PowerPoint as a Powerful Tool

Tips for Effective Design and Increased Interactivity

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Why PowerPoint?

- To hold interest
- To focus attention
- To guide discussions/overviews
- To tell a story
- To support the message being delivered
- To create a poster for a conference

Tip #1 for Oral Presentations

Have only the minimum required text on each slide.

Text on Slide: Too Much

When in the Course of human events, it becomes necessary for one people to dissolve the political bands which have connected them with another, to assume among the powers of the earth, the separate and equal station to which the Laws of Nature and of Nature's God entitle them, a decent respect to the opinions of mankind requires that they should declare the causes which impel them to the separation.

We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty, and the pursuit of Happiness.

That to secure these rights, Governments are instituted among Men, deriving their just powers from the consent of the governed.

Text on Slide: Better

- We hold these truths to be self-evident
  - that all men are created equal,
  - that they are endowed by their Creator with certain unalienable Rights, that among these are:
    - life,
    - liberty
    - the pursuit of happiness

Tip #2

Be consistent and sparing in your use of transitions and animations.

Moving Text

- When text appears, we don't want the audience to be watching the animation.
- Use the

  "Appear effect"

  Not

  "FANCY EFFECTS"

Tip #3

Be consistent in your choice of bullets, font, and colors.

COMPOST QUALITY and FOOD SAFETY CONCERNS

A recent survey of 'finished' compost products produced at 30 California commercial facilities

- **Found large variation in many characteristics**
- **Indicates highly variable feedstocks and process management**

Poor process management, curing conditions, and cross-contamination of equipment are most common cause

Font Sizes

This is a good title size.
Verdana 40 point = sans serif.

This is a good subtitle or bullet point size.
Times 36 point = serif.

This is about as small as you want to
go for content at 24 points.

This font size is not recommended for content. Verdana 12 point.

Fonts and Background Colors

This is a good mix of colors. Readable!

This is a bad mix of colors. Low contrast. Unreadable!

This is a good mix of colors. Readable!

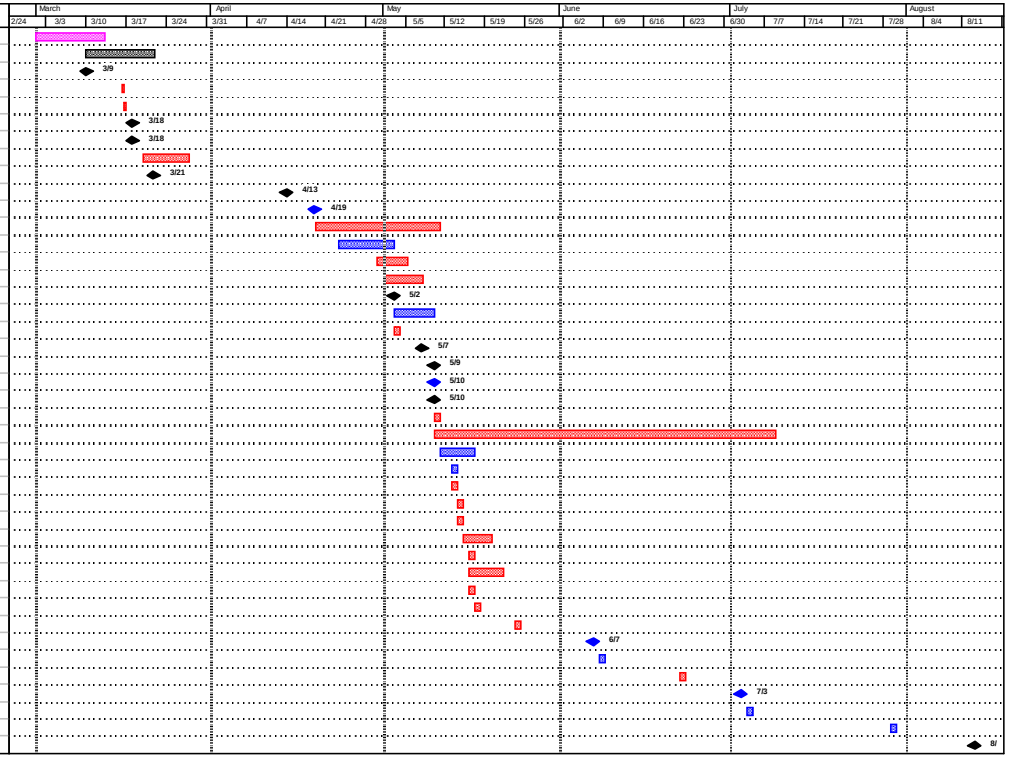
This is a bad mix of colors. Avoid bright colors on white. Unreadable!

