

Systems that
don't work
(or can't be used)
and why

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The Plan

Look at various interfaces --
not just computer ones!

Analyze their problems

Present best practices to create
an interface that really works

Show a few good examples as well

Who is most important?

Database anesthesiologist

Database psychiatrist

Lost in Birmingham



Can we go now?



www.BadDesigns.com

Which way to 1512 ?



Vote very carefully

Confusion over Palm Beach County ballot

Although the Democrats are listed second in the column on the left, they are the third hole on the ballot.

Punching the second hole casts a vote for the Reform Party.

(REPUBLICAN) GEORGE W. BUSH - PRESIDENT DICK CHENEY - VICE PRESIDENT	3 →
(DEMOCRATIC) AL GORE - PRESIDENT JOE LIEBERMAN - VICE PRESIDENT	5 →
(LIBERTARIAN) HARRY BROWNE - PRESIDENT ART OLIVIER - VICE PRESIDENT	7 →
(GREEN) RALPH NADER - PRESIDENT WINDMA LaDUKE - VICE PRESIDENT	9 →
(SOCIALIST WORKERS) JAMES HARRIS - PRESIDENT MARGARET TROWE - VICE PRESIDENT	11 →
(NATURAL LAW) JOHN HAGELIN - PRESIDENT NAT GOLDHABER - VICE PRESIDENT	13 →



(REFORM) PAT BUCHANAN - PRESIDENT EZOLA FOSTER - VICE PRESIDENT	4 ←
(SOCIALIST) DAVID McREYNOLDS - PRESIDENT MARY CAL HOLLIS - VICE PRESIDENT	6 ←
(CONSTITUTION) HOWARD PHILLIPS - PRESIDENT J. CURTIS FRAZIER - VICE PRESIDENT	8 ←
(WORKERS WORLD) MONICA MOOREHEAD - PRESIDENT GLORIA La RIVA - VICE PRESIDENT	10 ←
WRITE-IN CANDIDATE To vote for a write-in candidate, follow the directions on the long stub of your ballot card.	



Standards



Help is not the answer



Huh?



I can't make it work!

