

# Glazed chest



**Martin Greshoff** shows how he made this contemporary video and DVD unit featuring stunning glass inlays

This cabinet was designed to support a television and to house the video and DVD equipment. Because of this, the cabinet is on concealed castors so it can be moved easily. The interior decoration of the room that the cabinet was going into had a modern feel. The other furniture in the room was contemporary and constructed out of a variety of timbers, most of which were light coloured. This inspired the use of contrasting timbers for this piece and allowed the design to be contemporary and simple.

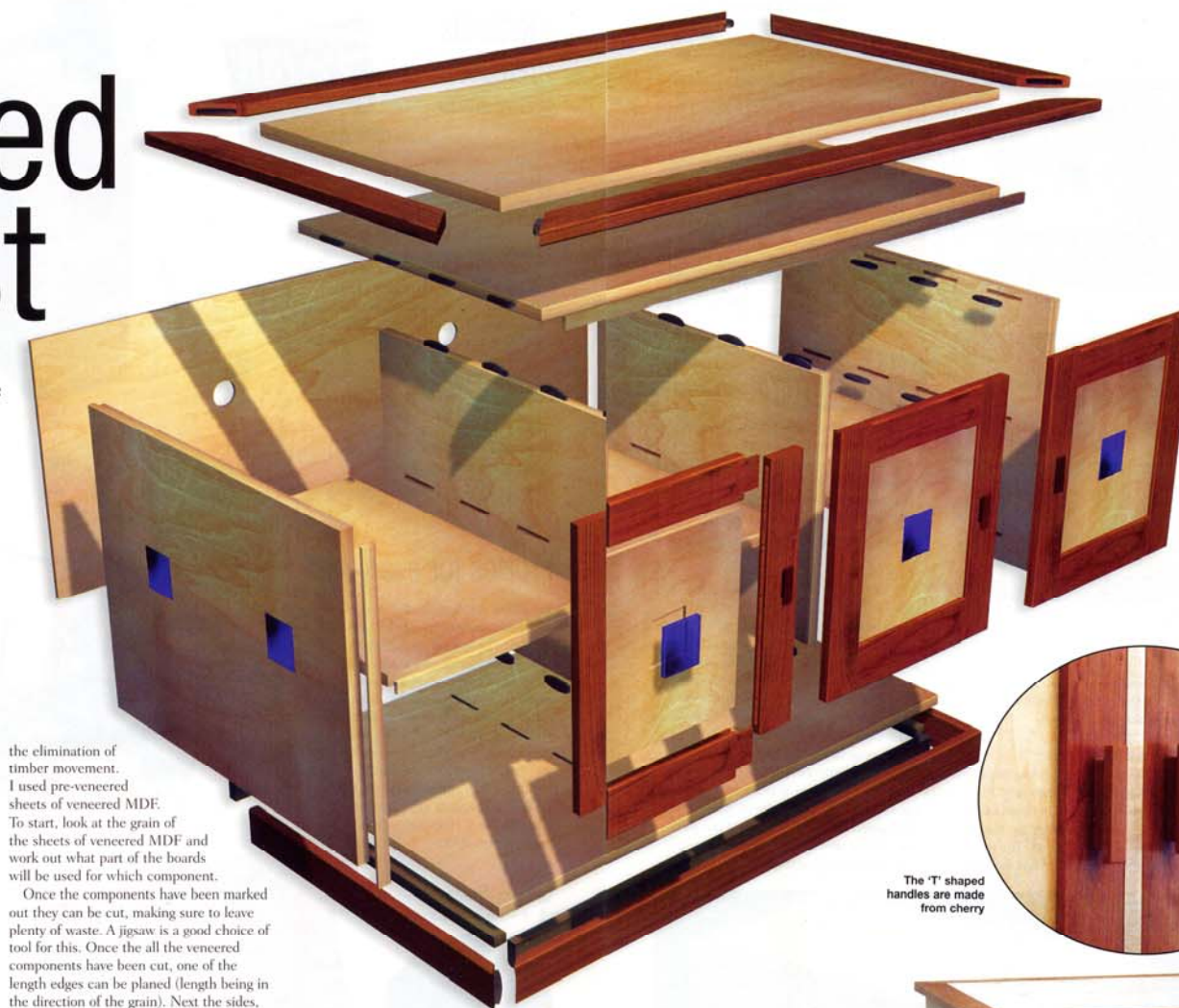
The construction of this

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## Construction methods

The construction of this cabinet combines contemporary and traditional construction methods. The carcass, back and door panels are constructed using crown cut maple-veneered MDF. The door frames, top lipping and plinth and lippings are made with solid cherry and maple. One of the advantages of using a veneered board is



the elimination of timber movement. I used pre-veneered sheets of veneered MDF. To start, look at the grain of the sheets of veneered MDF and work out what part of the boards will be used for which component.

