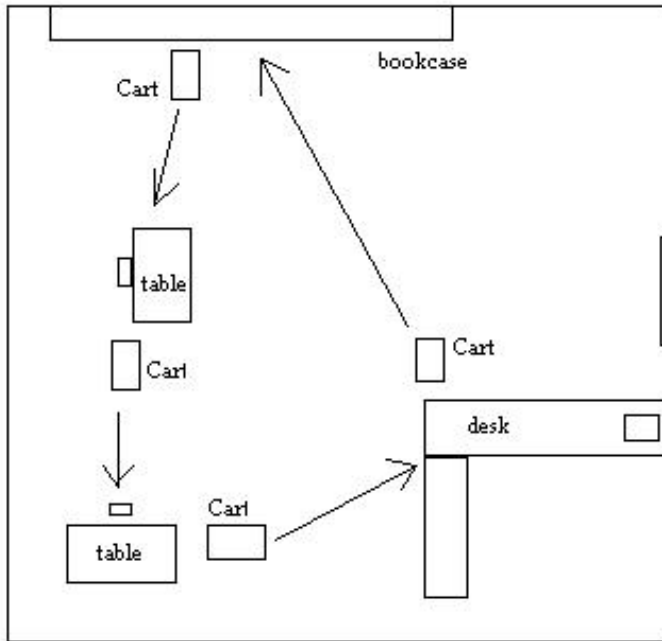


Nic Sievers
Virtual Model

My virtual model is a VRML rendition of my physical model of a library. Here is the plan view of my model:



Everything is pretty much the same as the physical model.

States = black furniture (tables, shelves, desks...)

Transitions = book carts

Attributes of states (or mapping-onto attributes) = posters/table cloths

In the virtual model you can walk around and see the different transitions as they occur. The transitions occur with the use of "transition carts." Each cart only moves in one direction from one object to another then the next cart will transition. The first cart starts at the return desk. The return desk is labeled with the elevator attribute of being completely stopped. The cart then transitions to the bookcase. The bookcase has the elevator attribute of the doors opening; this is clearly label by the poster in the middle. The next cart then transitions to the first table. The first table is the elevator attribute of people entering and exiting. Again this is labeled on the top of the table. The next cart then transitions to the second table. This table is labeled with the elevator attribute of the doors closing. The final transition cart then returns to the return desk.

Again I did not use all the states I had in my original model, just a few to demonstrate the mapping. However, with the rules given one can change the states and transitions to your desire, if say this virtual model was configurable (id. If this virtual

model could be displayed on a holodeck). The actual source and target states I used for mapping were:

<u>Elevator</u>		<u>Library</u>
-Elevator Stopped	→	Nothing done(return desk)
-Open doors	→	Reference a book (bookshelf)
-People enter/exit	→	Read a book (first table)
-Close doors	→	Return a book(second table)