Tip #4

Create graphics (such as tables and charts) appropriately.

Inappropriate Use of Tables

ID	Task Name	Duration
3	SM3B MISSION	12 days
2	BRIGHT EARTH AVOIDANCE (BEA)	12 days
1	HST RELEASE	0 days
41	NCS FILL PROCEDURE	2 hrs
40	8967V1 NCS01 START NCS CPL	0.3 days
6	NICMOS SAFED	0 days
8	8967 NCS01 NCS ACTIVATION & NICMOS COOLDOWN	0 days
14	8945 NCMOS10 - NICMOS COOLDOWN DARKS	8 days
42	BEA COMPLETE	0 days
5	NICMOS COOLDOWN COMPLETE	0 days
7	NICMOS TO OPERATE	0 days
12	8945 NCMOS10 - NICMOS COOLDOWN DARKS - PART II	22 days
35	8944 NICMOS01 FW TESTS	10 days
36	8974 NICMOS03 - FLATS & QE	5 days
13	NICMOS TEMP SET POINT ADJUST	7 days
39	FILTER WHEELS ENABLED	0 days
15	8977 NICMOS06/07 - FINE OPT ALIGN	7 days
37	8973 NICMOS02 FOM OPTICAL OPERATION TEST	1 day
10	NICMOS TEMP SET POINT TECH REVIEW	0 days
9	NICMOS TEMP SET POINT ESTABLISHED	0 days
11	8977 UPLINK ALIGN/TILT PARAMS	0 days
18	NICMOS GO SCIENCE ENAB (BASIC MODES)	0 days
28	9269 NICMOS18 - THERMAL BACKGROUND	1 day
29	9269 NICMOS18 - PARALLEL THERMAL B/G	60 days
4	NICMOS EROs	6 days
32	8981 NICMOS10 - APERTURE LOCATIONS	1 day
34	8976 NICMOS05 - TRANSFER FUNCTION TEST	1 day
23	8988 NICMOS17 - ASTROM'C PERS'T'CE MEAS	1 day
27	8975 NICMOS04 - DET NOISE, SHADING, & CRs	1 day
24	8991 NICMOS20 - GRISM WAVELENGTH CAL	5 days
22	8985 NICMOS14 - FLAT FIELDS	1 day
25	8986 NICMOS15 - PHOTOMETRY	6 days
26	8987 NICMOS16 - CR PERSISTENCE	1 day
33	8982 NICMOS11 - PLATE SCALE	1 day
16	8980 NICMOS09 - FOCUS MONITOR	1 day
20	PRD SIAF, GAIN TABLE, ROT MATRIX UPDATES	1 day
19	8983 NICMOS12 - MODE2 TRG ACQ	1 day
17	8980 NICMOS09B - FOCUS MONITOR	1 day
31	PDB SIAF U/D & PATCHABLE CONSTS (512)	1 day
30	8979 NICMOS08 - COR'GRAPHIC FOCUS	1 day
21	8984 NICMOS13 - CORONOGRAHIC PERFORMANCE	1 day
38	NICMOS C'R'G'PH'C SCI ENABLED	0 days