Once the components have been marked out they can be cut, making sure to leave plenty of waste. A jigsaw is a good choice of tool for this. Once the all the veneered components have been cut, one of the length edges can be planed (length being in the direction of the grain). Next the sides, vertical divisions, sub top and shelves can be cut to the right widths, making an

allowance for the lippings. Once cut, the sawn edges are planed. Next, the maple lippings are prepared and glued to the two planed edges. For this and all other gluing up work in this project I used a urea formaldehyde type of adhesive (for example Cascamite or Extramite). Leave the lippings over-size in width and trim after the adhesive has cured. A router or plane can be used to do this.



## MARTIN'S TIP NO.1

**Work out the board grain pattern**  
The choice of grain is very important as it will have a big impact visually on the finished piece.



## MARTIN'S TIP NO.2

**Use sacrificial board to stop break-out**  
To prevent veneer break-out when cross cutting veneered MDF try laying a piece of scrap MDF under your work and then cutting through both.

teeth the better. Next the base can be cut to size. This is not lipped as the plinth will act as a lipping. Rebates are cut on the back edges of the sides to take the back.

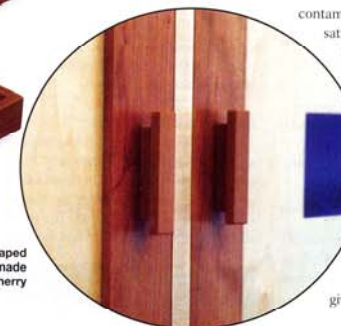
## Joining the carcass

Now we have all the components for the carcass cut to size we can move on to the joining of the carcass. This is done using No.20 flat dowels (biscuits). The positions of the vertical divisions can be marked out on the base and sub top. I used four biscuits per joint. The biscuit slots can be cut on these components. On the underside of the base at the front biscuit slots also need to be cut for the plinth support, this will be glued later.

Next the positions of the shelves are marked out on the sides and vertical divisions and the biscuit slots are cut. The interior faces of all the panels can now be sanded and finished.

Two warnings, remember that veneers can be easily sanded through and mask off the biscuit slots to prevent them from being contaminated with finish. I opted for satin acid catalyst lacquer but other finishes could be used. Once the finish has cured the carcass is glued up making sure that the carcass is square. Remove any excess adhesive with a damp cloth before it has cured. Once the adhesive has set the clamps are removed and the plinth support piece can be prepared, biscuits slot cut and glued in position. As well as biscuits, use glue blocks to give some extra strength.

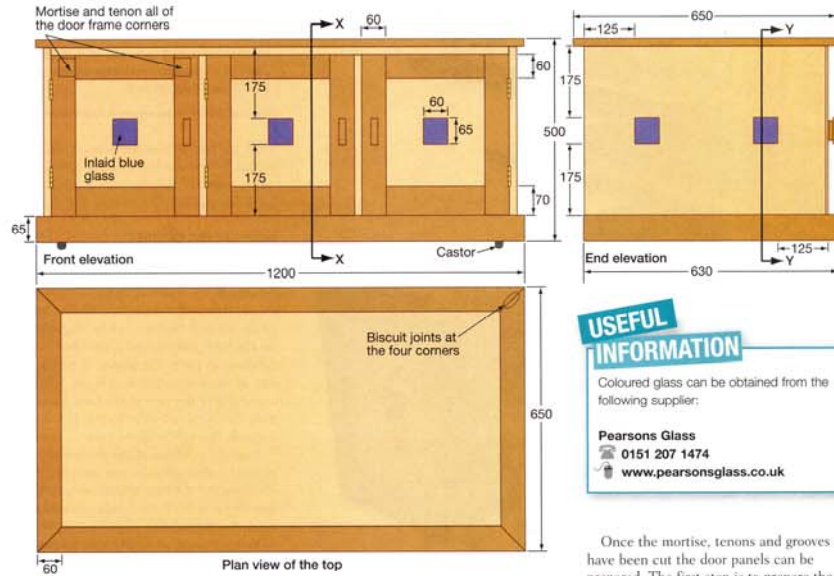
The 'T' shaped handles are made from cherry



The lipped components are carefully cut to length using a table saw. Be aware that when cross cutting veneered MDF there will be a tendency for the veneer to break out on the underside. Using a table saw with a scribing blade will prevent this, or if your saw doesn't have this feature, lay a scrap piece of MDF under your work then cut both boards to reduce the break out. Always use a sharp, fine blade. The more



**Figure 1 Glazed chest**  
All measurements in millimetres



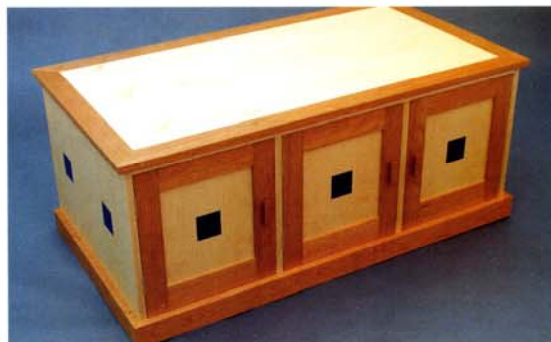
**USEFUL INFORMATION**  
Coloured glass can be obtained from the following supplier:  
**Pearsons Glass**  
0151 207 1474  
www.pearsonsglass.co.uk

Once the mortise, tenons and grooves have been cut the door panels can be prepared. The first step is to prepare the blue glass for inlaying. Your local stained glass window maker may be able to provide this for you. Ask him to get the pieces square and it's a good idea to cut a couple of spare pieces in case one breaks. I glued maple veneer to the underside of the glass so one would see wood grain rather than exposed MDF when glued in position. The veneer is glued in using epoxy resin. When dry, the surplus veneer is trimmed off and the edges of the glass and veneer sanded to make them straight and remove any surplus glue.

veneered board again making sure there are no gaps in the mitres. When the adhesive has cured the top is sanded.

