Test Your Tech

Blazing away is:

A. The BBC drama about Charles Dickens.

B. Learning a new software program without reading the manual.

C. A fire burning out of control.

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Announcements

- If your lab section still doesn't look right in MyUW
  - See Jason Curry in MGH 470

Announcements

- Labs were canceled yesterday and today
  - Because of a prior commitment for the computer classroom for two days
  - We weren't informed in advance so we couldn't notify you ahead of time
    - Classic communication glitch:
    - I thought I told you/We thought you knew

Announcements

- Lab 2 is postponed until next week
- Nothing is due on Monday
  - We'll talk about uploading to Catalyst next week
- Read chapter 3 for Monday
- Pop quiz next week
  - More about that at end of lecture

Tech Support

- Why couldn't I hook up to the Internet in lecture Wednesday?
  - This model of Lenovo laptop has a problem with only partially waking up from "Sleep Mode"
    - Which affects network connections
  - Advice from Tech Support:
    - Don't put it in sleep mode on the way to lecture!
    - Reboot if all else fails

Video

- Fitness: Skills, Concepts and Capabilities (5:38)
  - http://uweoconnect.extn.washington.edu/fitnessskillsconceptscapabilitiesdslfit7/

What the Digerati Know

Other people can teach you computer applications or you can figure them out for yourself

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Learning New Tools

How do we learn to use new tools?

- Reading the owner's manual -- chain saw
- Be taught in their use -- car, bicycle
- Figure them out ourselves -- iPod

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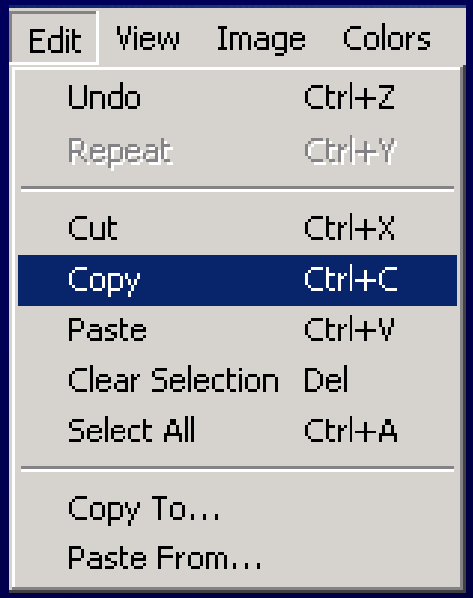
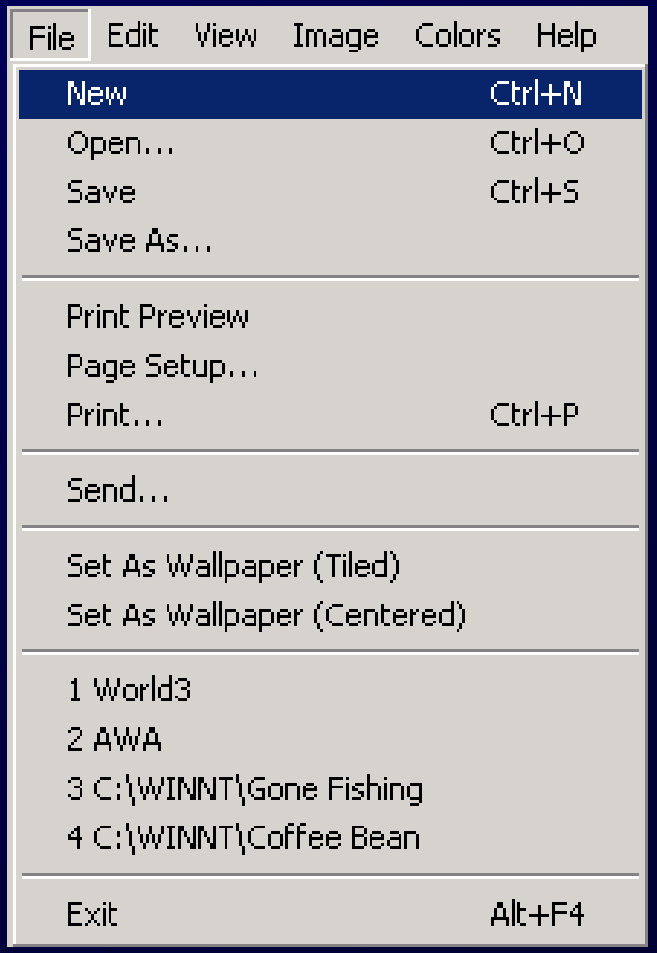
- Software designers wanting you to learn their tool ASAP, try for 'intuitive'
  - Consistent Interfaces -- build on experience
  - Suggestive icons -- bypass terminology
  - Metaphors -- exploit analogous reasoning

