A Tutorial for WE 1.0 for Use with Experimental Studies

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A TextLab Report

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Preface

This tutorial was written to teach people participating in an experiment on writing how to use the Writing Environment. Consequently, it is meant to be a theory-free tutorial and is not intended to teach the Strategic Method for Writing. It is also not intended to explain all of the possible functions available in the Writing Environment. Rather, it should allow the user who has no experience with WE to learn the functions necessary to write a document. For a more detailed explanation of functions, see the WE 1.0 User's Manual, Tech report TR88-036.

Note: To complete sections 5.2 through 9. of this tutorial, you will need the file Japan-mkt.ws.

Tutorial

1. Introduction

The Writing Environment, WE for short, is divided into four modes, or working areas:
Network Mode, Tree Mode, Edit Mode and Text Mode. Each mode is represented as a
rectangle, or window, on the screen. Network Mode allows you to visually explore your
ideas in an unstructured environment; Tree Mode helps you to organize them by providing
a structured environment; Edit Mode lets you input and edit small blocks of text; and
Text Mode allows you to see and work with the document as a whole.

Although the tutorial which follows necessarily discusses these modes and the functions within them in a certain order, do not feel limited to that sequence. The modes and functions of the Writing Environment are available to help you write and should be used in whatever sequence you like.

1.1. Menus

There are several different kinds of menus associated with the Writing Environment. At the top of the screen, you will see a Control Panel bar which extends horizontally across the top of the screen. The Control Panel contains commands which affect the system as a whole rather than a specific mode. You use this panel to save your document, open a new document, etc. You may also notice a menu bar at the top of the window for each mode. From this bar, you can activate a set of pull-down menus which are common to all the modes.

Each mode also has its own unique set of menus.

2. Network Mode

Network Mode can be used to visually represent your ideas. In this mode, you can represent concepts as nodes, group concepts into clusters, draw associations between related pairs of concepts, and link concepts into a network. To accomplish these functions, Network Mode offers three different menus: a general background menu, a Node menu, and a Link menu, as well as the Menu Bar at the top of the Mode window. This Menu Bar is common to all Modes.

Let's practice with these menus and functions. First, move the mouse and notice that the mouse moves an arrow-shaped cursor on the screen. Move the cursor into the window for Network Mode, the large rectangle in the top left quarter of the screen.

2.1. Create Node

Following is a list of topics that can be entered into Network Mode.

bird cat canary mammal tiger ant eagle

These topics are entered into WE in the form of nodes. A node is an individual idea or block of information. To create a node, press and hold down the mouse button

anywhere inside the top left quarter of the screen which is the Network Mode. All three of the mouse buttons are interchangeable in Network and Tree Modes, so you may press any one of them. As you move the mouse downward on the menu, different selections will be highlighted. Select the Create Node option in the pop-up menu by releasing the mouse button when Create Node is highlighted.

The system will ask for the name of the new node by displaying an input box right beside the cursor. In response, type bird, followed by a carriage return. If you make a mistake, use backspace to correct it, or you can use the Delete key to erase the entire name and start over again before you press carriage return.

Now create a node for cat.

Create a node for canary, but before typing canary, move the cursor outside of the box. You will notice that the box is flashing. This is to remind you that you have not finished creating the node. Any characters you type will be recorded inside the box, but they will not be visible until you return the cursor into the box.

Move the cursor back inside the box and type canary.

Create nodes for the rest of the items on the list. It does not matter where you put these nodes. Feel free to add some of your own ideas as nodes.

2.1.1. Edit Node Name

You may change your mind on what you want to call a node. WE provides many ways to deal with changing your mind. For example, suppose you want to change cat to lion. To change the name from cat to lion, move the cursor inside that node and invoke the node menu by pressing and holding down the mouse button. Select the Edit Name command. A small input box appears just as it did when you created the node. The only difference is that the node name also appears in the box so that you can edit it. Use the keyboard to enter the new name, lion, right over the old name, cat. Press the carriage return.