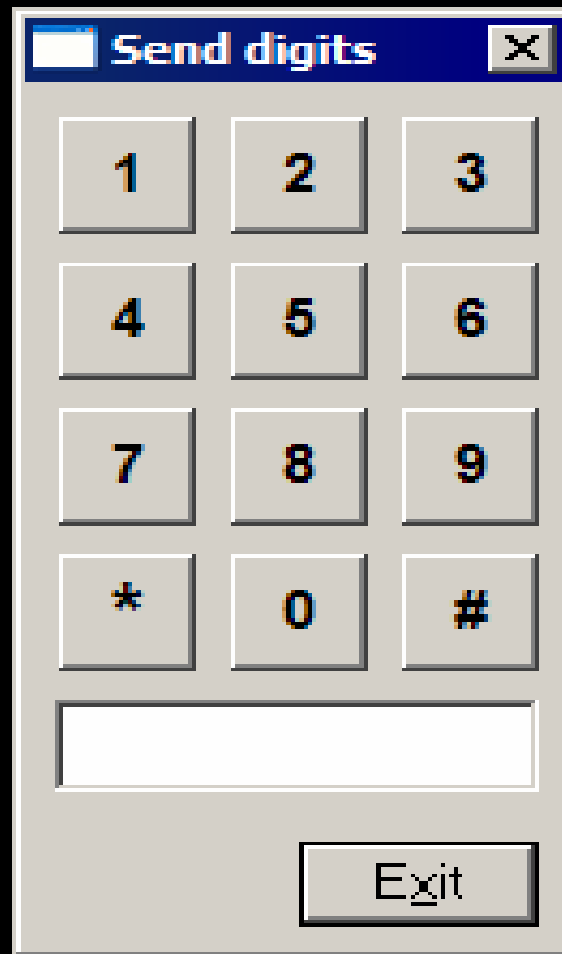


Carelman's pot for masochists

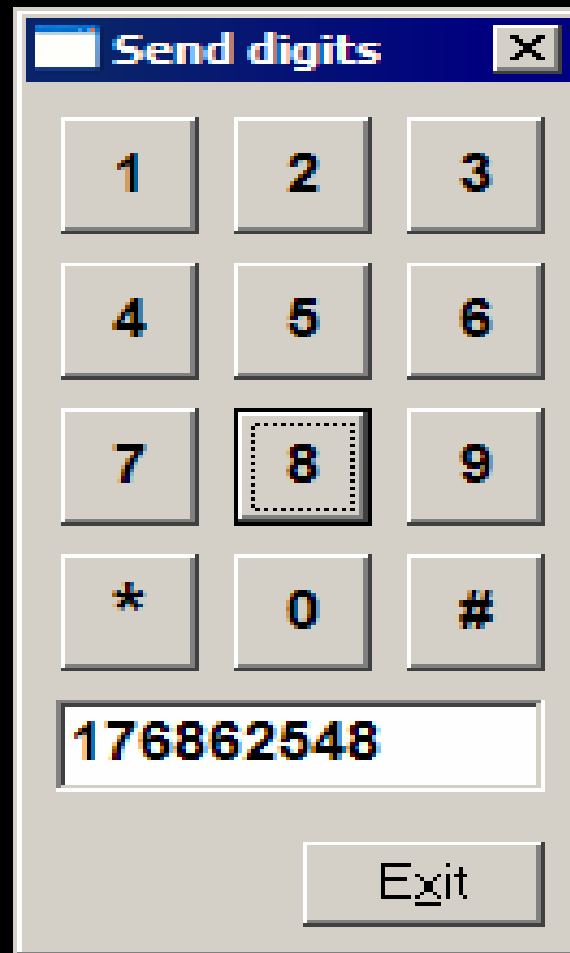


Carelman's tandem for fiancés

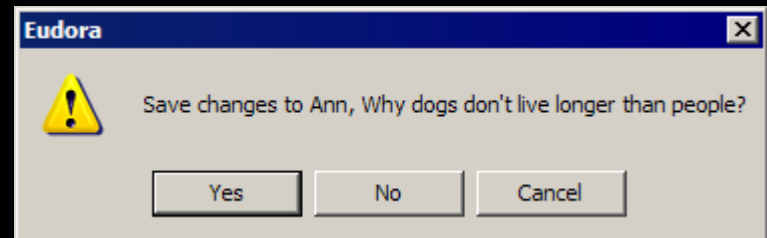
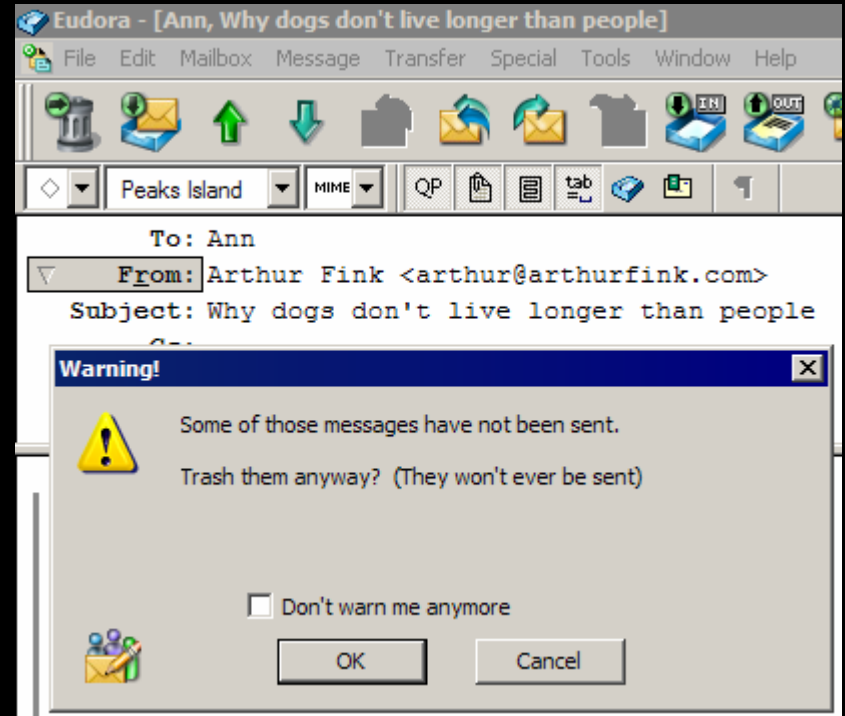
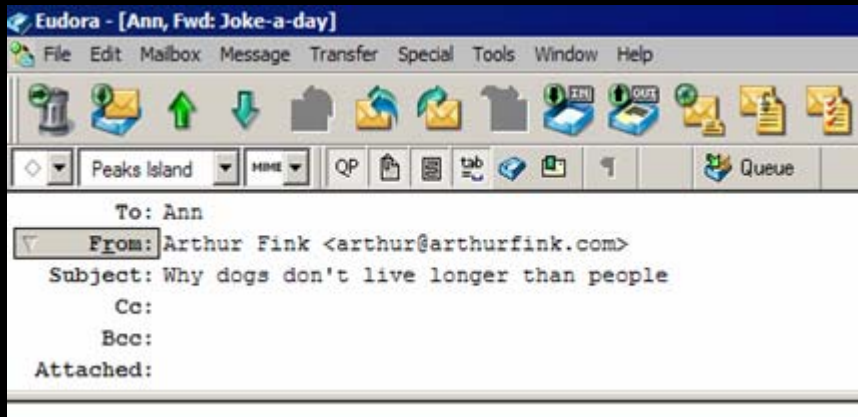
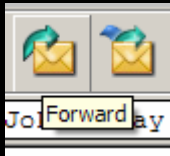
The dial pad solution



How should it behave?



Didn't you hear me?



Getting ready to fax

Arthur Fink Consulting
www.ArthurFink.com

October 10, 2003

Mary Ellen Hooper
McGlynn, Clinton, and Hall
83 Boston Post Road
Sudbury, MA 01776

Please send proof of insurance to:

Washington Mutual
PO Box 25064
Santa Ana, CA 92799

Phone 866-926-8937
Fax 714-937-2430

Note that the mortgage clau

Print

Printer

Name: WinFax Properties

Status: Ready

Type: WinFax

Where: FaxModem

Comment: Print to this device to send a fax. Print to file

Print range

All

Current page

Pages from: 1 to: 1

Copies

Number of copies: 1

1 1 2 2 3 3

Print

Limit pages to:

Current division Selection

Selected pages only Select Pages...

Including: Both odd and even pages

But now, how to proceed?

The screenshot shows the WinFax PRO Send application window. The title bar reads "WinFax PRO Send". The menu bar includes "File", "Edit", "View", "Insert", "Recipient", "Options", and "Help". The toolbar contains icons for "Send", "Preview", "Email", and other functions. The main form has the following fields:

- To: Hooper, Mary Ellen
- Number: 19784430263
- Company: McGlynn, Clinton & Hall
- Recipients: (empty)
- Subject: (empty)

On the right side, there is a recipient list table:

Name / 1	Company / 2	Fax
Mark Segar	Waynflete School	207 772-4...
Marko Kucher	Weleda	800 280-4...
Mary Ellen Hooper	McGlynn, Clinton & Hall	978 443-0...
New England Yearly ...	New England Yearly Meeting	508 754-9...
Sam Farraj	The Apothecary	845 425-1...
Scott Stacey	Norton Insurance	207 772-4...
Tom Thomsen	Woodward Thomsen	207 774-0...

Below the form is a rich text editor with a toolbar showing "Arthur Fink" as the author, "Arial" font, size "12", and bold, italic, underline, and annotate options. The main preview area shows a cover page on the left and the following text on the right:

Arthur Fink Consulting
Tel: 207 766 5722
Fax: 207 766 5722

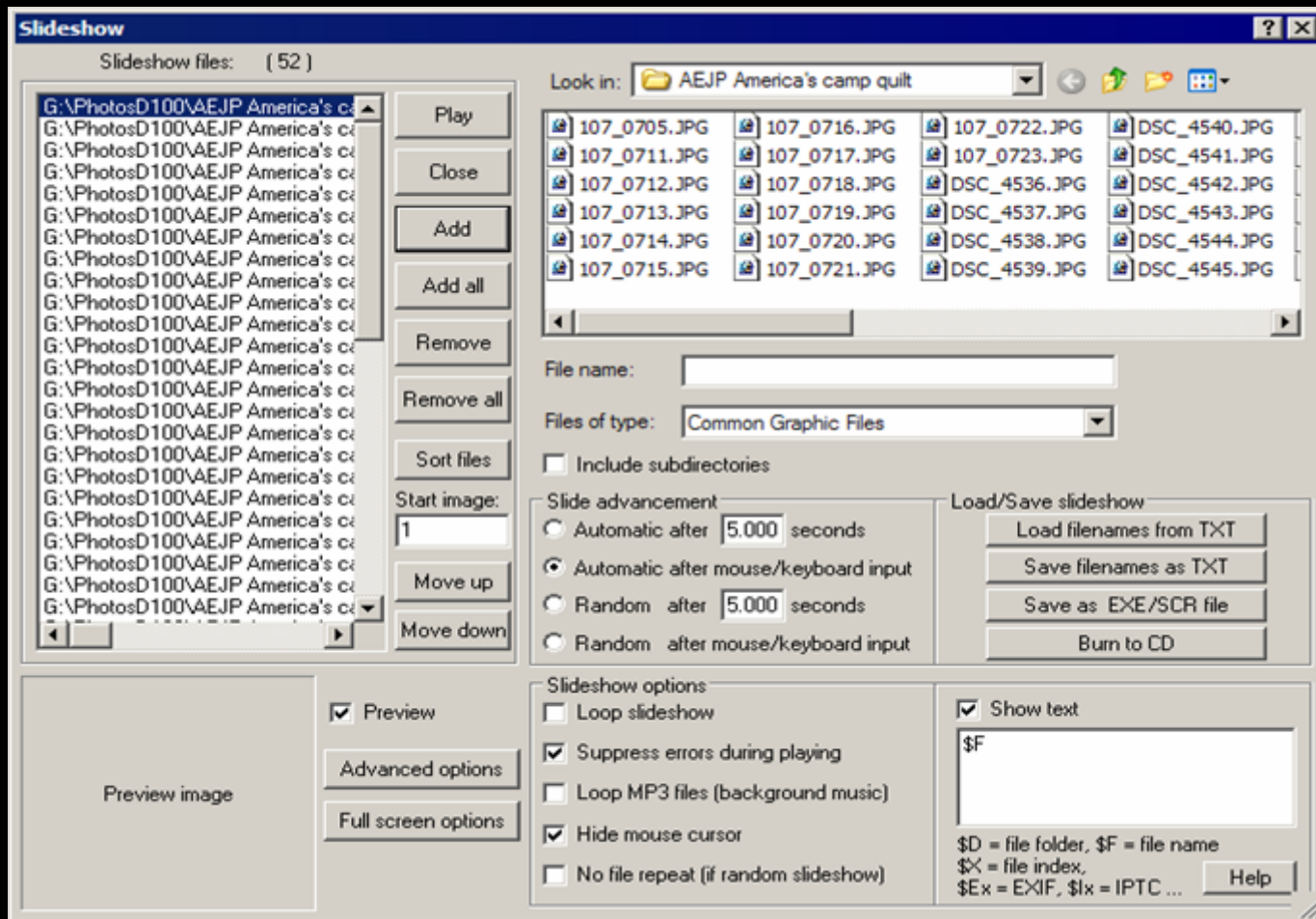
To: Hooper, Mary Ellen
Fax #: 19784430263
Company: McGlynn, Clinton & Hall