Standard Functionality

Most applications have File and Edit





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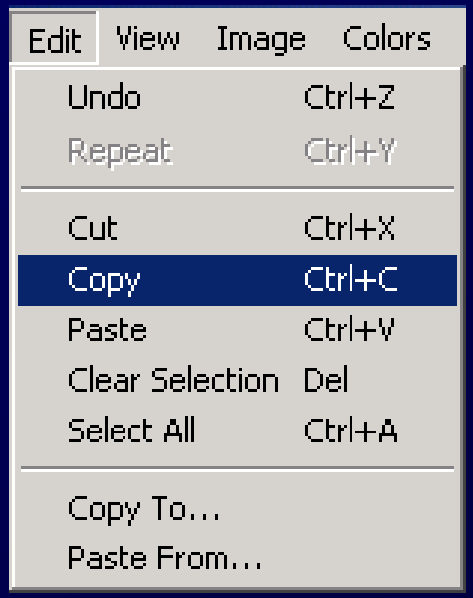


Impress your friends with your knowledge of Japanese

What does ‘New’ Mean?

‘New’ means create a ‘blank instance’

To understand ‘blank instance’ know that information has properties as well as content which are all stored in a table with a place for everything

Document: Date created, date modified, creator, fonts, content, diagrams, pictures, tables, ...

A ‘blank instance’ is simply the structure without any of the content

Example

- Checkbook register
  - A blank line is a new instance
  - Same structure
    - Column headings: date, payee, reconciled, withdrawal, deposit, balance
    - Data types for each column: date, text, y/n, currency, currency, currency

DATE	PAYEE	Rec	WD	DEP	BAL
12/31/07	Rentals R Us		750.00		1235.00
1/1/08	BIG S Season Pass		499.00		736.00

"Click Around"

Software designers use standard ideas to make applications intuitive

- To learn a new application, check it out by clicking around
  - Take a minute to ...
    - Look under all menus to see operations
    - Follow the "..." for menu operations
    - Try to recognize what the icons mean

Clicking around is exploration

A New Application

Find:

- consistent interface
- icons
- metaphor

C:\Program Files\Canon\ZoomBrowser EX\Image Library One\My Images\Japan2 - ZoomBrowser EX

File Edit View Properties Internet Help

HongKong0
Iceland
Istanbul1
Istanbul2
Japan1
Japan10
Japan11
Japan12
Japan13
Japan14
Japan15
Japan16
Japan17
Japan18
Japan2
Japan3
Japan4
Japan5
Japan6
Japan7
Japan8
Japan9
MyImages2
NewMexico
NewZealan
NewZealan
NewZealan
NewZealan
NewZealan
NewZealan
NewZealan

REGISTER IMAGE FOLDER

136-3652_IMG.JPG
136-3653_IMG.JPG
136-3654_IMG.JPG
136-3655_IMG.JPG
136-3656_IMG.JPG
136-3657_IMG.JPG

SCROLL MODE
ZOOM MODE
C:\Program Files\Canon\ZoomBrowser EX...\Japan2
Contains 119 images
ZOOM OUT
ZOOM IN
SELECT

REFRESH
IMPORT IMAGES
DELETE
VIEW IMAGE
PRINT
SHOW PROPERTIES

Metaphors

Net Point Video: Metaphors

http://uweoconnect.extn.washington.edu/metaphorsdslfit7/

“Blazing Away”

Learn an application fast by trying it

- Beginning with a new instance, assertively try menu items
  - *Expect to fail* and make a mess
  - Exit the application, and if you are asked “Save?” reply “No”
  - Try repeatedly until becoming familiar

If you are trying to achieve some goal, keep your eyes on the prize

To Learn A New Tool

Software systems build on a consistent interface, standard metaphors, etc.