2.2. Link Nodes

You may have noticed the Link option, from the pop-up Node menu. The Link function allows you to connect nodes. Suppose you want to indicate a relationship between the nodes bird and eagle. To draw a link from bird to eagle, invoke the Node Menu by moving the cursor into the bird node and pressing and holding down the mouse button. Select the Link command by releasing the mouse button when Link is highlighted. You will then see a "rubber band" which connects the node and the cursor. Now, move the cursor inside the eagle node. Then click the mouse button. This will produce an associative link between the two, as the "rubber band" changes to a solid line with an arrow in the middle.

Now draw a link from canary to bird. First, move the cursor into the canary node. Invoke the Node Menu and select the Link option. To link canary and bird, move the cursor inside the bird node and click the mouse.

Use the Link command to connect some of the nodes you created.

To delete a link, move the cursor onto the arrow portion of the link. The arrow should become a small box. When you see the box, press and hold down the mouse button. Select the option Delete Link from the pop-up menu that appears. Do not delete the links connecting bird to eagle or canary to bird.

2.3. Move Node

After you have created a node, you may decide you'd like to move it to someplace else in the window. WE provides a way to move nodes around on the the screen. Let's move the mammal node to a new location. Point the cursor at the mammal node and press the mouse button. Select the menu item Move. The cursor should now look like a small box which represents the node you are moving. Move the box to the new location and click the mouse button. The mammal node will reappear at the new location.

2.4. Delete Node

In looking over your list of topics, you may decide that you don't want to include one. In this example, suppose you decide that you don't want to include *insects* in your discussion of animals. To delete the node for ant, move the cursor to the ant node, invoke the node menu, and select Delete Node.

Practice the functions you just learned.

3. Tree Mode

Tree Mode enables you to organize your ideas into an outline which takes the shape of a tree. In this mode, your nodes correspond to the topics in an outline. You can create new ideas or transfer ideas back and forth between Network and Tree Modes. Furthermore, you can use Tree Mode to change the structure of your document: rearranging parts of the tree automatically rearranges the corresponding parts of the document.

3.1. Create Tree

Let's go to the Tree Mode to generate a tree structure of the ideas in Network Mode. Move the cursor into the Tree Mode. Push and hold down the mouse button. Notice the pop-up menu that appears. Select the Create Tree command. The system will prompt you for the name of the root. Enter the name Animals. The root node of the tree is placed at the far left of the screen and the tree extends outwards from it to the right.

3.2. Adding Nodes to the Tree

You may now decide that you want to include the topic fish under Animals. You can do this by putting a child node under the root node, Animals, to represent the topic fish. At this point, you're probably wondering what a child node and a root node are. Imagine a family tree with only one original ancestor. The original ancestor is the root

node. Branching off from the root node will be child nodes. The root node is their parent.

(It's a single sex society.) Each of these child nodes can have children of its own branching off from it. All of its children are siblings to one another.

Tree Mode is different from Network Mode, since all nodes (except the root) are created from inside an existing node. To create a child node for Animals, position the cursor inside the Animals node, invoke the node menu, and select the Add Node:Child command. The system will prompt you for the name of the child node. Type fish and hit return.

Nodes can also be created from siblings, and children can create their own parents. Now create a sibling for fish. You can do this by invoking the Node Menu from within fish and selecting the Add Node: Below option. Type reptile and press return. You have just added reptile as a sibling to fish.

As you have probably noticed, there are four Add Node options in the node menu. The Add Node:Above command is similar to the Add Node:Below command except that it produces a new sibling node above the original node. The Add Node:Child creates a new node as the new bottom child of the selected node. You could have added reptile as a child to Animals instead of as a sibling to fish.