From: Arthur Fink
Fax #: 207 766 5722
Tel #: 207 766 5722

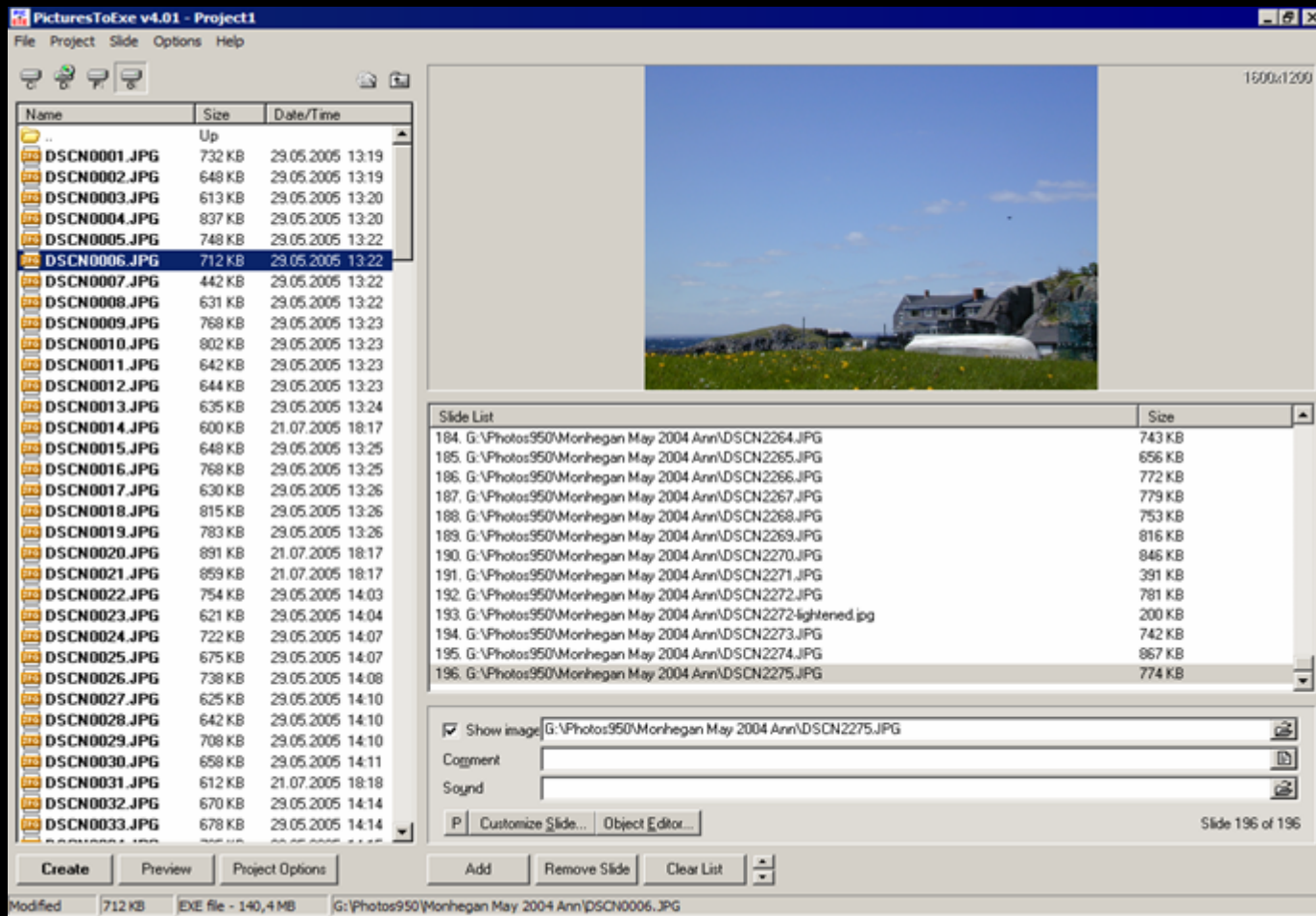
Subject:

Sent: 10/21/2003 at 9:04:50 PM Pages: 2 (including cover)

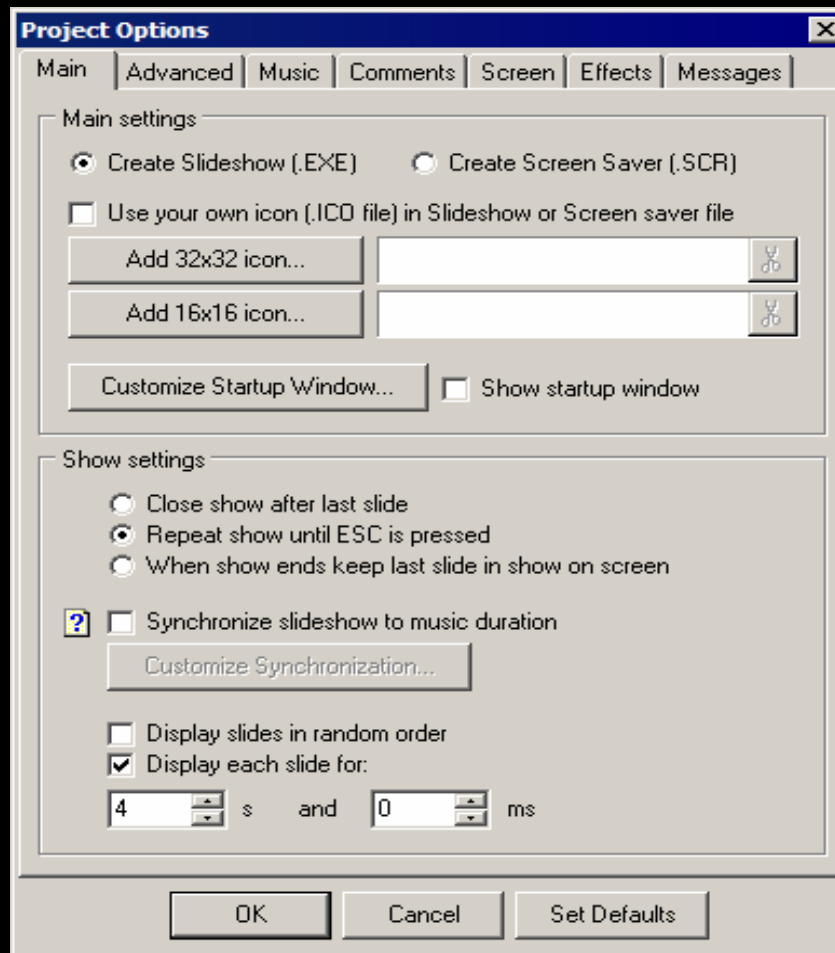
Do I need all this?



