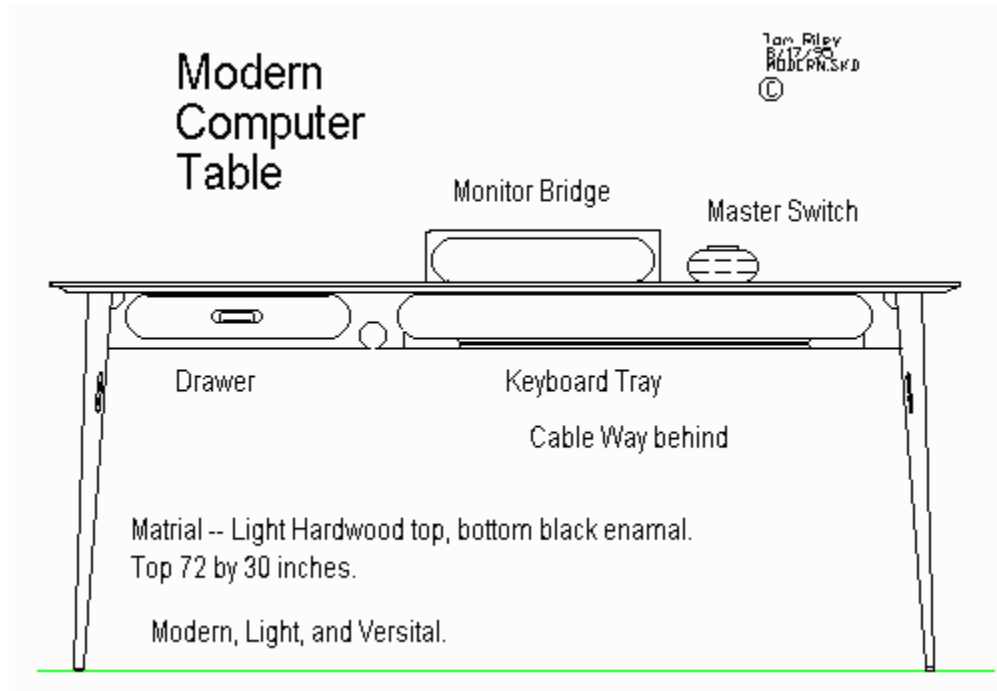


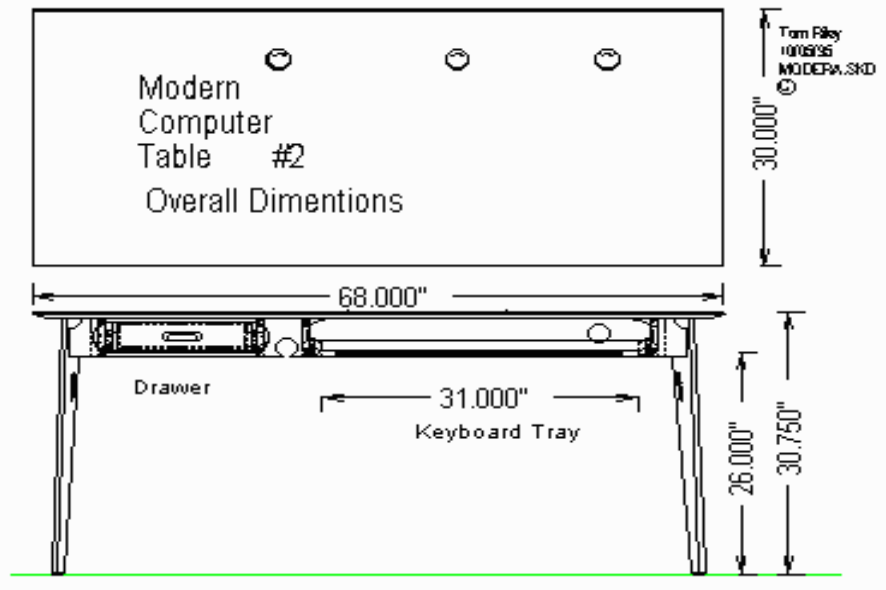
Modern Computer Table



This design is large clean and light. The table edge is cut back and the legs thin and tapered. It features a keyboard tray, a pencil drawer, and cable way. A matching monitor bridge and power switch complete the design.

This design is very versatile and can be pressed into temporary surface for many other tasks (changing table, sideboard, card table, etc.). This table makes a much better gift for baby than a cradle or child's table. They will use it all their lives.

An good worker can build this design in a home workshop. You will need a table or radial arm saw to cut the tapered legs or you can hand plane them. You will need to do hand planing and use a biscuit cutter to glue up the desk top.



Some people choose the Modern Computer Table because it is a versatile piece of furniture. When not used for the computer, it can be used for a sideboard or even a baby changing table. This versatility makes it a particularly nice gift.

All the materials can be bought at your local home improvement store for about \$320.00.

• Ordering the Sketches

This design includes nine detailed sketches that are critical to your successfully building this desk. Here is where to get all the **ordering information**.

