SmallStar 84 D. Halbert
SmallStar 84  D. Halbert

Program to move named document "Treaty"

User selects "Treaty" in the program and presses "Properties" key to display...

Document data description sheet for "Treaty"

Editing data descriptions is used as a substitute for inferencing from multiple examples
Editing programs is used to create flow of control.

Adding set iteration loop by selecting line(s) and choosing “Repeat” from popup menu.

Create program to move all files by copying “Negotiations any” to “everything matching” descriptor.

Mailing form program with unconditional conversion to first class.
SmallStar 84 D. Halbert

Property sheet for conditional testing weight

Mailing form program with conditional template

SmallStar 84 D. Halbert

Mailing form program with conversion to first class conditional on weight
Peridot B. Myers 1987

- Programming by Example for Real-time Interface Design Obviating Typing
- Creates new GUI widgets
  - User-defined look and feel
- Designed for nonprogrammer users
- One of earliest uses of inferencing for PBD
- Inferencing for
  - Graphical constraints (user gives one example)
  - Iteration (user gives two examples)
  - …

Procedure PropSheet (Items)
- ActiveValue  Selected-Props

Should show user's input: “Selected-Props” and its value “(Italic Underline)”
Peridot B. Myers 1987

Note value of "Selected-Props"

User creates gray rectangle

Peridot B. Myers 1987

User creates black rectangle

Peridot proposes constraint
Peridot B. Myers 1987

Peridot establishes constraint:

Black rectangle is now the same size as gray rectangle and at the specified offset.

Peridot B. Myers 1987

User creates white rectangle

Peridot proposes constraint.
**Peridot** B. Myers 1987

User creates string "Bold"

Peridot proposes constraint

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**Peridot** B. Myers 1987

User selects and copies rectangles and text
Peridot B. Myers 1987

User changes “Bold” to “Italic”

Peridot infers an iteration over the elements in “Items” and asks user to confirm

Peridot performs the iteration
Peridot B. Myers 1987

User places check mark icon in box

Peridot proposes constraint

- User places simulated mouse over check mark with middle button down, indicating a mouse dependency
- Peridot infers dependency on the single active value → check mark for all items in the single active value list
- User selects mouse action (e.g., toggle value)
Peridot  B. Myers 1987

- Widget created with Peridot can now be used with current “Items” list or with different “Items” list
  - Different item strings
  - Different number of items

Chimera  D. Kurlander 1988–92

- Example-based graphical editing
  - Editable graphical histories
    - Comic-strip/storyboard metaphor
    - Inspect to review
    - Revert to undo
    - Edit to change/redo
    - Select, parameterize, generalize to create “macros by example”

http://www.kurlander.net/DJ/Videos/GraphicalEditingbyExampleVideo.shtml
**Chimera** D. Kurlander 1988–92

- Graphical history can be used to select past actions
**Chimera** D. Kurlander 1988–92

Original objects

Text

Text

First test

Dark Grey

Black

Light Grey

Light Grey

Testing

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**Chimera** D. Kurlander 1988–92

Debugging
Chimera  D. Kurlander 1988–92

Original objects  Text
First test  Text
Second test  Text

Testing again

Stagecast Creator A. Cypher & D.C. Smith 1990s–present

- PBD for children to create simulations, games
- History
  - KidSim (Apple)
  - Cocoa (Apple)
  - Creator (Stagecast)

http://www.acypher.com/creator/
http://stagecast-creator.software.informer.com/
Generating Photo Manipulation Tutorials F. Grabler et al. SIGGRAPH 2009

2. Use the path tool to select the sky. Then click on “Create Selection from Path” in the toolbar.

3. Use the Paint Bucket tool to fill the selected area with white color.

4. Use the Eraser tool to remove any unwanted parts.

5. Use the Adjustment Layers feature to adjust the brightness and contrast.

6. Use the Layers feature to add new images or modify existing ones.