

# 12

## Group Therapy

*A*s you found out in the chapter on Manipulating Text, grouping can be a useful tool for making perforations, and for making your life easier as well. The more you feel comfortable with grouping, the more you'll discover things you can do with it. This chapter will help you get on more intimate terms with the concept.

### ***The short (terse, actually) explanation***

All Typestry objects created using the Extruded Build Method are structured “hierarchically” — they have different levels. Each level represents a grouping of objects. Text you type in already has three levels of grouping by default: 1) text object, containing all the letters you typed in the Text dialog; 2) the individual components of the text object (the letters), containing faces and sides; 3) faces and sides, always the bottom level. The exception to this rule is when you type in more than one line of text in the Text dialog. This adds a fourth level just under

the text object level. Think of a level as a group. These groups appear in the Score window.

You can create a new level (group), by using the Group command, available under the Edit menu. This takes the selected object and puts it in a new group. For example, grouping letters creates a level between the text object level and the letter level.

You can use any of the Transform tools on any level but the bottommost — the faces and sides. (If you could move those separately you'd no longer have 3D characters, and we wouldn't like that, would we?) This means you could move one letter of one word (if you had made a “word level”), resize just that word, and rotate the text object containing the word. Faces and sides are locked together. You can also apply a different Look to any level. So you could make the text object plastic, change one word to marble, make one of the word's letters metal, and make that letter's sides checkerboard. 'Gad!

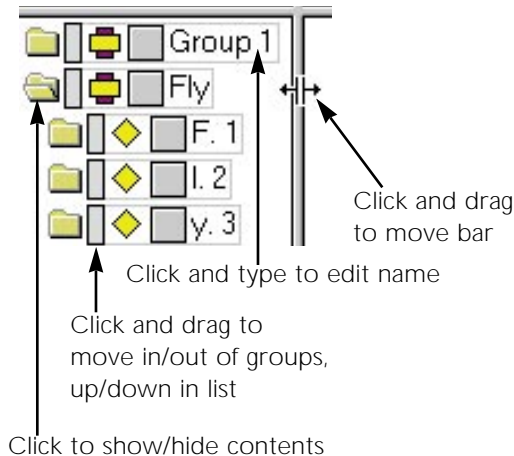
Double-clicking on an object allows you to move down the levels: each successive double-click moves you down a level.



## Using the “tree”

The left side of the Score window is the area in which you control grouping. It contains a hierarchical “tree” of all the objects in the scene and their elements. If you need more room to see the full names of items, you can click and drag the bar separating the tree from the rest of the window.

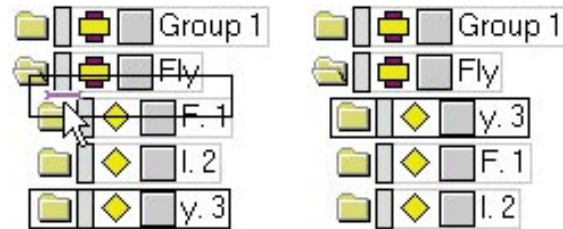
Using this tree is a little like using the File Manager's Tree Only View mode. There, you can open a directory by double clicking on it. In the Score window you can open a group by single-clicking on it. To



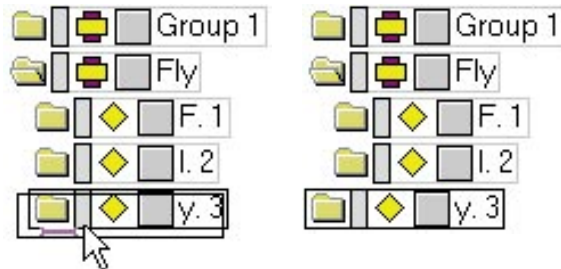
change an object's name, just select the current name and start typing.

But there is one thing you can do that you can't do in the File Manager. By dragging an item up or down you can change its position in the list of items. (Recall the importance of order when you're performing objects, as you learned in the *Manipulating Text* chapter.) A purple cursor appears, indicating where the item will end up when you release the mouse button. Let's look at a few examples. Let's say our tree starts out looking out like the one above.

To move the “y” to first place within its group:



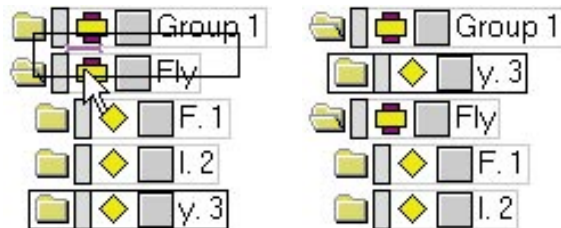
To move it out one level, and last in position:



To move it up one level, and above its current group:



To move it directly into the other group:



## ***The long explanation***

Now let's flesh things out a little. When you click on Build Object to get letters into Typestry, the program automatically groups objects into different levels, which you can see in the Score window. Faces and sides are grouped into letters, or "letter objects," and letters are grouped into a "text object." So there are always three levels to start out with. If you have more than one line of text, each line will be a group as well.

No doubt you're used to having directories within directories within directories on your machine. You can think of a grouping as a directory. A text object would be a directory with other directories (letters) in it. And like opening and closing directories you can open and close groups by clicking on their directory icons.

Each of the letter directories has two "files" in it (faces, and sides). The files are where the information lives: they are what actually describe the letters' surfaces. The directories are just a way of organizing the files. You can select both directories and files, but selecting a directory selects everything in the directory as well, just like on your computer.