• Table Construction

You can make this table by:

1. Downloading this text.
2. **Ordering the sketches.**
3. Studying the information and locating materials.
4. Purchasing materials.
5. Cutting wooden pieces.
6. Assembling the table.
7. Finishing all pieces
8. Installing the computer.

1. Discussion of Sketches

After you download the sketches, these notes will help you understand them.

1. Modern Computer Table Front View (above)

This front view of the Modern Table shows the keyboard tray, drawer, monitor stand and master switch.

2. Modern Computer Table #2, Overall Dimensions

This drawing shows the overall dimensions of the finished table. Note the width of the space available for the keyboard and mouse and the height of the tray above the floor.

The table top shows three cable through holes. The construction of these holes is covered in a separate document on our Web Site. If you choose not put in cable holes then you will risk damage to the cables between the table edge and wall.

3. Modern Computer Table #3, Side View

This drawing shows the side with the table width and height. The decorative hole in the side passes all the way through the table.

4. Modern Computer Table #4, Top Removed

This drawing shows the construction frame with the table top removed. Note the details of the leg attachments and that the keyboard tray slides pass through holes in the center board.

The frame does not need to be made from as expensive hard wood as the top. These boards can have a few knots and other imperfections.

5. Modern Computer Table #5, Side-to-Side Pieces

This drawing shows the details of the frame pieces that run side-to-side. Note that a front consists of the drawer front and few small pieces. The Center Board has dado for the from-to-back pieces and cut-outs for the tray slides.

6. Modern Computer Table #6, Front-to-Back Pieces

This drawing shows the wooden pieces that run front to back and the leg. The ends have dados for the side-to-side pieces. Some of the holes are decorative and some are for cables. The slot in the leg was made with a biscuit cutter and can be used to secure tie-wrapped cables.

7. Modern Computer Table #7, Keyboard Tray

This drawing shows the details keyboard tray. Note that the sides are wide enough to take the heavy duty drawer slides.

8. Modern Computer Table #8, Drawer

This drawing shows the details if the small pencil drawer. This drawing shows a double thick front pieces that is attached with screws. You can dovetail the front on if you like.

You can simplify the Drawer construction if you like or buy drawer parts from a woodworking mail order house.

9. Modern Computer Table #9, Small Parts

This drawing shows the miscellaneous small parts like the diagonal brace for the leg. It also shows and assembly jig to help in building the frame.

10. *Materials*

The Modern is made of American hardwood. The top is the show piece and is made of the best wood. The frame is made of lesser wood and is painted or stained very dark. The legs are a purchased item.

1. Hard Wood

- Fine hardwood (red oak) ----- 15 board feet ----
\$84.00
- Secondary hardwood (popular) ----- 21 board feet ----
90.00
- 1/4-inch Plywood ----- 3 sq. feet ----- 6.00

----- Subtotal: \$180.00

2. Hardware

- Drawer Pull -----1 ----- \$6.00
- Drawer guides, ball bearing ---- 2 ----- \$36.00
- Table Top Attachments ----- 6 ----- 2.00
- #8 x 1.25 flat head ---- Box of 100 ---- 3.00
- Feet ----- 4 ----- 4.00

- Glue ----- 1 pint ----- 4.00
- Construction Hardware Subtotal: ---- \$55.00

3. Finish:

- Stain ----- 1 Quart ----- \$ 9.00
- Shellac ----- 1 pint ----- 6.00
- Shellac thinner ----- 1 pint ----- 4.00
- Tong Oil ----- 2 16 oz. ---- 14.00
- Enamel Paint, oil based -- 1 Quart ----- 9.00

-----Finish Subtotal: --- \$42.00

4. Omissions and Contingencies (~13%)

----- (Tax, sand paper, etc.) \$42.00

5. Estimate Total Cost \$320.00

This is only an estimate (made in the winter of 1998). The price may vary in your area. Getting a good price on the hardwood is key to keeping the price down.

11. Tools

This table was designed so that it could be build by an amateur woodworker with a modest home shop. It requires the use of a radial-arm or table saw and common hand tools.

12. Fabrication Notes

This is not intended to be a detailed step-by-step construction guide but rather a number of points to consider. It is your table and you can build it to suit your likes.

1. Options

Look over the table drawing as decide what you are going to do:

1. **Hardwood Choice** -- The top can be made from any good American hardwood including white oak, red oak, ash, maple, hickory, or pecan. The frame can be made from a less expensive wood, like popular, and painted.
2. **Attaching Table Top** -- Decide how you are going to attach the table top.
3. **Drawer Guides** -- You need a heavy duty metal drawer guide for the keyboard tray but you can use what every you like for the drawer.
4. **Frame Color** -- The frame can be any dark color including black, dark red, dark green, or dark blue. The legs can be finished naturally or painted to match the frame.

2. Overall Assembly

A table top made from hardwood planks will expand and contract with temperature and humidity. If you try to bolt it solidly to a strong frame, then something will crack. Our note on **attaching table tops** gives several ways to do this.