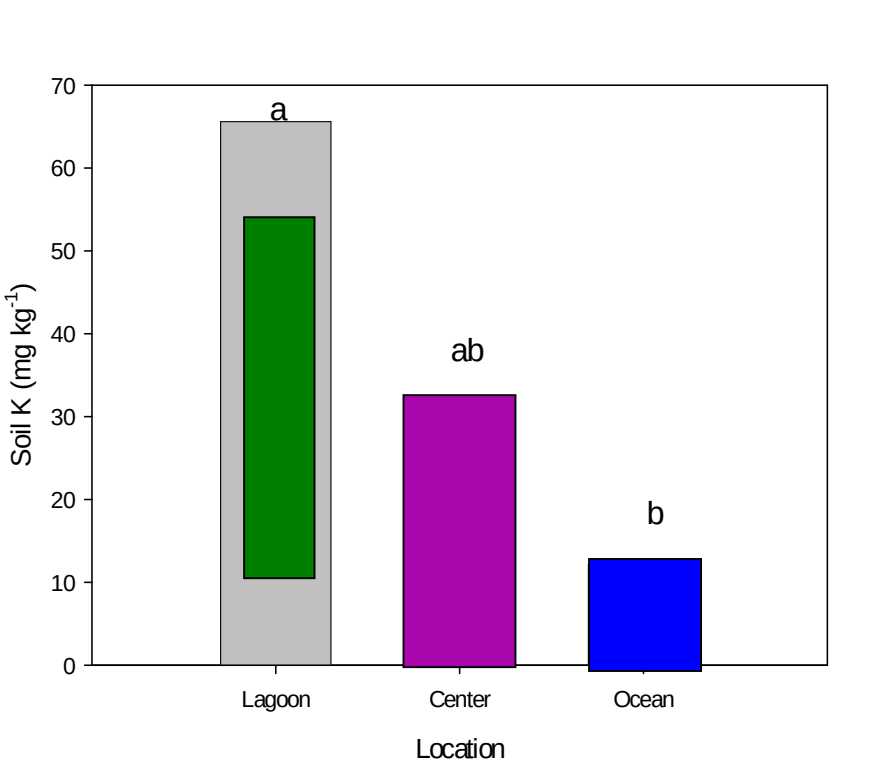


Appropriate Use of Tables and Figures

Emphasize key parts so that your points are stronger:

- Animate the graph or table elements
- Use drawing tools to highlight a portion of the table or graph
- Use strong contrasting color for drawing element
- Use callout box drawing tool

Nutrient concentration tends to decrease from lagoon to ocean side



Nutrient	Location	Concentration	Pr>F
N	Lagoon	0.66	0.27
	Center	0.53	
	Ocean	0.40	
P	Lag		0.20
	Ce		
	Ocean	15.7	
K	Lagoon	65.6	0.08
	Center	32.5	
	Ocean	12.2	
B	Lagoon	0.38	0.19
	Center	0.29	
	Ocean	0.28	

Very important

Tip #5

Remember that white space is our friend.

Slide Overkill

2. The data suggest that the high-level wells tap interconnected, though bounded, aquifers whose rate of water level decline is inversely proportional to its volume. Future well drilling for high-level potable sources must include accurate, well-designed aquifer tests that will aid in the determination of geologic boundaries to provide information on the geometry of the aquifer.
3. The data suggest that there may be more than geological mechanism that created the high-level aquifer.
4. The data suggest that there is a water level pattern observed in the high-level wells with Keopu being the “drain” for the ground-water flow system. The ground-water flux south of Keopu is to the north, and north of Keopu, the ground-water flow is to the south.
5. Some high-level wells do exhibit quasi-stable water levels, and show little variation over time. Use of long-term water level transducers in these wells should continue in conjunction with long-term water level transducers in those wells that show water level decline. Real time correlation between water levels in the wells with climatic conditions measured at Lanihau Rain Gage will provide better insight into the behavior of the potable high-level aquifers.

Washout Picture

1. Insert a Picture by choosing **Insert > Picture > From File**
2. Resize it to completely fill the frame
3. Keeping the picture selected, choose **Format > Picture > Image** Control
4. Under **Color**, choose **Washout**

Tip #6

Remember that ***you*** are the show --not the PowerPoint slideshow.

What makes the design of a .ppt presentation ineffective?

- Slides read word for word (60%)
- Text too small (51%)
- Full sentences used (48%)

Source: Bad PowerPoint Press Release 2003 survey
www.communicateusingtechnology.com

Tip #7

Do use some graphics in your slideshow. Nothing is more boring than an all-text slideshow. Choose them carefully, though.

JPG or JPEG

- This stands for “Joint Photographic Experts Group”
- This is the best file type to use if your image is a photo or a scan
- This file type allows for a full range of colors in a small file

