

22-1-90

Autolay

Implementation (prototype)

1. Form/menu mechanism

- 1. cursor/mouse control. 1
 - 2. field entry/editing. 1
 - 3. scrolling. 1
 - 4. error display. 1/2
 - 5. function key menus. 1/2
 - 6. pop-up menus. 1/2
 - 7. dialog boxes (e.g. for filenames) } use dedicated lines? 1/2
 - 8. file retrieve/save. 1
- general design
-
- 2
8 days

2. Specific screens (non-graphic)

- 1. sheet definitions 1/2
 - 2. piece definitions 1/2
 - 3. sheet set definition 1/2
 - 4. layout specification 1/2
-
- 2

3. Configuration

2

4. Layout display/editing

- 1. data structures 1
 - 2. display update (including zoom) ~~2~~ 4
 - 3. deletion/insertion 2
 - 4. move 2
-
- 10 ~~8~~

5. Output

- Graphic output to dot-matrix printer 2
 - ~~Graphic output to laser printer~~ ~~2~~
 - Text output to printer 1
 - Layout to file - comma-delimited format 1
-
- 4

6. Memory/file usage

- Put failure lists etc in paged files 2
 - ~~TOTAL 26 days (5 weeks)~~
 - Tidy-up memory allocation so new layout can be started without leaving/re-entring program 2
-
- 4

TOTAL 30 days (6 weeks)

Files.

There may be several files of each of the following types:

1. Sheet definitions
Each entry specifies name of sheet, width, ~~and~~ height, and position of origin.
Used to provide default width & height ^{only.} and position of origin.
2. Piece definitions
Each entry specifies name of piece, width, and height, ~~and position of origin.~~
Used to provide default width & height only.
3. ~~Piece set definition~~
~~Each entry specifies name of piece, width, height, and how many required.~~
4. Sheet set definition
Each entry specifies name of sheet, width, ~~and~~ height, and origin.
5. Layout specification
Sheet name, width & height, position of origin. ~~and~~
MenuB: ~~Piece set definition~~ For each piece: name, width, height, number required.
MenuH: ~~Piece set definition~~ For each piece: name, width, height, number required.
6. Layout solution
(MENU) ~~Sheet name, width & height, position of origin.~~ (6 number, n type)
Label type names + no excluded. ^{label names}
For each piece: name, width, height, x-position, y-position.

There is also one general configuration/defaults file which contains:

1. Display type (EGA/VGA, Hercules, etc)
2. Output device (NEC PB+, Epson, HP Laserjet)
3. Name of default sheet definition file.
4. Name of default piece definition file.
5. Name of default sheet set definition.
6. Name of directory for default files.
7. Position on piece for coordinates (centre, top-left, etc)
8. Default grid size (for layout editing)
9. Colour table.
10. Directory for temporary files.

2. Screens

1. Define/edit sheet definitions.

Form: one line per sheet, specifying name, width, height, origin.

Menu: retrieve (filename), save (filename), exit, new.

2. Define/edit piece definitions

Form: one line per piece, specifying name, width, and height.

Menu: retrieve (filename), save (filename), exit, new.

3. Define/edit sheet set definition

Form: one line per sheet, specifying name, width, height, and origin.

Menu: retrieve (filename), save (filename), exit, new.

4. Define/edit layout specification

Form: sheet name, width, height, origin: OR sheet set

One line per piece, specifying name, width, height, number required.

Menu: retrieve (filename), save (filename), exit, construct layout, new.

5. Layout construction.

Graphic display of best layout found so far.

Text display of efficiency & no of sheets found and being attempted.

Escape key pauses construction and provides menu:

save (filename), ~~go~~ exit, continue, edit, ~~print~~ output.

6. Edit layout

Graphic display of layout.

Menu: save (filename), retrieve (filename), new, exit,

delete, insert, move, undo, define (set of pieces which can then be deleted or moved - similar to WordPerfect block mode), zoom-in,

zoom-out.

7. Output

8. Configuration

3/2 Keyboard usage (form/menu)

Function keys:

F1 help

other keys for menu options.

Escape: cancels current operation. queries if substantial amount of work would be lost.

Cursor keys: move reverse-video cursor from one field of form to another.

PgUp, PgDown: scrolls scrollable part of form up or down.

Printable character: initiates editing of ~~highlighted~~ field highlighted by reverse-video cursor.

4/2 Mouse usage (form/menu)

Button release on field moves reverse-video cursor to that ~~field~~ field.

Button release on menu item selects that item.