Finally, the Add Node:Parent option creates a new parent node for the siblings. To create a new parent node, you specify which siblings will be attached to the parent by indicating them in a range from top sibling to bottom sibling. Select Add Node:Parent from within the fish node. Now, move the cursor into the reptile node and click. The system will prompt you for the name of the parent. Type vertebrate as the name for the new parent, and press return. Notice that vertebrate has apppeared as the new parent of fish and reptile.

3.3. Copy Node from Network

WE allows you to copy ideas in the form of nodes from the Network Mode into Tree Mode. Suppose you decide that mammal should be part of the tree. You can transfer a copy of it from Network Mode to Tree Mode.

First, move the cursor into the node, mammal, in Network Mode. Invoke the node menu by pressing and holding down the mouse button from within the mammal node. Select the Copy Node command. WE has now copied the node into an invisible buffer.

Move the cursor back into the Tree Mode. Press and hold down the mouse button in the background to call up the Background Menu. Select the Paste Node option. A special box cursor will replace the original cursor. Move the box cursor inside the vertebrate node. The cursor will change into a small arrow in the box pointing upwards, downwards, or diagonally to the right depending on the position of the cursor within the node.

Move the cursor around to see the arrow change. The upward arrow indicates that the incoming node will be drawn immediately above this node as a sibling, and the downward arrow indicates it will be placed below the node, also as a sibling. If the arrow points diagonally to the right, the incoming node will be attached to this node as a child. Click

the mouse button when the indicated location of the incoming node corresponds to your intended destination for it. In this example, click when the small arrow points diagonally to the right. The node mammal should appear beneath the node reptile.

Now repeat this process to copy the node lion from Network Mode into Tree Mode as a child of mammal. Select the Copy Node command from within the lion node in Network Mode. Move back to Tree Mode and select the Paste Node option from the Background Menu. Add lion as a child to mammal by clicking the mouse when the arrow points diagonally to the right.

3.4. Copy Tree from Network

You can also copy an entire structure. For example, copy the bird node and all the ideas linked to bird in the Network Mode. To copy a structure rather than a single node, go to the Network Mode and select the Copy Tree command from the Node Menu of the bird node.

Go back to Tree Mode and select the Paste Tree command from the Background Menu. This time you have two ways to "paste": one is to go to the vertebrate node and click the button when the small arrow points to the right; the other is to click when the small arrow in the mammal node points down. Either of these actions produces the same result: Bird as a child of vertebrate and a sibling to mammal.

Notice that only bird and eagle were copied from Network Mode. This is because the Copy Tree command is only able to copy tree structures. In Network Mode, it is possible to have a group of ideas that is not linked in a tree structure, as shown in Figure 1. The Writing Environment will transform this structure into the best tree it can by ignoring nodes that do not fit into the tree structure.

To illustrate how this works, skip ahead to 3.5 Delete Node and Subtree, and then return to this section.

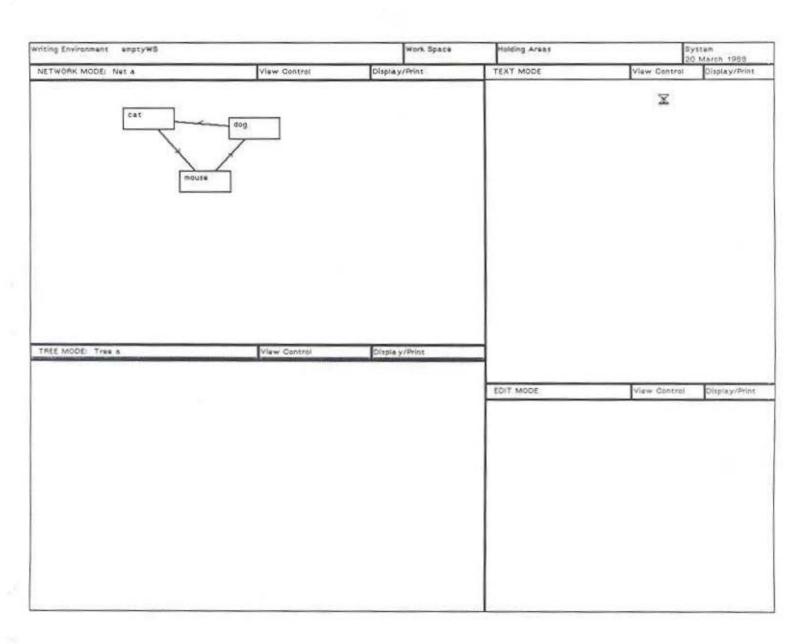
Now that you've deleted the bird and eagle nodes, you are ready to copy the bird structure from a different starting point, or root. Move the cursor into the canary node in Network Mode, and select the option Copy Tree from the Node Menu. Now move the cursor back into Tree Mode and select Paste Tree from the Background Menu. Move the cursor into the mammal node and click when the arrow is pointing down. Notice that this time all three nodes have been copied with canary being the root of the idea cluster.

