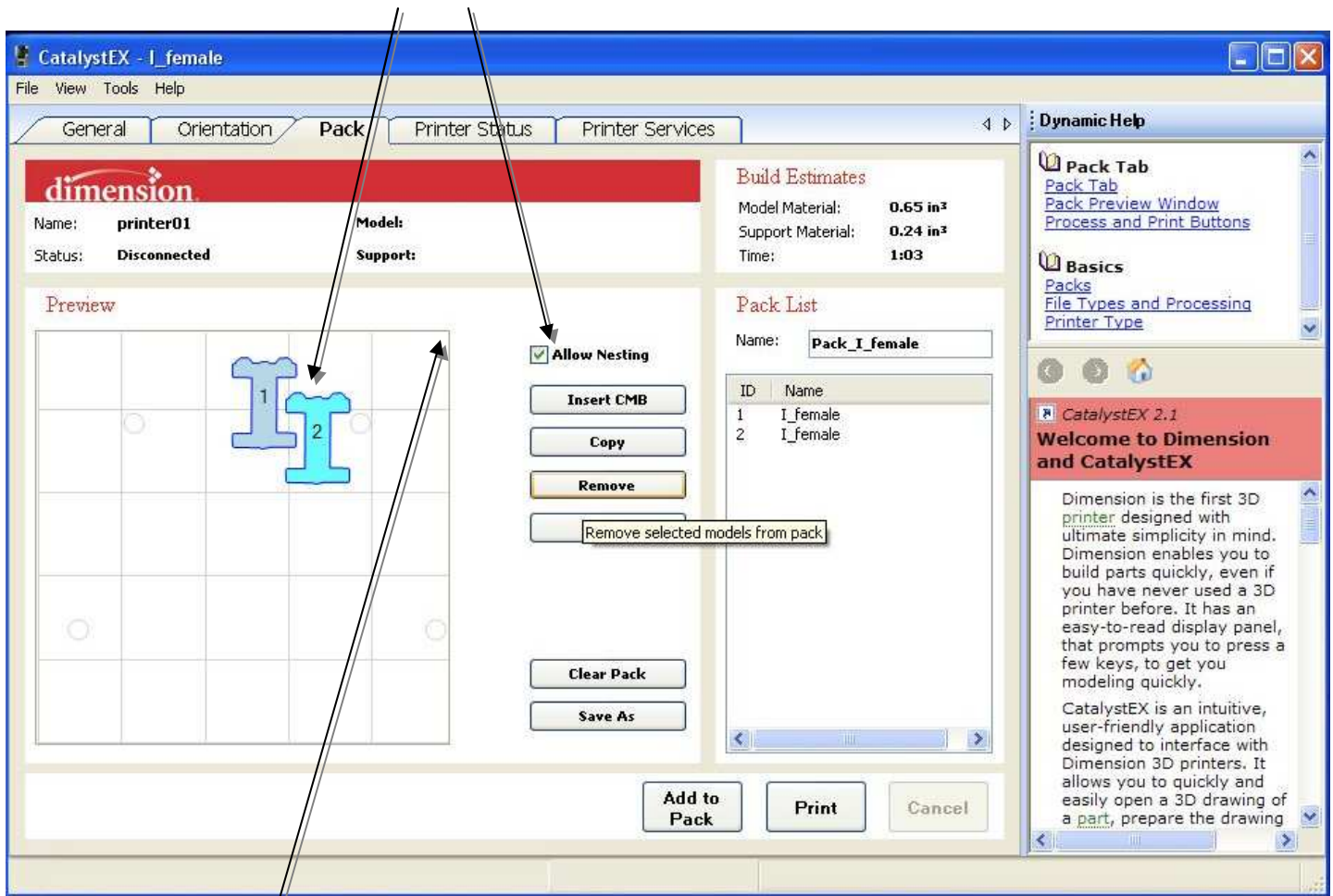


3D Printer Advanced Topics: Layout Considerations (Nesting and Speed)

The nesting option provides a way to fit more parts in the layout to be printed by allowing the operator to bring parts with protrusions and odd shapes closer together (this will have no effect on parts that have a square cross section). The printer software draws a box around the outermost dimensions of the part, and will not allow any adjacent parts to cross into the box. This guarantees that there will not be any overlap between parts. **Note: If nesting is enabled, there is no way for the software to eliminate overlap between parts, which would damage the printer. Make sure that parts DO NOT overlap before continuing.** Nesting also allows for greater speed when printing by shortening the distance the head has to travel between parts for each layer.

The boxes drawn around these parts by the software are overlapping. If nesting were disabled, the parts would be forced farther apart in the layout. Be sure to leave a gap between parts even when nesting to allow air flow for cooling.



Cluster parts close to the top-right corner for further improved speed when printing.

The speed of the print job can also be improved by clustering the parts in the layout closer to the brush in the print compartment. The brush is located in the back-top-right corner of the compartment, which in the layout view corresponds to the top-right corner. The head passes over the brush between each layer for cleaning, so clustering parts near the brush reduces the travel distance of the head between layers, which improves speed when printing.