To prevent this type of damage, we need to build a strong frame and mount the top so that it can expand and contract separately. This is not difficult to do but it means the frame must stand alone and take little of its strength from the top. This can make the difference between a piece that lasts five years and one that lasts one hundred.

For a good computer table we need to bring the keyboard down to almost lap level. The keyboard tray accomplishes this but cuts a big hole in the table frame in the process. This makes the frame much more complicated than one for a normal table.

You have two separate tasks; build a table top and build a table frame. The two are built and finished separately and only put together in the final assembly.

3. Table Top

The table top is the primary display of this design. It should be of fine hardwood and carefully finished. This is where you should put your money.

The table top planks are edge glued. Using either tung-and-grove or biscuits will insure good alignment. The top edges rounded. This is best done with a hand plane.

Round the corners of the top top about a 1/2 inch radius. Only solid hardwood can be rounded in this way. This make your table quite distinctive from the usual Formica and chip board with all its uncomfortable sharp edges.

4. Cable Holes

The cable holes show are detailed in a separate note on **cables** on our site. They help you to get the computer cables out of site and out of harms way. You will need to decide on their number and placement to suit your particular computer equipment.

5. The Frame

The frame is held together with screws and glue. It is made from about 27 separate wooden parts and requires some attention to assemble.

0. Decorative Curves and Holes

The Modern table frame features simple decorative curves and circles. These can best be cut with a arbor saw in a drill press.

1. Frame Pieces

The frame pieces have cable holes, tray slider holes, and dados. All the dados are 1/4-inch deep and 3/4-inch wide except those in the drawer.

Out-of-site cable holes need to be at least 2-1/4 inches in diameter to accommodate the largest connectors. The hole for keyboard and mouse cable can be as small as 1 inch as these cable connectors are small. Round off the edges of all cable holes.

2. Frame Assembly

You will probably want to dry-fit the frame, using the screws but no glue, first. The disassemble it and glue it back together.

Start with the legs and end boards. The jig shown in Sketch #9 will help. With the frame upside down, install the Center Board. Drawing #4 shows screws angled in from the bottom so that they do not show from the sides.

Install the Middle and Rear Bottom Boards. Then install the center stiffeners and the drawer area bottom boards.

The frame is now complete except for the tray and drawer guides which will be fitted later. It should now stand on its own as it has most of its strength.

Wait until you are happy with all the pieces of the desk before disassemble the frame and glue it.

3. Keyboard Tray

The keyboard tray is made from thin hardwood plywood in a hardwood frame. The curved ends of the front piece continue the decorative curves of the front.

4. Drawer

Drawing #8 give details for construction of a simple drawer. The front joints are shown as but joints but a dovetail would be better. A good dovetailed drawer adds considerably to the value the piece. The dovetail can be cut by hand or with a router and jig. Either way, you will want to practice on scrap wood until you are completely satisfied.

It is also possible to purchase drawer parts from a mail order house. You may then need to adjust the width of the Keyboard Tray to accommodate available drawer part sizes.

6. Mounting the Top

The drawings show six special pieces of top mount hardware. These have one screw up and one down. They can be purchased mail order but are sometimes found in the speciality hardware boxes at Home Depot. Several approaches are possible.

There are number of ways to mount a fine table top to its frame. One approach use special pieces of hardware. These are short, rounded pieces of flat metal with holes for one screw pointed up and one pointed down. They have to be let into the frame with a simple paddle drill bit. They are available at most hardware stores and wood mail order houses but you have to look for them.

Another way is to cut a saw cleft in the inside of the outside frame pieces. You then fashion small wooden blocks that fit into the saw cleft and screw to the table.

Whatever you do, do not screw the top tightly to the frame. These two parts must expand and contract separately.

13. Finish

You may finish your table any way you like. I recommend: oil stain, a spit coat of shellac, and many coats of tung oil finish for the top and legs. I would use a sealer and oil-based paint for the frame. Finish the top and legs disassembled from the frame on reassembly. The Keyboard Tray is also highly visible and deserves attention.

- **Staining**

Most modern furniture was done in blond colors but some was died strong primary colors like red.

Work with the stain color that you have chosen. Practice on a piece of scrap wood. Do not start on the panels until you are satisfied. Do not hesitate to write off an \$8 can of stain and go purchase another of a different color.

- **Spit Coat**

A spit coat made of one part 3-pound shellac to five parts shellac thinner makes a good wood sealer.

If the side and end grain hardwood take the stain differently, you can apply a spit coat to only the one that stains darkest (usually the end grain). This will limit the stain penetration to more closely match the finishes.

A spit coat can also be used between applications of stain and as a general sealer after staining.

- **Exterior Finish**

I like a modern tung oil finish such as:

Formby's Tung Oil Finish

These are applied with a cloth pad rather than a brush. This table will take at least two 16 oz. bottles; three will be better. Follow the instructions on the bottle carefully and apply a liberal number of applications on all work areas. The toughest finish is needed on the keyboard shelf directly in front of the user.

- **Frame Paint**

Painting the frame adds enormously to the enjoyment of this piece. You may need a seal and two color coats. The entire keyboard shelf is easily removed and finished like the top.