* Expect to teach yourself applications
* Do so by familiarizing yourself with the features ... “Clicking Around”
* Assertively try out the features, “Blaze Away,” watching what they do
  - Be efficient -- stay focused, don’t type a lot when you expect to exit

If all else fails ...

Differences & Similarities

Different vendors will produce similar software for the same task

- Superficially, the GUIs use similar features
- Fundamentally, the task largely determines how the software must work ... they *must* be similar

Differences & Similarities

- Different vendors will produce similar software for the same task
  - Superficially, the GUIs use similar features
  - Fundamentally, the task largely determines how the software must work … they *must* be similar
- Implications …
  - Know one word processor, learn others fast
  - SW differences: mostly glitz, convenience
  - Don't accept lousy … switch to other SW

Mac or PC???

Which is better—Mac or PC?

- Arguments create only heat, no light
  - They are more alike than different
  - Any Fluent person can use both

Homework 2: Find a Macintosh computer on campus, e.g. MGH 1st floor or OUGL labs. Try out the Mac and see what you find familiar and what is different. Locate the browser, and check the class web page. Hand in a list *describing* in a sentence or two five features you find different, and five that are the same.
Due: Before 5pm on Friday, January 18, 2008

Another Implication

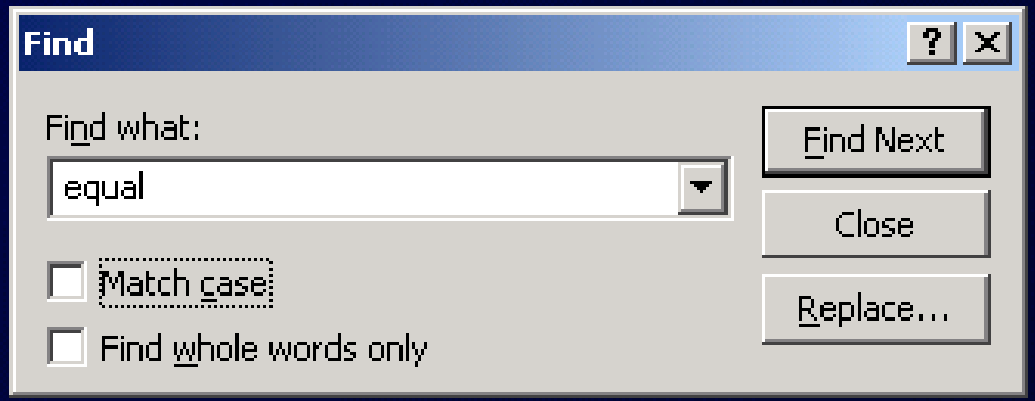
If SW is similar at its core, computations can be taught without learning a specific vendor's SW ...

Another Implication

If SW is similar at its core, computations can be taught without learning a specific vendor's SW … consider text searching and replacement