This program needs less



'Options' are elsewhere



Which way to go?



That's right



U-Turns Only?



Stop?



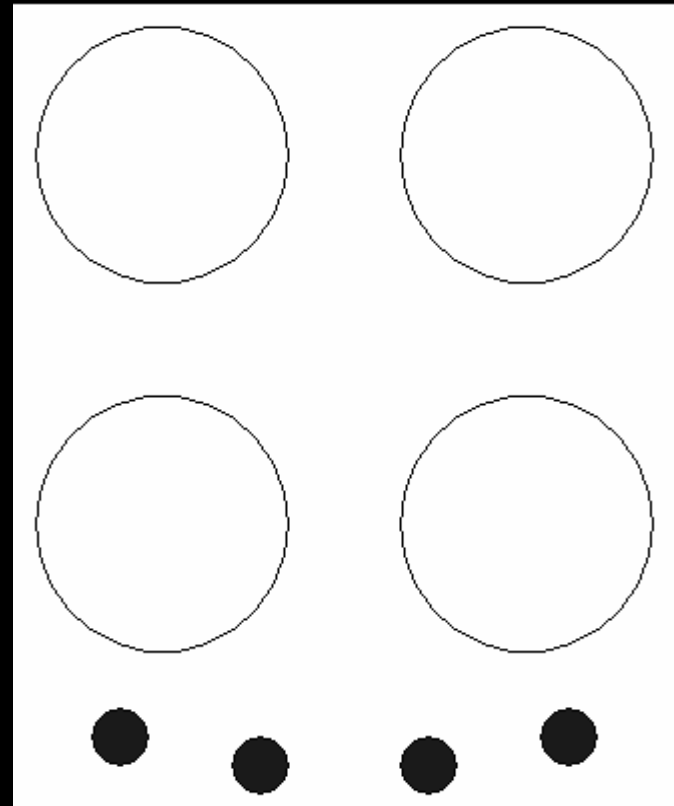
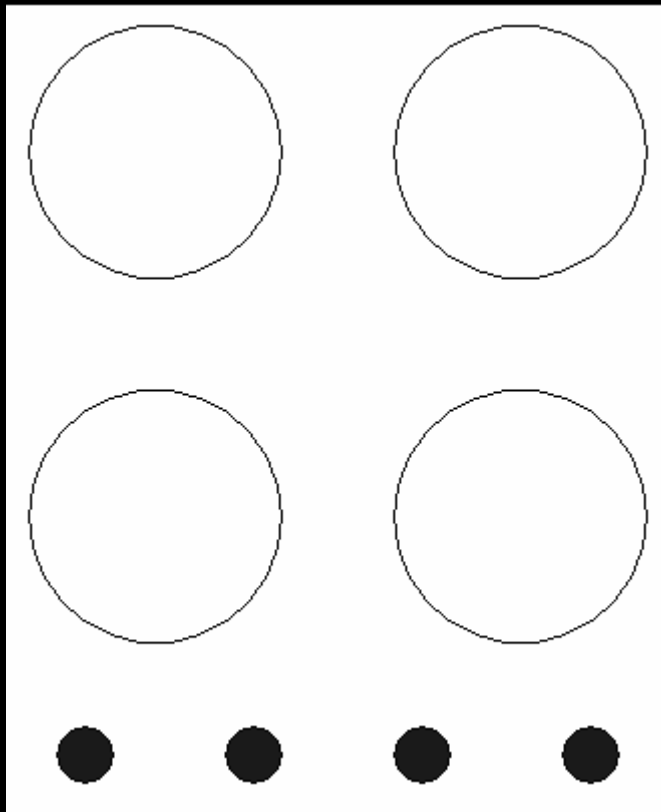
In case you don't know



Read carefully



Design for Usability



What Users Really Do?

We may not know

They may not know

It's worth finding out!

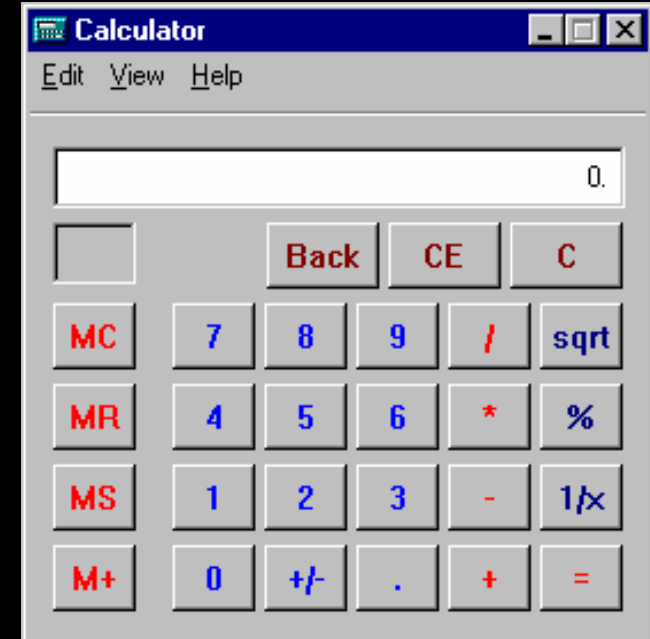
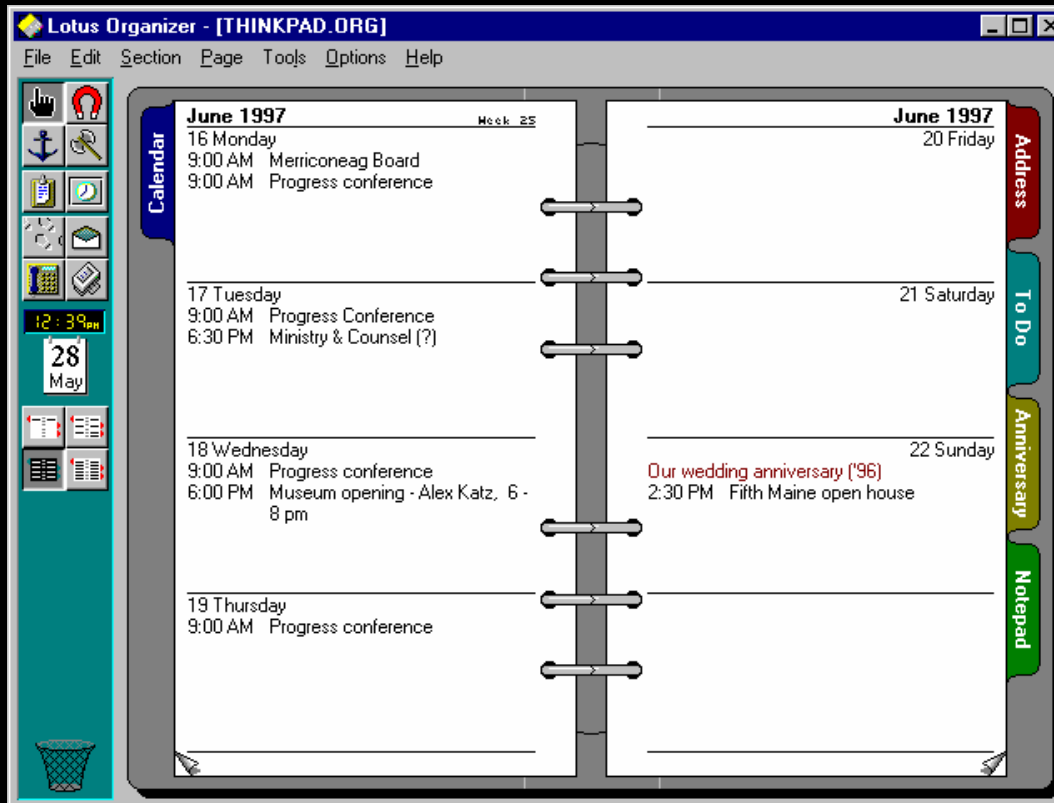
Really do!