Practice with the functions of Tree Mode. Add new ideas to the tree, copy ideas from Network Mode, and delete ideas. Save the bird node because you will need it later.

3.5. Delete Node and Subtree

As you inspect the tree, you may decide that one of the nodes or subtrees doesn't fit. You can delete it in Tree Mode just as you did in Network Mode. Suppose you don't want to include fish after all. To delete fish, move the cursor into the fish node and select the Delete option from the pop-up menu.

Figure 1



You can also delete a subtree by selecting the corresponding command in a new menu, called the Subtree Menu. This will remove a node and its progeny from the tree. If the node appears in both Network Mode and Tree Mode (as it would if you copied and pasted it), deleting or changing it in one mode does not delete or change it in the other.

To delete the subtree of bird and eagle, move the cursor over the link between the two nodes. The link should be highlighted in gray. Press and hold down the mouse to invoke the Subtree Menu and select the option **Delete Subtree**.

Now return to 3.4.

4. Edit Mode

At some point, you will want to write text associated with a node. In fact, that's the only way you can write text. Edit Mode enables you to write text that will be associated with a given node.

4.1. Accessing Edit Mode

Edit Mode must be accessed from the Node Menu in Network or Tree Modes. Let's access it from Tree Mode. Move the cursor into the node named bird. Call up the Node Menu by pressing the mouse button and select the option Edit Text. In a moment, the cursor should reappear in the Menu Panel of Edit Mode which is in the lower right-hand corner of the screen.

Move the cursor inside of Edit Mode. Two changes should take place on the screen:

(1) A gray bar should appear on the left-hand side of Edit Mode. This is the Scroll Bar. It will be explained in section 6. (2) The words "-new text-" should also appear in the window. This indicates that no text has been associated with this node yet. You may want to make it a habit to delete "-new text-" as the first thing you do in Edit Mode. You will be shown how to delete text in section 4.2.5.

4.2. Edit Features

Edit Mode has several features which facilitate editing text. These features can be used throughout WE whenever you are editing text. For example, you can use them to Edit Name of a node in Network or Tree Modes. When you are editing, there is a distinction between the left and middle mouse buttons. The left mouse button will be used to relocate the cursor to another position on the screen. The middle mouse button allows you to perform operations on the text such as cutting and pasting.

4.2.1. Insertion Point

Now look inside Edit Mode. Click the mouse and notice the small caret (an inverted 'v') that appears in the upper left corner of the mode window. This indicates where the input from the keyboard will go. Type the following sentences.

Birds comprise the class Aves. All birds have feathers, although they are extremely modified on some birds, like penguins.

Now move the cursor to the beginning of the second sentence and click the left mouse button. The caret should appear at that cursor location.

Pointing to a place in the text and clicking the left mouse button will insert the caret at that position.

You can use this feature when you want to insert text. Insert the following sentence at this point in the text.

Next to mammals, birds are the most important group of land-living vertebrates.

