Subject: Re: What are Splines? (nt)

Posted by BillEpstein on Sun, 09 Jan 2005 08:42:28 GMT

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Splines are reinforcements or, as I just discovered while Googling the word, frames for 3-D Computer Graphics modeling. The link tells how to use them to repair a screen. Same technique for installing grill cloth. Woodworking splines are narrow bits of wood that are used to join 2 workpieces, like using biscuits. When making a tabletop, for instance, you would cut a Dado (groove) in each of the edges of the pieces to be joined into the top. Correctly cut, splines in the grooves help align the glue-up and strengthen the joint. Splines in picture-frames are placed where the corners come together to align and strengthen the miter joint. In both cases a weak Butt joint becomes a mechanically strong one which has most of the features of a Mortise and Tenon Joint, one of the strongest joints in woodworking. To make the joint, first cut the miters. Then run each of the cut edges over the blade of the table saw, holding the workpiece so that the angled cut edge sits flat against the table. Make 1 pass with each of the 8 ends then another moving the fence a bit to create a groove just wide enough to accept your spline stock, usually 1/4" thick. If you have a Dado set of blades you can do this in one pass. Now dry fit the frame pieces and splines to be sure the width of the splines matches up with the depth of the grooves and the workpieces can be drawn tight. Too wide or too narrow splines will ruin the joint. The splines should protrude past the edges of the workpiece inside and outside of the assembled frame. Now glue-up the frame. Properly sized splines will eliminate the need for clamps as they will swell a bit with the wet glue and hold the workpieces. Tape or small clamps can be used but the splines generally are in the way. There are special corner clamps that allow for the protrusion of the splines. After the glue is cured, trim off the excess spline material with a block plane and/or chisel. You have a strong and good looking joint.

Screen Splines