

# Demo Disk Instructions

## General

The disk contains demonstration versions of FreeFlow™, FastTask™, and SmartChart™, along with a HyperCard stack containing the PowerTools™ Guided Tour, and a set of data files which present the design of a bank automatic teller system. The programs may be invoked from the HyperCard stack by clicking on the appropriate icon on the card representing that program. When they are invoked from HyperCard, they will automatically open the relevant data files for the ATM example. The following instructions should provide all the guidance needed to explore the capability of each tool. If you do not have HyperCard, the individual demo programs may be invoked normally from Finder.

## FreeFlow™ (version 2.0)

After invoking FreeFlow™ from HyperCard, and clicking the mouse in the copyright notice dialog box which appears, the context diagram for the ATM example will appear. Successive child diagrams may be opened by double-clicking the mouse within a bubble. Minispecs exist for all primitive processes, and may be opened via shift-click on a bubble, or by selecting a bubble and pulling down "Show Minispec" from the MS menu. To experiment with the DFD graphics editor, continue opening child processes until an empty diagram comes up. The graphics editor itself works much like MacDraw. Note that dictionary entries are created only upon saving a diagram (not possible with the demo version), and that no more than 10 windows may be open at a time.

The data dictionary may be accessed by selecting "Edit Dictionary" from the Dictionary menu, or definitions may be added by double-clicking on the name of a data flow. There is a built-in parser which supports the BNF-like syntax specified in DeMarco's Structured Analysis and System Specification; syntax is checked as the definitions are added. Consistency checks are invoked from the report menu.

FreeFlow™ supports real-time extensions as proposed by Hatley and Pirbhai in their book Strategies for Real-Time System Specification. These real-time extensions include control-flows (represented by dashed lines), and the control bar symbol. Diagrams may be viewed and edited as data-only, control-only, or both simultaneously by choosing the appropriate item from the Diagram menu. When in view-both mode, the bottom three icons on the palette may be toggled between various data and control symbols by double-clicking the mouse on the appropriate symbol.

## SmartChart™

The first 2 levels of the structure chart appear in the chart window - more levels may be viewed via the "Reformat Tree" dialog (select 3 levels to see all the minispecs which were imported from FreeFlow™). Move down the hierarchy by "shift-clicking" on the desired node. Use "go to top" or control-T to return to the top of the tree. The chart may now be used to browse the PDL file by double-clicking on any box. Use the Language and Template menus to enter templates in the language of your choice; use the ENTER key to move between placeholders. Regular expression searching conforms to the standard UNIX syntax.

## FastTask™

## States

To draw a state box: move the cursor to where the box should start, press the mouse button, move the mouse, and release the mouse button. States whose dimensions are less than 20 pixels high or wide will be deleted.

To move a state box to a new location: move the cursor to the edge of the box (or inside the box), press the mouse button, move the mouse, and release the mouse button. The transitions will remain attached to the states.

To enter or change a state name: move the cursor inside the state box, click the mouse button, and type the new name.

To select a state box: move the cursor to the edge of the box and click the mouse button. Additional objects may be added to the selection by holding down the shift key and repeating these steps. States may be removed from the selection by clicking on them a second time.

To resize a state box, first select the state, then move the cursor to the corner of the box to be stretched. Press the mouse button, drag the mouse until the box has the desired dimensions, and release the mouse button.

## Transitions

To draw a transition: move the cursor to where the transition should begin, double-click the mouse button, move the mouse, and click the mouse to create new segments. If the transition ends on a state, then just click on the edge of the box, otherwise double-click the mouse button. To correct errors, use the Delete (Backspace) key.

To select a transition: move the cursor to the edge of the transition and click the mouse button. Additional objects may be added to the selection by holding down the shift key and repeating these steps. Transitions may be removed from the selection by clicking on them a second time.

To resize a transition, first select the transition, then move the cursor to the vertex to be moved. Press the mouse button, drag the mouse until the vertex is in the desired position, and release the mouse button. If the vertex is not an endpoint of the transition, then the transition will remain attached to the states.

To add segments to a transition, first select the transition, then move the cursor to the vertex where the new segments should begin. Hold down the Option key, press the mouse button, drag the mouse until the segments are in the desired position, and release the mouse button.

To detach a transition from a state, select the transition and move the endpoint away from the state to which it is attached.

To attach an "offpage" transition to state, select the transition and move an endpoint into a state. Warning: moving a state on top of a transition's endpoint will not attach the transition to the state.

To change the event/action names on a transition: move the cursor to the event/action label, double-click the mouse, and enter new names.

To move the event/action label: move the cursor to the label, press the mouse button, move the mouse to the new location, and release the mouse button.

## General

To select all the states and transitions within a rectangle, hold down the Option key, move the cursor to where the rectangle should begin, press the mouse button, move the mouse to the opposite corner of the desired rectangle, and release the mouse button.

To deselect all selected states and transitions: move the cursor away from all states and transitions, and click the mouse button.

To delete any state or transition: select the object, and press the Delete (Backspace) key or select "Clear" from the Edit menu. States that still have transitions may not be deleted.