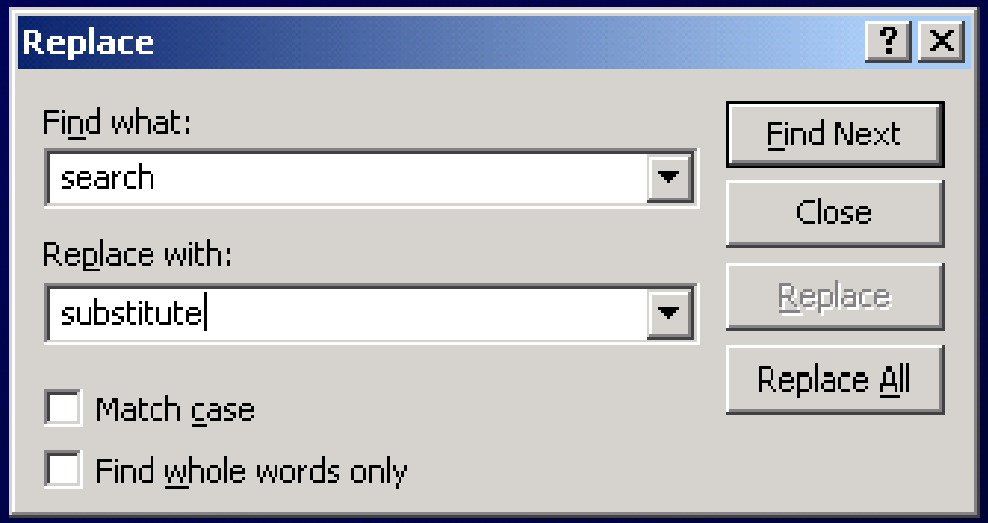
Article 1. All human beings are born free and equal ...

eeeeeeeeeeeeequal



Replacement

Two strings are required: search string and substitution string



- Adopt a notation: **`search * substitute`**

Notation Example

Illustrating the use of the notation

* Using the replacement **Clinton × Bush**

  The sentence

  "At the White House President Clinton said …"

  Becomes

  "At the White House President Bush said …"

* It's easy to express substitutions

Gore × Cheney / Albright × Powell / Socks × Buddy

To show deletion use epsilon, ε, as in: word × ε

Placeholder Technique

A common problem … copying text off web often trashes the line breaks

```
Roses are red

Violets are blue

Searching is fun

But doesn't rhyme
```

Intended

Trashed by extra line breaks →

```
Roses are
red

Violets are
blue

Searching is
fun

But doesn't
rhyme
```

Placeholder Technique

Formatting is performed by special (non printing) characters ...

```
Roses are red↵
↵
Violets are blue↵
↵
Searching is fun↵
↵
But doesn't rhyme↵
```

Intended

Trashed by extra line breaks →

```
Roses are ↵
red↵
↵
Violets are ↵
blue↵
↵
Searching is ↵
fun↵
↵
But doesn't ↵
rhyme ↵
```

Placeholder Technique

Roses are ↵red↵↵Violets are ↵blue↵↵...

- Deleting the single ↵ deletes them all!

```
Roses are ↵
red↵
↵
Violets are ↵
blue↵
↵
Searching is ↵
fun↵
↵
But doesn't ↵
rhyme ↵
```

→

```
Roses are redViolets
 are blueSearching is
 funBut doesn't rhyme
```

Thinking of the Input

Roses are ↵red↵↵Violets are ↵blue↵↵...

- Placeholder technique ...

  Step 1. Substitute a placeholder for the longer string

  ↵↵ ✖ #

  Yielding

  Roses are ↵red#Violets are ↵blue#...

  Step 2. Next, delete the shorter string

  ↵ ✖ ε

  Yielding

  Roses are red#Violets are blue#...

Placeholder Replaced

Step 3. Finally, replace the placeholder with the original long string

× ↵↵

Yielding

Roses are red↵↵Violets are blue↵↵...

The intended result!

- Summarizing the placeholder

  longstring × *placeholder*

  shortstring × ε

  placeholder × *longstring*

Summarizing

Humans must learn to use tools

- Software designers want you to learn easily
- SW uses consistent interface, metaphors, …

* Teach yourself applications by "Clicking Around," and "Blaze Away"
* SW for a task must share core features
* Learn app.s independently of vendor

Placeholder technique is effective for fixing text

For Monday

- No labs are due on Monday
- Read Chapter 3 of *Fluency*
- Review for next week's pop quiz

Next Week

- Pop quiz next week in Lab
  - Online
  - Ten questions
    - True/False
    - Multiple Choice
  - On Chapters 1-3

Next Week

- Review
  - Study questions at end of each chapter
  - Study answers to odd-numbered questions in back of book

Next Week

- Have a good weekend!