4.2.2. Text Selection

The left mouse button can also be used to select text. Once selected, text can then be deleted, moved, copied or replaced. To select the second sentence of your paragraph, move the cursor to the first word, 'Next'. Press and hold the left mouse button. While holding the button down, move the cursor to the other end of the sentence and release the button. The selected text will be highlighted. The passage will remain highlighted until you perform another operation.

4.2.3. Moving Text

To move selected text, press and hold down the middle mouse button to call up the Edit Menu. Choose the option Cut. You should no longer see the second sentence on the screen. It has been copied into an invisible buffer where it can be retrieved by the Paste or Undo commands. To reposition the selected text after the last sentence, move the cursor to the end of the last sentence. Click the left mouse button. Notice that the caret reappears here. Press and hold down the middle button and choose the Paste command to complete the move. The text should reappear after the last sentence. Click the left mouse button to remove the highlighting.

4.2.4. Copying Text

Copying text is done in the same manner as moving text, but does not delete the original text. Let's make a copy of the last sentence and put it at the end of the first sentence. Select the last sentence just as you did above. Once the text is highlighted on the screen, call up the Edit Menu by pressing and holding down the middle mouse button. This time, choose the option Copy from the menu that appears.

Now move the cursor to the beginning of the second sentence and click the left mouse button. Press and hold down the middle button and choose Paste, as you did when you moved the sentence.

4.2.5. Deleting and Replacing Text

You can remove highlighted text from your document in two ways: by Deleting it or Replacing it. To delete the last sentence, first select it. Now press the **Delete** key. To Replace Text, simply type over the highlighted text.

5. Global WE Features

At this point, you're going to open a different document to illustrate some of the features of Edit and Text Modes.

5.1. Saving Your Document

Before opening a new document, you should save the one you're working on. Go to the menu bar at the very top of the screen. Point the cursor at the Work Space bar and press and hold down the mouse button. From the menu that appears, select the Save WS command. The system will then prompt you for a name. If you were working on a document that had been saved before, the name of the workspace would be displayed in the input area. Since you are working on a new document, the name dispayed in the input box is "typeAName". Type Animals right over this name and hit return.

WARNING: To complete this tutorial, you will need the file Japan-mkt.ws. See the experiment monitor for assistance.

5.2. Change Work Space

To open a different file, you once again point the cursor at the Work Space bar and press the mouse button. This time, select the Change WS option from the pop-up menu. After a pause, a list of workspaces from which to choose will be presented. Click on the selection 'Japan-mkt'.

6. More Edit Mode Features

Once the new document has appeared on the screen, move the cursor into Tree Mode. Now move the cursor into the node *Many American firms do well*. Invoke the Node Menu and select Edit Text. You should see text appearing in Edit Mode.

6.1. Scrolling

Notice that the text runs off the screen. There is a white column along the left side of Edit Mode which enables you to move/scroll through the text. The length of this white column represents all the text connected to this node. Inside the area is a gray bar, called the Scroll Bar. This gray Scroll Bar represents the text you can see. The position of the gray Scroll Bar in the white column represents the position of the text you can see in the window relative to the whole available text. For example, if the Scroll Bar begins at the top of the column, then the window is at the beginning of the available text. You will be

practicing with this scroll bar, so don't worry if you don't understand it right away. You should get the hang of it with practice.

6.2. Scrolling through Edit Mode

You can change the portion of text displayed by scrolling the block of text relative to the window. (To visualize this, imagine the text as being written on a long sheet of white paper. On top of the paper is a sheet of black construction paper with a window cut in it. You can pull the white sheet of paper up and down to allow different portions of the text to be visible through the window). This is done in one of three ways:

To view the next available text, notice the location of the third paragraph on the screen. The paragraph begins, "American high-technology. . .". Now move the cursor into the scroll column, in the right third of the column but outside of the gray scroll bar. See Figure 2. Put the cursor on the top right side of the column. The cursor shape becomes an up arrow. Click the mouse button to scroll the text forward. Notice the new location of the third paragraph. It should now be closer to the top of the Edit Mode window. If it is not, try again.

