A Visual Tour
of Andrew

Snapshots of the Andrew system,
a campus-wide computing network,
a joint venture between IBM and
Carnegie Mellon University.

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11.9.89
A Visual Tour of Andrew

Notes on the following pages:

1. The opening screen for Andrew.

2. The default arrangement of windows and columns. The console window (upper left) indicates that I have 7 new pieces of mail. I invoke the Messages program by selecting Read Mail or Read News from the pop-up menus. I can also type messages in the typescript window, if I prefer.

3. Messages: default presentation of folders that I'm subscribed to, content titles of one selected folder, and the contents of one selected message. Icons in the middle panel indicate new mail and seen (saved) mail. Selection of a title or a folder is indicated with bold type.

4. Messages: I can delete a message by selecting it and using the menus.

5. Messages: the deleted message is indicated in the middle panel with a smaller point size and a "grey" mail icon. I now want to compose and mail a reply to the sender of a particular note, so I select Reply to Sender from the menus.

6. Messages: the Send Message window with the address information automatically filled in. With the reply completed, I select Send/Post from the menus. The program verifies addresses, then sends the message. The window's title bar and the message area below the window will indicate when a message has been posted.

7. Messages: because I had previously instructed it, the Send Message window automatically hides itself after posting the note. The Messages window then reverts to filling in the entire right-hand column. (If I had to hide the Send Message window by hand, the Messages window would not reformat itself. It would remain in position, unchanged.) Here, I'm reviewing the contents of another folder, this one a bulletin board. As with mail, icons are used to indicate the difference between "new" and "seen" postings.

8. Messages: I can print out the contents of a particular posting by selecting it and using the menus.

9. The Console window now indicates that there is one document waiting to be printed. A new window has been created in the right column, this one called ez, which is the editor for text and multi-media documents.

10. ez: I can preview my document before sending it to the printer.

11. ez: this preview window shows me exactly how the document will look when printed. From there, I can print the document by using the menus.

12. The printed page from a laser printer.

13. Displaying a raster image is possible in one of the bulletin boards. Andrew allows the user to scan in an image and imbed it in a document or display it behind widows (see some of the next pages).

14-19. Sample screens collected on a walk through several public Andrew clusters. Most of the users represented here were Computer Science or Engineering students, those very familiar with the system and who knew how (and wanted) to customize their working environments. In general, students in other majors tended to keep the default Andrew settings and went about their work. Page 18 has the new Motif interface, running on X.
Welcome To

Andrew

An experimental system produced by
the Information Technology Center,
a joint project of CMU and IBM.
Dan 13 messages
Starting messages (Version 7.11, AT&T 12.2),
please wait...
dan 2 4.

console   ShowSeconds  parnassus
Load       Monday 10/9/89

Snapshot stored in file /tmp/snapshot-1 (1:35:51 PM)

typescript parnassus

Dan 13 messages
Starting messages (Version 7.11, AT&T 12.2),
please wait...
dan 2 4.

Date: Thu, 5 Oct 89 13:32:00 est
From: munnar!isofway.sw.anu/gary@uunet.UU.NET (Gary Corby)
To: dan+@andrew.cmu.edu
Subject: Re: Icons: Cross-linguistic Discussion

Newsgroups: comp.cog-eng
References: <12_5VmM0UK5M_dUQv@andrew.cmu.edu>

In comp.cog-eng you write:

> Before I send them out, though, I want to check with those of you who
> addressed this topic on this b-board, and find out if you have any
> objections to my doing this. All the printed posts are identified with
> your names and addresses.

Go right ahead. I'd be interested to hear of any comments. Could you
post any to the group please?

> I'd appreciate a response by the end of his week, if at all possible.
Date: Fri, 6 Oct 89 16:28:07 -0400 (EDT)
From: Jim Morris <jmorris@andrew.cmu.edu>
To: Peter Lucas <plucas@andrew.cmu.edu>,
     Joseph M. Ballay <jmb@andrew.cmu.edu>,
     Roy D. McKelvey <rmdl@andrew.cmu.edu>,
     Dan Beyar <dbeyar@andrew.cmu.edu>
Subject: Allan I Harris

I visited him today. He owns a six-person Advertising/Marketing firm that used Macintoshes for everything. They have a subsidiary, Task Pictures, spreading the Mac culture in some of the ways Discourse is considering classes, consulting, etc. He is also getting into multi-media demonstrations

1. I'm introducing him to Discourse next week as the best possibility for someone to operate the Pittsburgh Design Lab --- better him than us.