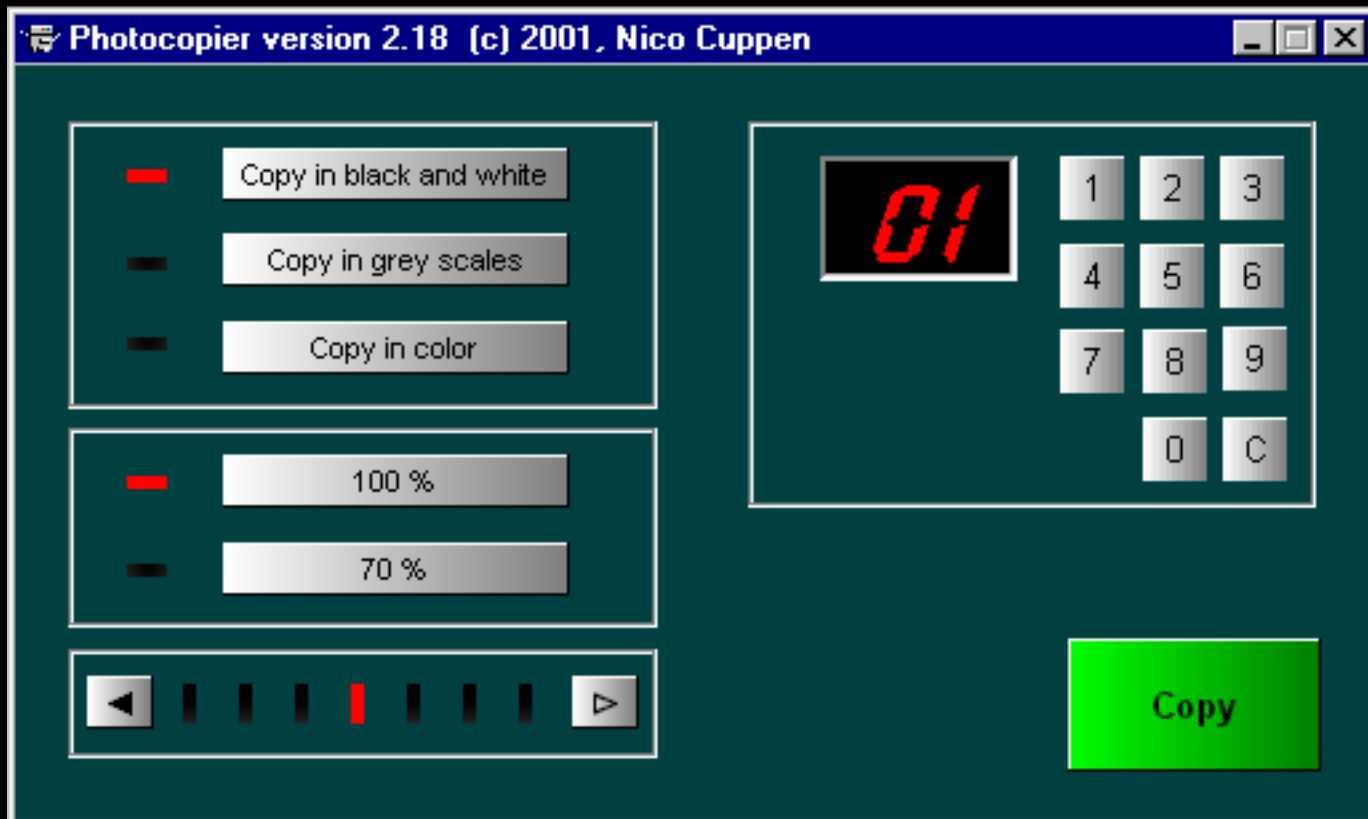


Look Carefully

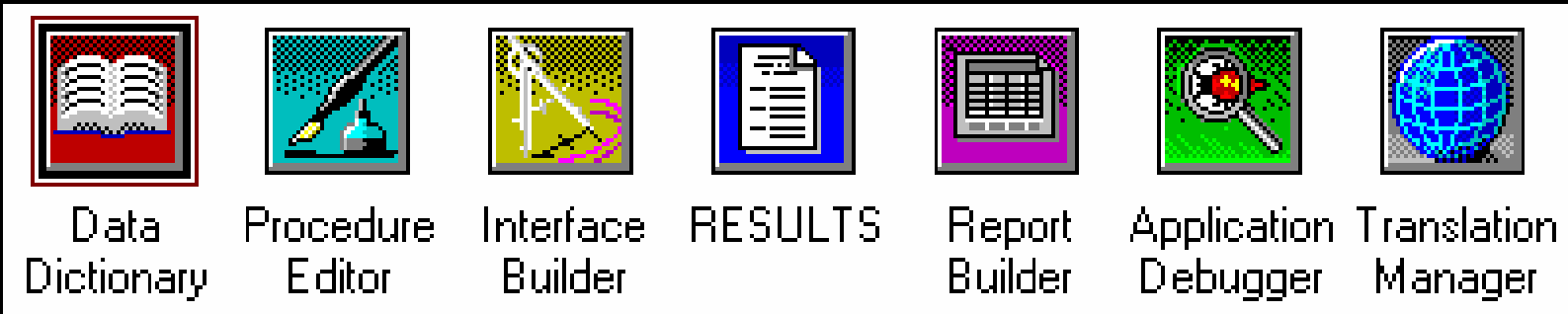
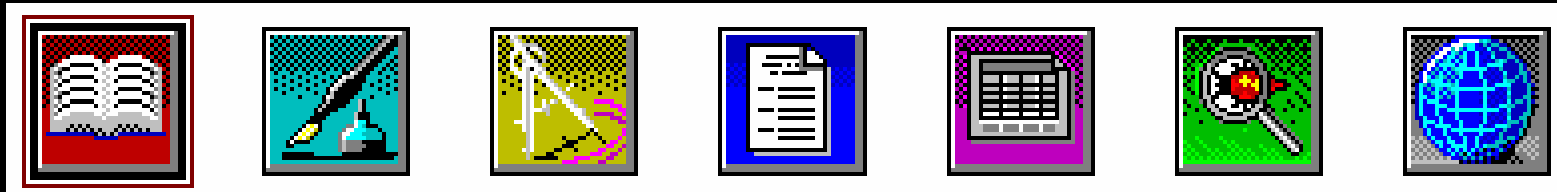


Will metaphors help?





How about icons?



Received Faxes

Scheduled Faxes

Fax Log

Data Log

Connection Log

Action Bar

Retouch

Select a test:

Audio

Modem

Microphone

Handset

View System Files

Or color?