To view the preceding text, move the cursor into the scroll column, in the left third of the column but outside of the scroll bar. The cursor shape becomes a down arrow. Click the left mouse button. This scrolls the text backward so that the previous text is now visible. Once again, note the location of the "American high-technology. . ." paragraph.

You can also use the scroll bar to skip up and down through the text and to scroll through the text to find the exact section of the text you want. This feature is especially useful when you are looking for a particular portion of the text but are uncertain of its exact location. To practice with this feature, move the cursor into the scroll column, in the middle third of the column and either below or above the gray scroll bar. The cursor shape becomes a right arrow. Press the mouse button and hold it down. The gray bar moves to the cursor location and then tracks the cursor until the left mouse button is released. Move your mouse forward and backward without releasing the mouse button, and watch the text moving on the screen.

While the left button remains pressed, a lighter gray image is left in the scroll column to indicate the previous position of the scroll bar. This action allows you to scroll through the text to find the desired location. Release the mouse button when the paragraph "American high-technology. . ." is at the top of the screen.

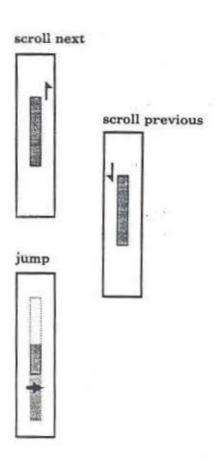
The right arrow also enables you to jump forward or backward through the text. To jump forward, position the arrow below the gray scroll bar. To jump back, place it above the gray scroll bar.

Practice with these features until you feel comfortable, and be sure to ask for assistance if you want help.

7. Text Mode

Now that you've become familiar with scrolling/moving through edit mode, let's use

Figure 2



Text Mode to learn a new way to move through your document. Text Mode enables you to manipulate the document as a whole. In this mode, you can scroll through the different nodes of your document, as well as scrolling within an individual node. Text Mode is accessed from the Display/Print Menu of Network and Tree Modes. When you access it from Network Mode, the order of nodes is arbitrary. Tree Mode, on the other hand, sequences the nodes according to the structure of the tree.

7.1. Accessing Text Mode

To access Text Mode, move your cursor into Tree Mode. The cursor will appear briefly as a pen when you move it out of Edit Mode. This just indicates that WE is saving the work you did in Edit Mode. Invoke the Display/Print menu at the top of Tree Mode by moving the cursor into the Display/Print bar and pressing and holding down the mouse button. From the options that appear, select the Show in text mode option.

You should see alternating areas of node titles and text appearing in the upper right corner of the screen. The first node is empty of text because it was just used as the title for this document. The text areas of this mode have the same functions as Edit Mode. The complete text associated with a node may not fit in the allotted space. Consequently, each section has its own small scroll bar to allow you to scroll through the text for that node. This scroll bar is just the same as the one you learned to use in Edit Mode.

7.2. More Scroll Bar

Text Mode provides two kinds of scroll bars to enable you to move around in the document. One scroll bar is exactly like the one you saw in Edit Mode. This scroll bar is activated from the text section within a node.

Move the cursor into the text section of the node called 'US blames Japan for deficit'. Notice the small scroll bar that appears to the left of this node. Move the cursor into this scroll bar and practice the functions you learned about scroll bars in Edit Mode. Refer to sections 6.1 and 6.2 to refresh your memory.

The other kind of scroll bar is used to move through the document as a whole, between nodes. To activate this scroll bar, move the cursor into any one of the title bars (the narrow bars with the title of the nodes inside them). From the title bar, slowly move the cursor outside and just to the left of Text Mode. A long scroll bar encompassing the entire length of Text Mode should be visible. If it isn't, try again. Be careful not to move the cursor more than 1/2 an inch outside of Text Mode, or the scroll bar will disappear.