2. He would be delighted to have the same sort of connection to CMU that Alec is pursuing --- access to students and knowledge about emerging graphics technology. He hasn't contemplated paying for this,
I'm aware of the CHI conferences, but I only have the 1984.
I also know about many of the journals such as International
Man/Machine Studies, Human Factors, etc. Unfortunately
the IEEE has now working closely with a bunch from Bell Labs, so I've
their library.

I was wondering if you are published anything at
CMU TR or do you know any such TRs on visual communication
I've got Berin's "Semiology of Graphics", but I want more......

Any ideas?

Thanks,

George

...
console  ShowSeconds (7.4)  parnassus messages  6 Changed Folders  parnassus

Load  Monday 10/8/89

Snapshot stored in file /tmp/snapshot-1 (1:35:51 PM)
Snapshot stored in file /tmp/snapshot-2 (1:41:09 PM)
Snapshot stored in file /tmp/snapshot-3 (1:44:45 PM)
Snapshot stored in file /tmp/snapshot-4 (1:49:49 PM)

typescript  parnassus

dan 1 % messages
Starting messages (Version 7.11, ATN 12.2), please wait.
dan 2 % printmap /tmp/snapshot-1
print: warning: scale switch (X) ignored.
print: snapshot-1 being queued on printer
dogwood
dan 3 % printmap /tmp/snapshot-2
print: warning: scale switch (X) ignored.
print: snapshot-2 being queued on printer
dogwood
dan 4 % printmap /tmp/snapshot-3
print: warning: scale switch (X) ignored.
print: snapshot-3 being queued on printer
dogwood
dan 5 %

messages-send  Composing  parnassus

To: reggie@paradyn.com (George Leach)
Subject: Re: Icons: Cross-linguistic Discussion
CC: Other
In-Reply-To: <mgE3RD-0000V3C@dinsdale.paradyn.com>
References: <mgE3RD-0000V3C@dinsdale.paradyn.com>

File  Search/Spell

George,

I can mail you (by regular mail, yes) a couple of articles
Information Technology Center (ITC) over the past few years. I'm
Group here, and we've been working with the developers on And
network.

Regards,

dan

Checkpointing message... done. Wrote CKP file in ~/M2ABk52000Uk51E9Uka.CKP
2-Oct-89 Thursday, 10/5 Speaker - Mary Strenio (1231+0)
2-Oct-89 F: A high-level language f. - Amanda Walker@uu:net.uu (81B)
3-Oct-89 Student Volunteers for Hype. - Maria G. Weidow (21446+0)
4-Oct-89 Jaap's Bridge - Dorothy A. Zaborenski (391+0)
5-Oct-89 Hole Punch - Dorothy A. Zaborenski (109+0)
5-Oct-89 Kurzwel Scanner - Dorothy A. Zaborenski (530+0)
5-Oct-89 Staff Meeting - Dorothy A. Zaborenski (737+0)
6-Oct-89 Get Well Card - Dorothy A. Zaborenski (110+0)
6-Oct-89 Bruce Lindsay slides - Ann Marks (55+0)
6-Oct-89 Thom Peters' Status - John Howard (531+0)
6-Oct-89 the Office of Technology Tr. - David Anderson (1117+0)
9-Oct-89 10/19 Speaker, Nix - Canceled - Mary Strenio (185+0)

Date: Fri, 6 Oct 89 10:44:26 -0400 (EDT)
From: Ann Marks <annm@andrew.cmu.edu>
To: ITC-Bulletin-Board <itcbb@andrew.cmu.edu>
Subject: Bruce Lindsay slides

are now available from Dorothy in the reception area.
I'm working on developing an optimal keyboard (not QWERTY) for "one-fingered" typing, and am looking for:

1. General advice. Does anyone know any good references (human or written) on the subject?

2. Ideas regarding possible users. (hand-holds, typewriters for handicapped, etc.)

3. Information regarding public acceptance of new designs.

Any help would be greatly appreciated.