Admin

Claimants

Crops/Application

Pest

Settlement

Pay To

Settlement

Settlement Type: **SETTLE NOW WITH A CHECK**

Close Date: 7/9/97 **mm/dd/yy**

Desired Payment Date: **mm/dd/yy**

Estimated Settlement \$:

Total Settlement \$:

Post and Send

Save for Later

1

2

3

4

5

6

May 1998

Su	Mo	Tu	We	Th	Fr	Sa
26	27	28	29	30	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31	1	2	3	4	5	6

Navigation: << < > >> Today!

Billable **0.75** Time Sheet Status: **Approved**
 Non-Billable **9.00**

= Blank = Submitted/Approved
 = Editable = Active Date

Billing Rate 1: 235.00 Billing Rate 2: 235.00

Manage Projects & Year Ends

Close

Submit

Help

Locate

Review

x1	Client Code	Partner	Year	Proj.	Work Code	Hours	Comments	Rate2
	MAGPLANT	MARGIL	1998	2	83	.25	obtain info from sylvie	<input type="checkbox"/>
	NONCHG		1998	1	971020	6.00	industry canada proposal	<input type="checkbox"/>
	NONCHG		1998	1	971045	1.00		<input type="checkbox"/>
	NONCHG		1998	1	971100	.75		<input type="checkbox"/>
	NONCHG		1998	1	971260	1.25	ADRIEN PERRON	<input type="checkbox"/>
	PFK	MARGIL	1998	1	51	.25		<input type="checkbox"/>
▶	SKM	CLASTA	1998	3	83	.25	discuss with Ken and finalize questionnaire	<input type="checkbox"/>

Sternthal Katznelson Montigny

BUSINESS DEVELOPMENT SEMINAR

Consultations with clients



What are we seeking?

Usability

- Interface should be “transparent”
- Objects on screen work “naturally”
- Minimum of “gotcha’s”
- User can focus on the real task!
- Simple screens guide the user
- Icons, colors, give appealing feel

What are we seeking?

Standardization

- User already knows how to work it
- Moves easily across platforms
- Many interface objects already built
- Modules are re-usable
- Closely follows Microsoft examples
- Coordinated systems and paper flow

Refining the Interface

Clear modality

Visual cues

- Default buttons
- Dimming inactive objects
- Metaphors (copying a household object)
- Icons
- Colors
- Fonts

Sensible design

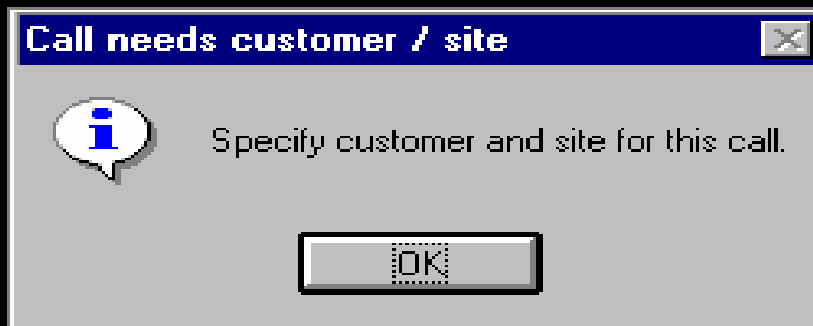
Error messages

Clear, and non-technical

Tell user how to solve problem

Enter a valid employee ID not Employee not found

Don't blame user, or say "error"



If they knew how I wrote it,
They'd use it right.

Wrong!

Which model to follow?

Mental model: User's Vision of the world

Implementation model: How the program is built

Shield users from the implementation model -- although this is the model used by most software today.

Recognition Not recall

Users forget commands, codes, icons, etc.

Gui lets you show choices;
User just points to right one

Help by consistency in buttons, icons, other objects

Use easily recognized symbols

H I K L Q R S Y
, ` . / 0 c f m
i r v x > F G N

The mouse takes time

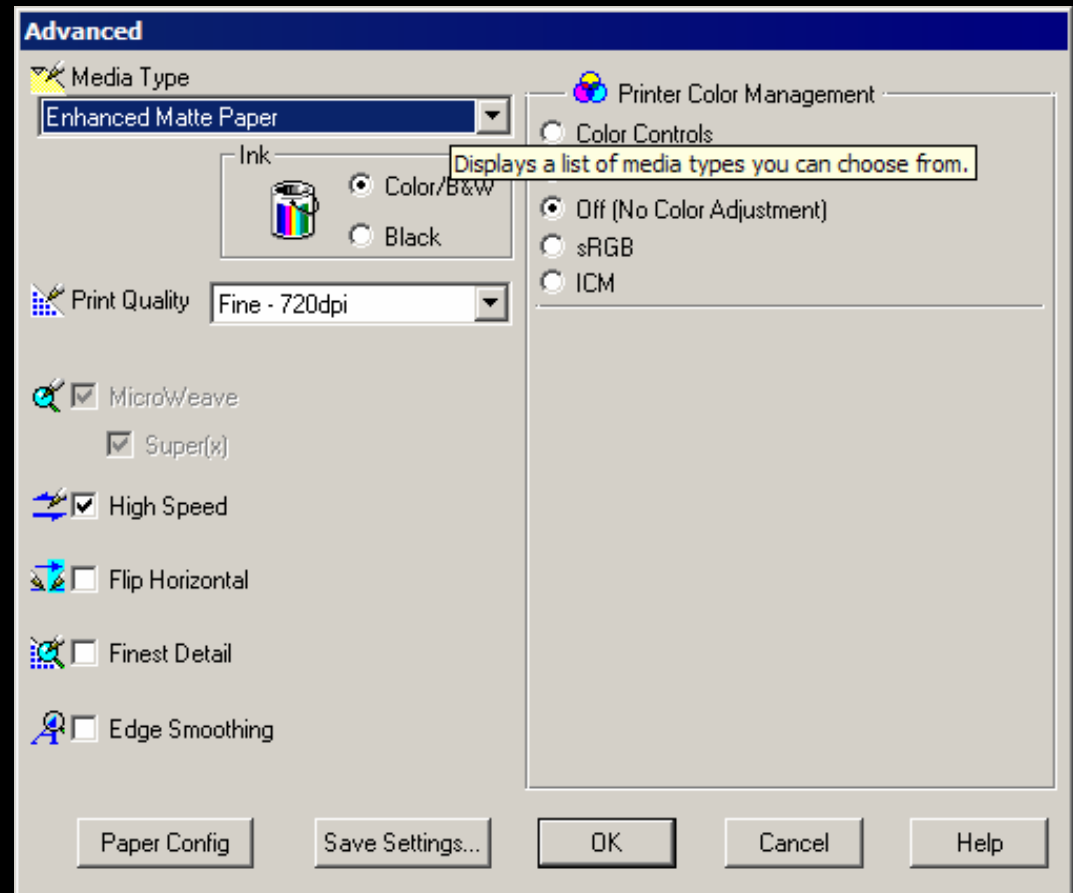
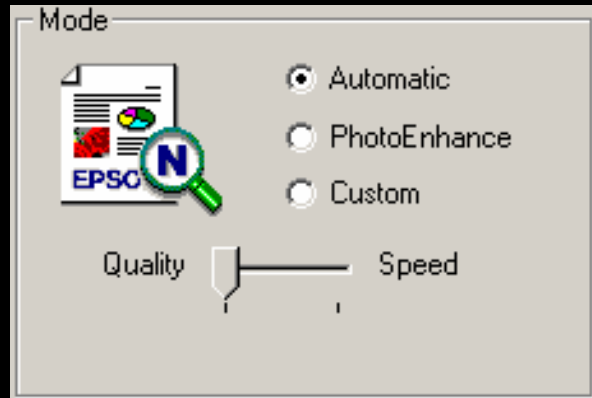
Provide alternatives to mouse
“point-and-click”

- “Accelerator” or “hot” keys
- Function keys
- Mnemonics on the button

Progressive disclosure



Progressive disclosure



Design for affordances

Affordance = How an object communicates the way it is used

Dates

Start 03 / 20 / 95

Stop 03 / 20 / 95

March 1995

			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

< Prev month Next month >

Help me 'mat' this photo



Will this help me?