This scroll bar differs from the Edit Scroll Bar in several ways. First, it scrolls between nodes instead of within them. Second, there are no up and down arrows, only a right arrow for jumping through your document. And finally, you cannot move through the document the way you did in Edit to find the exact location you desire. You must jump through the nodes in Text Mode. Despite the fewer features, this scroll bar is useful for inspecting the structure of your document. Let's become familiar with it by moving through the "Japanese Trade Market document". Note the position of each of the nodes in Text Mode. Now jump forward through the document by positioning the right arrow below the gray bar and releasing the mouse button. Look at the new location of the nodes. Now try jumping back through the document by placing the right arrow above the gray bar and releasing the mouse button.

8. Switch Size

As your document grows, you may want to expand the size of a mode window. The option Switch Size from the View Control bar of any mode enables you to do this.

Move the cursor to the View Control bar in any mode and activate the menu by holding down the mouse button. Select the Switch Size option from the menu. This switches the window to one of two default sizes depending on the current size of the window.

9. Making Changes to Your Document

While writing a document, sometimes you want to make global changes: moving an entire section from one position to another or adding a section. You learned how to add sections in 3.2 Adding Nodes to the Tree. Now you'll learn how to use Tree Mode to move sections of the document around.

Move the cursor into Tree Mode. Now, switch the size of Tree Mode (as described in section 8). Suppose you decide that it would be more appropriate to move the section on "Japanese Partners" to before "Right Outlet for Product". Move the cursor into the node entitled "Japanese Partners", and activate the Node Menu. Select the option Move Node. Now position the cursor inside the node "Right Outlet for Product" and click when the arrow is pointing upward. The node "Japanese Partners" should reappear above the "Right Outlet for Product" node.

You can also relocate an entire section of the tree. First, examine the sequence of the nodes in Text Mode. Note how they follow the structure of the tree. To move the subtree attached to the node "Myths Persist", position the cursor on the link between "Myths Persist" and its children. The links should be highlighted. You can now call up the Subtree Menu you saw earlier by pressing and holding down the mouse button. Select the option Move Subtree. A box will appear, just as it did when you moved a single node. Move this box into the node "US blames Japan" and click the mouse when the arrow points up. This will reposition the entire subtree at the beginning of the document. Select the Show in text mode option from the Display/Print Menu and examine the new structure in Text Mode.

Another kind of change you may want to make is to move text from one node to another node. You can do this in Text Mode using the edit features Cut and Paste you learned in Edit Mode.

Move the mouse into the node "Myths Persist" in Text Mode. Use the left mouse button to select the first sentence, starting "Many U.S. executives...". Once this sentence is selected, use the middle mouse button to invoke the Edit Menu. Select the option Cut. Now move to the node "Distribution System" and select the option Paste from the Edit Menu. The sentence beginning "Many U.S. executives. . ." should appear as the new first sentence of this node.

You may decide at this point that you have left some ideas out of your tree. For example, you might want to add a section on "Japanese business etiquette" above the section on "Use Japanese partners". To do so, move the mouse into the node "Use Japanese partners". Invoke the node menu by pressing and holding down the mouse button. Select the option Add Node: Above from the pop-up menu. The system will prompt you for the name of the new node. Type Japanese business etiquette.

Practice using the Writing Environment until you feel comfortable with it.

10. Printing Your Document

At some point in the writing process, you may want to print out a copy of your document. To do this, point the cursor at the System Menu from the Control Bar at the top of the screen. Invoke the System Menu by pressing and holding down the mouse button. Select Printing Options. Press and hold down the mouse again to invoke the Printing Options Menu and select autosend. Now move the cursor into Tree Mode. Invoke the Display/Print Menu and select the option Send to line printer. This sequence of actions sends a copy of your document to the line printer.

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