From: adams@herb-ox.berkeley.edu (Jeffrey P. Adams)
Subject: one-finger keyboard
Date: 6 Oct 89 22:10:15 GMT

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Cross-Cultural Aspects of Icon Design

Many of us, in the process of designing icons for computer interfaces, face the problem of having to design an icon that needs to be understood by other cultures.

I happened across this bulletin-board, at the suggestion of a colleague, and found the discussion on this topic to be relevant, fascinating, and entertaining. *I STRONGLY ENCOURAGE YOU* to read the entire discussion. By no means is this a thorough discussion of the topic, but certainly food for thought.

Each note's author is identified at the top of the note, and sometimes at the end, if space allowed. Some of the authors expressed a desire to be kept abreast of any feedback. If you have any comments you might wish to add, please send them to me via e-mail or regular mail; my addresses appear below.

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412.268.6717
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I happened across the bulletin-board, at the suggestion of a colleague, and found the discussion on this topic to be amusing, interesting, and enlightening. I hope it will be the same for you.

It is important to understand the cultural context of the icon, but also consider the potential for misinterpretation.

Each symbol is identified by the top of the image, and sometimes at the side, if space allowed. Some of the symbols expressed a desire to be simplified and clear to all. If you have any comments or thoughts to add, please send them to me via e-mail or regular mail; my address is below.

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dan@danb.com

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UCD Building, 2nd Floor
California Institute of Technology
Pasadena, CA 198 3
41210.077
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<table>
<thead>
<tr>
<th>Message ID</th>
<th>Date</th>
<th>Subject</th>
<th>Recipient</th>
<th>Attachments</th>
</tr>
</thead>
<tbody>
<tr>
<td>27-Oct-88</td>
<td>Now there is a BB for Mohawk - Kerr Doran Reno</td>
<td>462+0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-Jun-89</td>
<td>Re: New folder - magazines... - Pierrre Maniego</td>
<td>1218+0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9-Sep-89</td>
<td>Whaat - Joseph Paul Cepece</td>
<td>39+0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>29-Sep-89</td>
<td>Re: Whaat - Kerr Doran Reno</td>
<td>361+0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Typescript:
```
<readmail>
Starting messages (Version 7.12, ATK 12.4);
please wait.
<read>
```
```plaintext
$V_0 e^{-r t}$
$V_0 e^{-(z + \cos(2)t))\sin(x)}$
```

```
y=x
y=0
```

```
\[ y(t) = x(t) \]
\[ y(t) = 0 \]
```

```
\[ \frac{dy}{dx} = \frac{\sin(x)}{\cos(x)} \]
\[ \frac{dy}{dt} = \frac{\sin(t)}{\cos(t)} \]
```

```
\[ y(t) = x(t) \]
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```
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\[ y(t) = x(t) \]
\[ y(t) = 0 \]
```

```
\[ \frac{dy}{dx} = \frac{\sin(x)}{\cos(x)} \]
\[ \frac{dy}{dt} = \frac{\sin(t)}{\cos(t)} \]
```
procedure Gaussolve (var A, B : MatrixRecType; var x : MatrixRecType); 
{ input: A, B (coefficient matrix and constant vector) 
output: x (solution vector) 
} 
Describes Computes the solution to Ax = b using Gaussian Elimination.

var Row, Col, PivotRow : integer;
Pivot := real;
begin 
  (Gaussolve) 
  for PivotRow := 1 to NRows do 
    begin 
      Pivot := A, Matrix (PivotRow, PivotRow); 
      for Row := (PivotRow + 1) to NRows do 
        (begin) 
          for Col := PivotRow to NRows do 
            begin 
              Matrix (Row, Col) := Matrix (Row, Col) - Matrix (PivotRow, Col) * Matrix (PivotRow, Col); 
            end; 
          end; 
        end; 
      end; 
    end; 
  writeSystem (A, B); 
end; 

{************************************************** Main Program **************************************************} 
begin 
  Gaussolve (A, B); 
  writeSystem (A, B); 
end.