The screenshot displays the MatWorks software interface, divided into three main sections: INPUT, OUTPUT 1, and OUTPUT 2.

INPUT: This section contains various input fields and dropdown menus for configuring the matting process. It includes fields for MAT SIZE (Width: 20, Height: 29), PRINT SIZE (Width: 17, Height: 25), and IMAGE SIZE (Width: 13, Height: 20). There are also dropdown menus for MAT LAYOUT and PRINT LAYOUT, both set to Landscape. The MATTING STYLE section offers options for MAT STYLE (Double Mat) and MAT OVER IMAGE OVERLAP (0.25). A Calculate button is located at the bottom of this section.

OUTPUT 1: This section displays the calculated dimensions for different matting options. It includes tables for Back Mat, Single Mat, and Double Mat, showing Mat Size, Mat Opening, and Bottom Weight. The text "by: Giorgio Trucco www.gt-photography.com" is also present.

OUTPUT 2: This section shows a preview of the mats dimensions, titled "Mats Dimensions Preview (Drawing is in scale)". It features a central image of a landscape with flowers, surrounded by a yellow mat and a white border.

OUTPUT 3: This section shows three diagrams illustrating the matting process for different mat styles: Back Mat, Single Mat, and Double Mat. Each diagram shows the image, the mat, and the dimensions of the mat and opening. A vertical ruler on the left side of this section provides a scale for the dimensions.

Legend: Back Mat Print Paper Single Mat Opening Double Mat Opening

What needs to be here?

MAT SIZE 1 () 20	MAT SIZE 2 () 24	MAT LAYOUT Landscape
PRINT SIZE 1 () 13	PRINT SIZE 2 () 19	PRINT LAYOUT Landscape
IMAGE SIZE 1 () 11	IMAGE SIZE 2 () 16	IMAGE LAYOUT Landscape
MATTING STYLE		
MAT STYLE Double Mat	<input type="radio"/> Centered <input checked="" type="radio"/> Bottom Weighted <input type="radio"/> Double Bottom Weighted	
MAT OVER IMAGE OVERLAP -0.5	MAT to MAT DISTANCE 1	
Calculate		

I'd use this if . . .

The screenshot shows a software interface for calculating matting dimensions. It includes input fields for mat and print sizes, layout options, and matting style settings. A red box highlights the 'Single Mat' results table.

MAT SIZE1 (")			MAT SIZE2 (")			MAT LAYOUT		
20			24			Landscape		
PRINT SIZE1 (")			PRINT SIZE2 (")			PRINT LAYOUT		
13			19			Landscape		
IMAGE SIZE1 (")			IMAGE SIZE2 (")			IMAGELAYOUT		
11			16			Landscape		
MATTING STYLE								
MAT STYLE			<input checked="" type="radio"/> Centered <input type="radio"/> Bottom Weighted <input type="radio"/> Double Bottom Weighted					
Double Mat								
MAT OVER IMAGE OVERLAP				MAT to MAT DISTANCE				
-0.5				1				
Calculate								

Back Mat		
	Width	Height
Mat Size (")	24	20

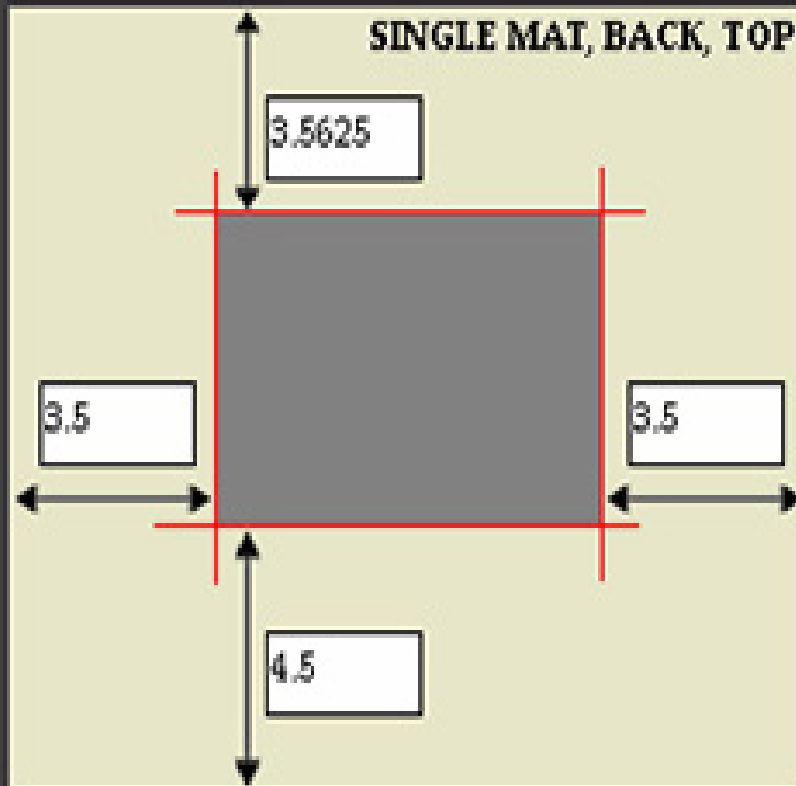
Single Mat		
	Width	Height
Mat Size	24	20
Mat Opening (")	17	11.9375
Bottom Weight (")	4.5	

Double Mat		
	Width	Height
Mat Size	24	20
Mat Opening (")	19	13.9375
Bottom Weight (")	3.5	

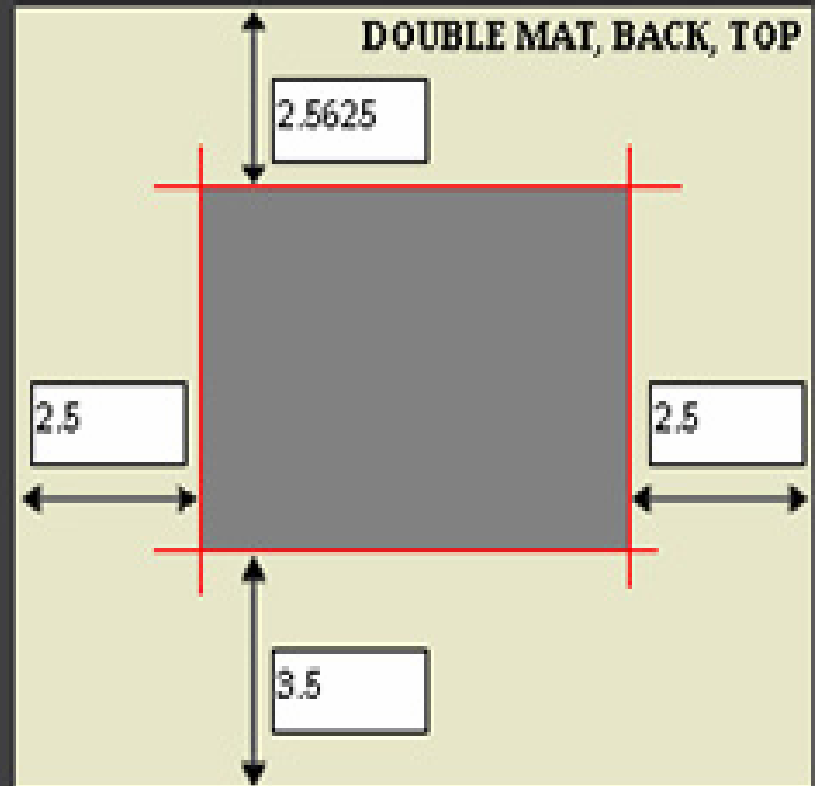
by: Giorgio Trucco
www.gt-photography.com

This is my language!