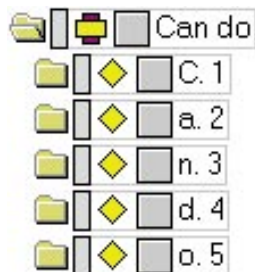
Once a text object is created, you can then ungroup letters or text objects, or you can add your own



groupings. Try this. Create a Typestry file with a text object that says "Can do:"

1. With the Text tool selected, click in the middle of the window to bring up the text dialog.
2. Select a font and type Can do.
3. Click on Build Object, select any bevel, and click on OK.

You should have a tree that looks like this:



Now let's group the five letters into two words:

1. If the Score window isn't showing, select Show Score from the Windows menu.
2. In the Score window, click on the "Can do" object's triangle. You should see all the letters in the text object.

3. Select the Move tool from the tool palette, and in the project window, click on the text object to select it.

4. Now double-click on the letter C, or click on the letter in the Score window. This will select just that letter and put us at the "letter level." Now we can group letters.

5. Select Group from the Edit menu. This creates a new group that appears at the letter level in the Score window. Right now the group includes only the C.

6. Type "Can" in the Group Name box.

7. Add the "a" to the group by dragging its gray handle into the Can directory. Drag it so the purple cursor is directly below the "C."

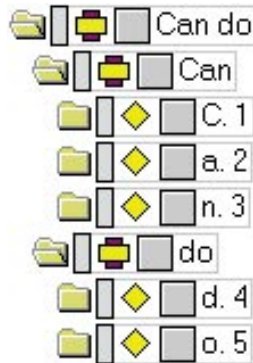
8. Add the "n" to the group similarly.

9. Now select the "d."

10. Select Group and name the group "do." This will put the "d" into the group.

11. Add the "o" to the "do" group.

Now your tree should look like this:



Where the text object had two levels below it before (letters, and faces and sides), it now has three levels below (the faces and sides aren't showing): two groups, each of which has groups of its own (letters). We've added a new level to the structure. Using the directory analogy, we put the contents of the *Can do* directory into two new directories, *Can* and *do*.

The power of this organizational scheme is that it allows you to do different things at different levels.

1. With the Scale tool selected, click on the text object: you've selected the highest level. Click and drag to make the whole object bigger — the top level and everything in it.

2. Double-click on "Can": you've selected a word, which is at the next lower level. Get the Move tool and drag the word somewhere else.

3. Double-click on the "a": you've selected the letter. Get the Rotate tool and rotate the letter.

4. Double-click on the "a" again: you've selected the letter's faces, which is the lowest level. These are "locked," and can't be manipulated (but they can have a separate Look).

5. Double-click on the "a" once more: you've popped back up to the highest level.

6. Get the Rotate tool and rotate the whole group.

Just think of the implications of this for animation! (And just read about it in the chapter on *Animation*).

Remember, anything that you do to an item in the tree is done to all of the items inside it. This includes applying Looks. If you apply a Look to the word "Can" then it automatically applies to the letters "C," "a" and "n" both to their faces and their sides.

- Unless an item has its own Look, it will have the Look of the group that contains it.

Next, if you change the Look of the letter "C," then it will get the new Look but the letter "a" and "n"



will be unaffected. They will still have the Look given to "Can."

Thus you can override any Look that was applied higher up the tree. If you want to get rid of the Look that you just gave "C," then click on the Detach Look button and it will "inherit" its Look from the next higher box in the tree.

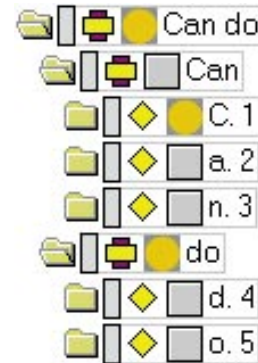
Let's look at the "Can do" example to make this clearer.

Making the "Can do" text object yellow will make all the letters yellow because no group or letters below it have an assigned Look.

Changing the "C" Look to red will make the "Can do" have a red "C" while the rest of the letters will remain yellow.

Changing the "do" group to blue would change that whole word to blue.

The cumulative effect would be something like this:



In this particular example the advantage is obviously small, since there are so few letters, but you can see

that the longer the words, the more time you might save applying Looks.

So, when you think you might want your text object organized by whole words (and/or by smaller groups of letters) be sure to use Group to organize the letters!

### **Copying Looks from one object to another**

If you'd like to avoid having to use the Browser to apply the same Look to a number of objects, there's a solution. To do this, in the Score window find the object whose Look you want to copy. Just click and drag the little Look image next to the object name to the same place on another object in the Score window. This copies the Look to the object.

### **"Inheriting" a Look**

If you've used different Looks at different levels, you can use the Detach Look button in the Looks window to "unassign" the Look of the selected level. This means that any files in the selected directory will get their Look from the next higher directory that has a Look applied — it will "inherit" the Look of the level above it. In the example above, selecting the red "C" and clicking on Detach Look would change the "C" to yellow, since that's the color

assigned to the next higher directory that has a Look.

### **Applications**

This hierarchical scheme allows you to create some interesting effects. Since you can select a text object as a single object or select components of it as separate objects, you can use this to good advantage.

- Applying a Look to a word as a single entity makes the word look like it was made from a single piece of the material. Applying it to each letter individually makes each letter look like it was made out of its own piece.



- Similarly, in animations you can have an object move "through" a Look. If a group has a wood Look applied to it and an object within the group moves, the object will seem to move through the wood.



- When you use the Difference perforation you can create objects with holes whose sides have a Look that's different from that of the rest of the object. Just make the characters that are being cut out have their own Look.

