Test Your Tech

A local area network is:
A. An exclusive social club.
B. A group of computers, usually in a single building, connected by cables.
C. Local television affiliates of the big networks.

Unit I Project

Create a bogus (fictitious) Web page
In order to appreciate how easy it is to fake quality info
- Modify photograph, changing its meaning
- Write misleading text
- Add “authenticity” links, fake credentials...
- Your page should look as legitimate as possible, but contain false information

Here’s How It Works

Follow these steps:
- Create your page locally
- When finished, publish it on the server
- Do not touch after the deadline (10:00 AM)
- Submit your files in Catalyst Collect It
- Leave your page unchanged until grading is complete

We will check the timestamps

Project 1—Details on Web

You will ...
- Write page in HTML
- Find/take a photo
- Modify w/ Photoshop
- Find “authenticity” links
- Milestones
  - Turn in by 10pm Monday October 15:
    - Web page plans
  - Turn in by 10pm Monday October 22:
    - Web page + photo

Net Point Video

Fluency Essentials
- http://uweoconnect.extn.washington.edu/fitnessfluencyessentialsfit7/
Debugging & Troubleshooting

“To err is human, but it takes a computer to really foul things up”

Using Computers...

In IT, stuff goes wrong ... debugging is the process of finding the error

- Term coined by Grace Murray Hopper
- Best solution ... make no mistakes!
- Be accurate ... get it right the 1st time
- In most cases computers can’t recover for our errors

The standard of precision for computers is perfect, which is tough for people, but try!

When You Debug...

There are guidelines for debugging...

Rather than trying things aimlessly and becoming frustrated, think of yourself as solving a mystery

- Be objective: What are my clues? What is my hypothesis? Do I need more data?
- Consciously ‘watch’ yourself debug -- it’s an out-of-body experience
- When stumped, don’t become frustrated, but ask, “What am I misunderstanding?”

Debugging Guidelines

- Verify that the error is reproducible
- Determine exactly what the problem is
- Eliminate the “obvious” causes
- Divide process into working/faulty parts
- On reaching a dead end, reassess the information you have, trying to identify the mistake you are making
- Work through process making predictions and checking they’re fulfilled

Reproducibility

First step: verify the error is reproducible

- Transient errors are very rare, but they do happen ... try again

- Rebooting the operating system is advisable, especially for errors involving peripheral devices (printers, modems)

Determine the Problem

Second step: figure out what’s wrong

- Often there is a sequence of steps following an error and propagating it ... work backwards looking to see where the error first occurred
Eliminate the Obvious

Third step: eliminate obvious causes
"If the cause were obvious, the problem would have been fixed!"

• There are standard things to check:
  • Inputs
  • Connections
  • "Permissions"
  • Physical connectivity
  "Working" in similar situations is usually good enough

Isolate the Problem

Try to “partition” the situation into working and non-working parts
• Form a hypothesis of what’s wrong
• Make as few assumptions as possible
• Take nothing for granted
  the goal is to eliminate as many things from consideration as possible

At a Dead End, Reassess

When everything seems to check out, don’t get frustrated … ask, “What am I misunderstanding?”
• Your goal is to see the situation as it is, not as you think it should be
• Are you assuming too much?
• Are you misreading the clues?
  Sometimes, stepping back to the surrounding context is helpful

Make Predication/Check

Beginning with the isolated part, step through the process, predicting the outcome and verifying it
• A prediction that is not fulfilled shows...
  • A possible bug
  • A possible misunderstanding
  • A chance to narrow the search
  ‘Sleeping on it’ may help!

A Debugging Example

After building a web page, we find it is wrong

Husky Pride
Houston, we have a problem

Those Amazing Huskies!

Husky pride... "Husky pride..."... Husky pride... Chapter Five: A Brief History of the Alaskan Husky (also known as "Alaska")

There is a new "copyleft" movement, that confines this message photo in a way that makes it more public.

Debugging Demo

Husky Pride
"Husky pride..."... Husky pride... Chapter Five: A Brief History of the Alaskan Husky (also known as "Alaska"

There is a new "copyleft" movement, that confines this message photo in a way that makes it more public.
Animations

Debugging HTML

Summary

Debugging is not algorithmic, but there are guidelines to follow

- It probably pays to memorize them so they come to mind while debugging
- Watch yourself debug -- assess how you are doing, what you need to know
- Being accurate -- avoiding textual mistakes at all -- saves frustration

Notice how a few letters mess up a whole page!

For Friday

Read Chapter 8 in Snyder
Read Project 1 and plan your Web Site of Misinformation
  - Part 1A is due on Monday night before 10pm!