Single Mat (Drawing not in Scale)



Double Mat (Drawing not in Scale)



Here's the claim

A Free Piece of the Solution:

MatWorks! is a simple program that provides a virtual matting board for a variety of matting projects. With **MatWorks!** you can easily calculate the dimensions of the Mat opening and preview the final results using some of the most common matting options.

Most important, **MatWorks!** is a free software.

I initially wrote this small application for my personal use. After using and refining it, I found it so useful that I decided to donate it to the community of Fine-Art Photographers who mat their own artwork.

As shown in the screenshot below, the program User Interface is designed as a single window. All the input controls and program outputs are organized in logical and easy to understand groups.

RawShooter premium 2006 - _DSC0189.NEF

Correct | Batch convert |

Color Temperature 5700

Tint -9

Appearance Custom

Exposure compensation 0.00

Fill Light 0

Shadow contrast 0

Highlight contrast 0

Detail/Noise | Curve/Levels | Color

Saturation 0

Hue 0

Vibrance 0

Color Balance

Color Balance wheel

Thumbnail

xy 3897, 1651 68 31 33

NIKON D200: _DSC0189.NEF
95 mm, f 5.3, 1/1600 sec., ISO 200

20.00 %

Histogram

A formal design process

Review tentative designs with users and management

Re-design following each review

Budget time and \$ for re-design

Define criteria to measure success

Use a formal style guide

Paper prototyping

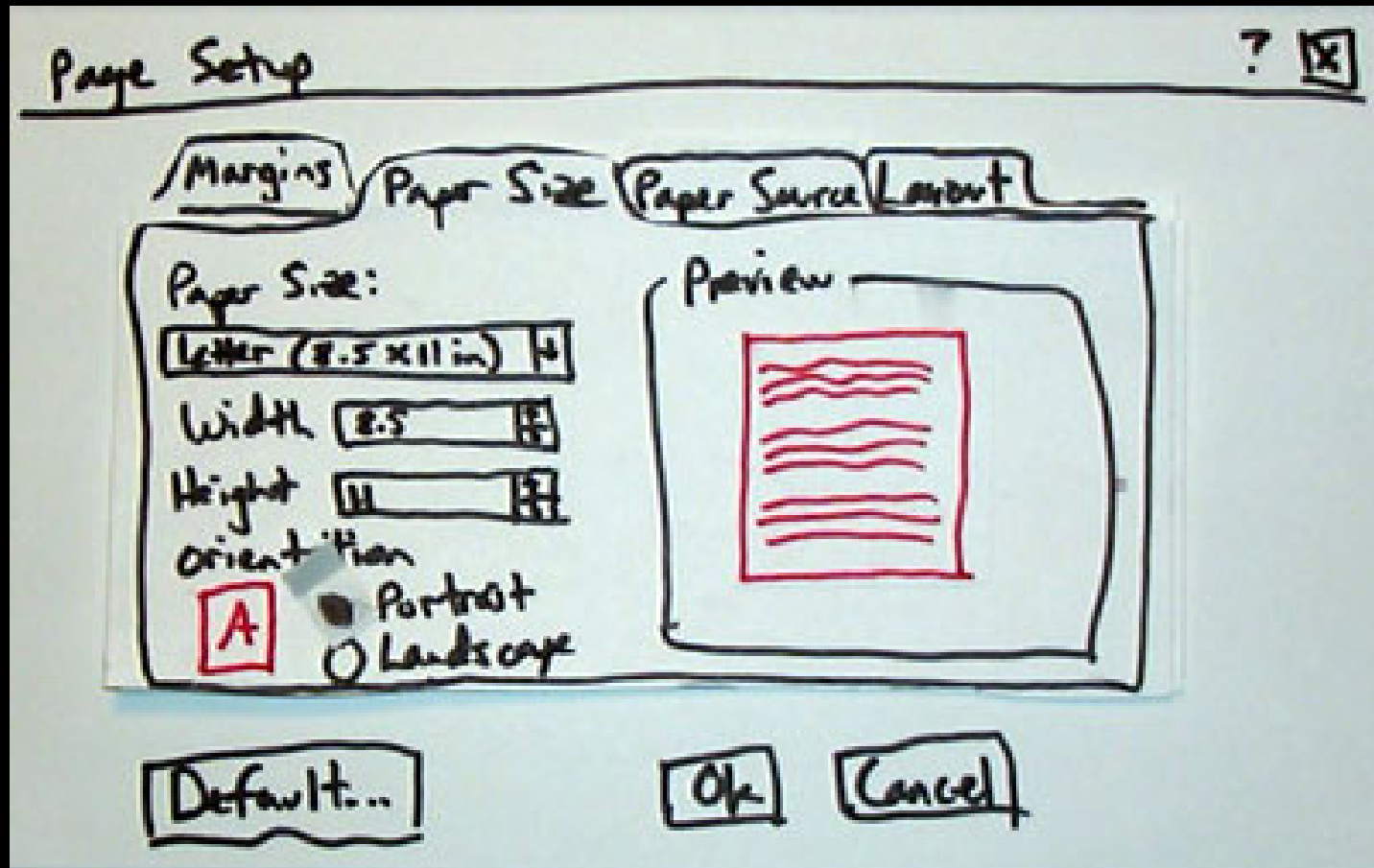
Develop screens from paper and board (be creative)

Developers “play” the computer

- Manipulate the interface
- Simulate program behavior

Users take simulation seriously, and provide real feedback

Not fancy



-- Carolyn Synder

Prototyping goals

Are the supposed affordances really affordances?

Can users proceed confidently?

Do users trip, have to backtrack?

Can they get help in their own terms?

Design goals

Keep it simple (no extra activity)

Don't cram data onto screen

Minimize transitions to do task

Think of user's hands, moving
between keyboard and mouse

Affordances everywhere!

Consistency

With the “real world” (as a model)

Within and among applications

- Shared & consistent conceptual model
- Common language & visual elements
- Same objects have same function

Use standard interface elements

Forgiveness

Allow for user's interactive discovery

Provide only appropriate choices

Minimize chance for "errors"

Handle mistakes gracefully
(guide users back gently)

User interface design

Be guided by the user experience

User should find screen intuitive

Paper prototyping works

Follow standards

Keep screens simple and clean

Provide enough “affordances”

Practice kindness.



Arthur Fink www.arthurfink.com

Thank
you

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