**Make the door frames**

The door frames are made using traditional stopped mortise and tenon joinery. Use a router or table saw to cut a 12mm deep groove on the inside edges of the frames to take the veneered door panel. The joints should be snug fitting to ensure strength.



**TIP**

**MARTIN'S TIP NO.3**  
**How to sand veneer**

Veneers can be easily sanded through... mask off the biscuit slots to prevent them from being contaminated with finish and switch your belt sander to a low speed for more control.

When dry the front edges and outside of the sides can be cleaned up and sanded. The veneered MDF for the back can be cut to size, sanded and finished. This is fixed with 20mm screws.

**Cherry plinth and veneered top**

The cherry for the plinth, top lippings and door frames are planed up to the finished dimensions. The corner mitres on the plinth can be cut and so can the biscuit slots on both the plinth and carcass. The plinth can be carefully glued in position making sure there are no gaps in the mitres.

The veneered MDF for the top can be prepared and the mitres on the cherry lippings cut. Unlike the maple lippings these are not left over-size but should be the same thickness as the veneered board or a fraction of a millimetre thicker. These are biscuited and glued to the edges of the

**CHEST CUTTING LIST**

(All dimensions in millimetres)

Component	Qty (Sawn)	Qty (Finished)	Length (Sawn)	Length (Finished)	Width (Sawn)	Width (Finished)	Thickness (Sawn)	Thickness (Finished)	Material
Base	1	1	1350	1125	680	604	19	19	Maple veneered MDF
Sub Top	1	1	1350	1125	680	598	19	19	Maple veneered MDF
Top	1	1	1200	1080	610	530	19	19	Maple veneered MDF
Sides	2	2	600	481	650	598	19	19	Maple veneered MDF
Vertical Divisions	2	2	550	396	650	598	19	19	Maple veneered MDF
Shelves	3	3	500	362	650	578	19	19	Maple veneered MDF
Back	1	1	1350	1147	500	435	6	6	Maple veneered MDF
Door Panels	3	3	400	296	350	272	6	6	Maple veneered MDF
Side Lippings	2	4	1200	481	25	23	12	6	Maple
Vertical Division Lippings	2	4	1100	396	25	23	12	6	Maple
Shelf Lippings	11	11	1100	362	25	23	12	6	Maple
Top Lippings - Front & Back	2	2	1300	1200	75	60	25	19	Cherry
Top Lippings - Sides	1	2	750	650	75	60	25	19	Cherry
Plinth - Front	1	1	1300	1200	80	65	25	19	Cherry
Plinth - Sides	1	2	750	630	80	65	25	19	Cherry
Door Stiles	3	6	500	480	75	60	25	19	Cherry
Door Top Rails	1	3	450	332	75	60	25	19	Cherry
Door Bottom Rails	1	3	450	332	80	65	25	19	Cherry
Blue Stained Glass	7	7		65		60		4	Blue stained glass
Maple Veneer	1	7	560	80	80				Maple veneer

NOTES: Length is measured in the direction of grain

Number each piece of glass as they will most probably not be identical in size. Carefully mark out the positions of the recesses on the sides and door panels numbering each one. Place the corresponding numbered piece of glass in position and carefully scribe around it using a sharp scalpel or Stanley knife. Using a router set to the thickness of the glass and veneer, cut out recesses leaving the final 1mm to be removed from the edges with a chisel. The door panels can now be sanded and the door panels, carcass sides, plinth and front edges are finished. The glass inlay is glued in place, again using epoxy resin. Be careful not to apply too much pressure

as this might crack the glass. The doors can now be glued up. When the adhesive has cured the door frames are cleaned up and sanded. Next the doors can be fitted, I left about 1/2 - 2mm gap around the doors. Before hanging the doors, fix the top to the carcass by the carcass by means of round dowels and screws through the sub top. Cut recesses in both the edges of the doors and the carcass to take the 50mm hinges. Give the door frames a final sand and apply the finish. Next the door handles need to be made. Plane up the cherry, two rebates are cut to form a T-shape section; this is done using an inverted router with a fence. The

three handles are cut to length. Next the two ends of the central part of the handle are cut by 10mm on either end. The doors are ready to hang and you just need to fit door stops, ball catches and the handles.

**FINISHING**

The only thing left to do is apply the finish to the top, and fit the castors to the underside of the base. Now stand back and admire your craftsmanship and enjoy using your creation.

**Figure 2 Glazed chest**  
All measurements in millimetres