Responsibilities of the Specialist

Scholarship

Synthesis

Leadership

GIF

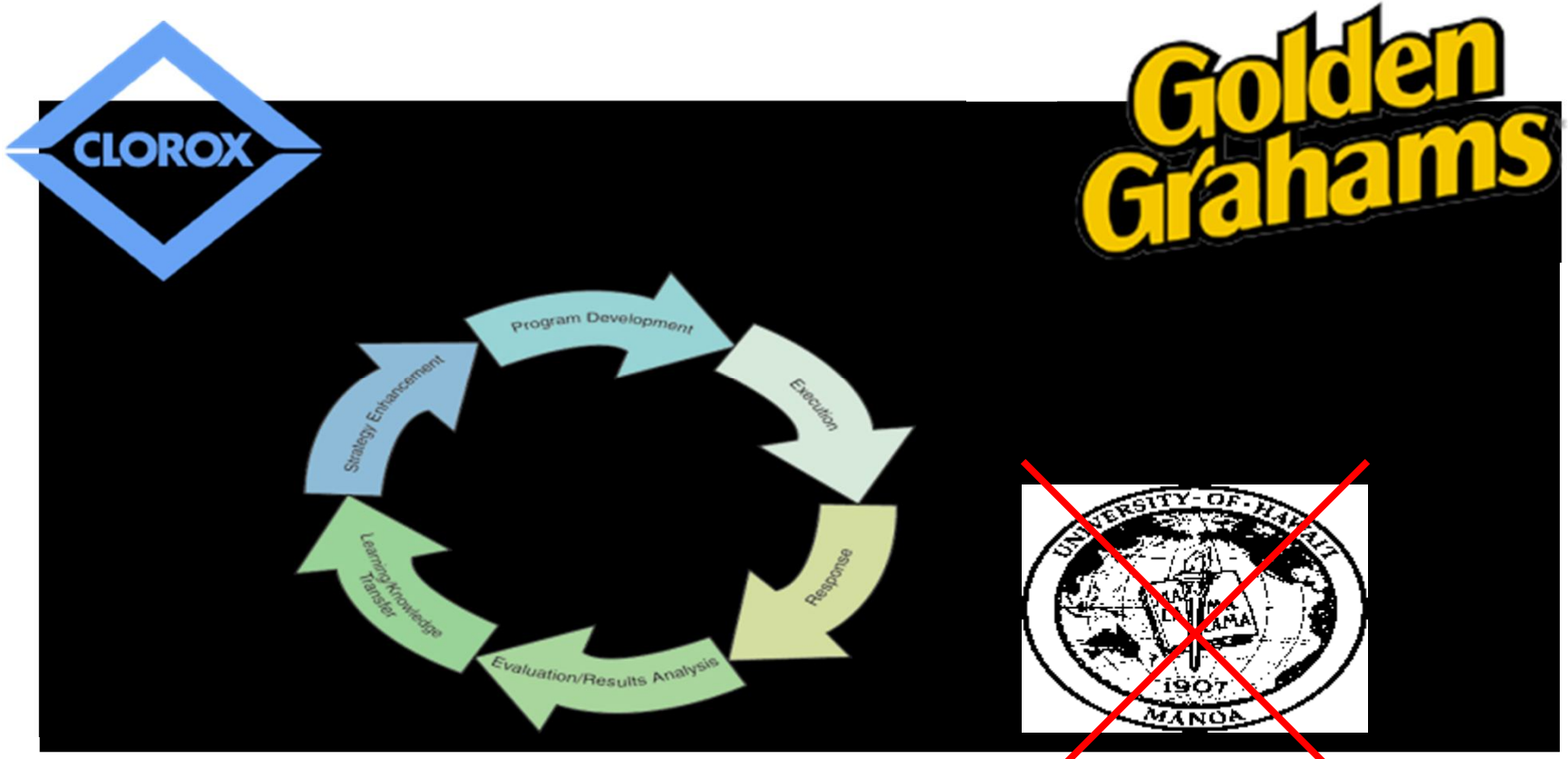
- This stands for “Graphical Interface Format”
- This is the best file type to use for logos, line art, or other images with limited colors
- GIF files only store colors that are actually used in the image

GIF Examples

TIF or TIFF

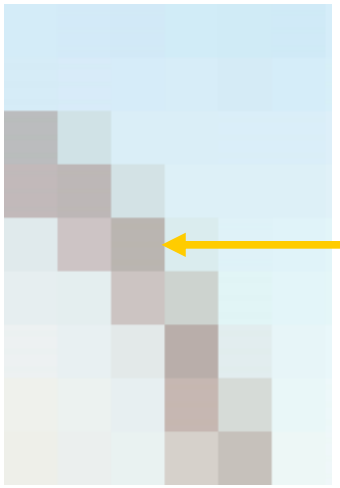
- This stands for “Tagged Image File Format.”
- This is the best file type to use if you need transparency in the image
- It is the most widely used file format in desktop publishing

TIFF Example



What About Resolution?

- “Resolution” = number of pixels per inch in a bitmap image
- The more dots per inch (dpi), the higher the resolution
- Higher resolution (“high res”) means a better quality image

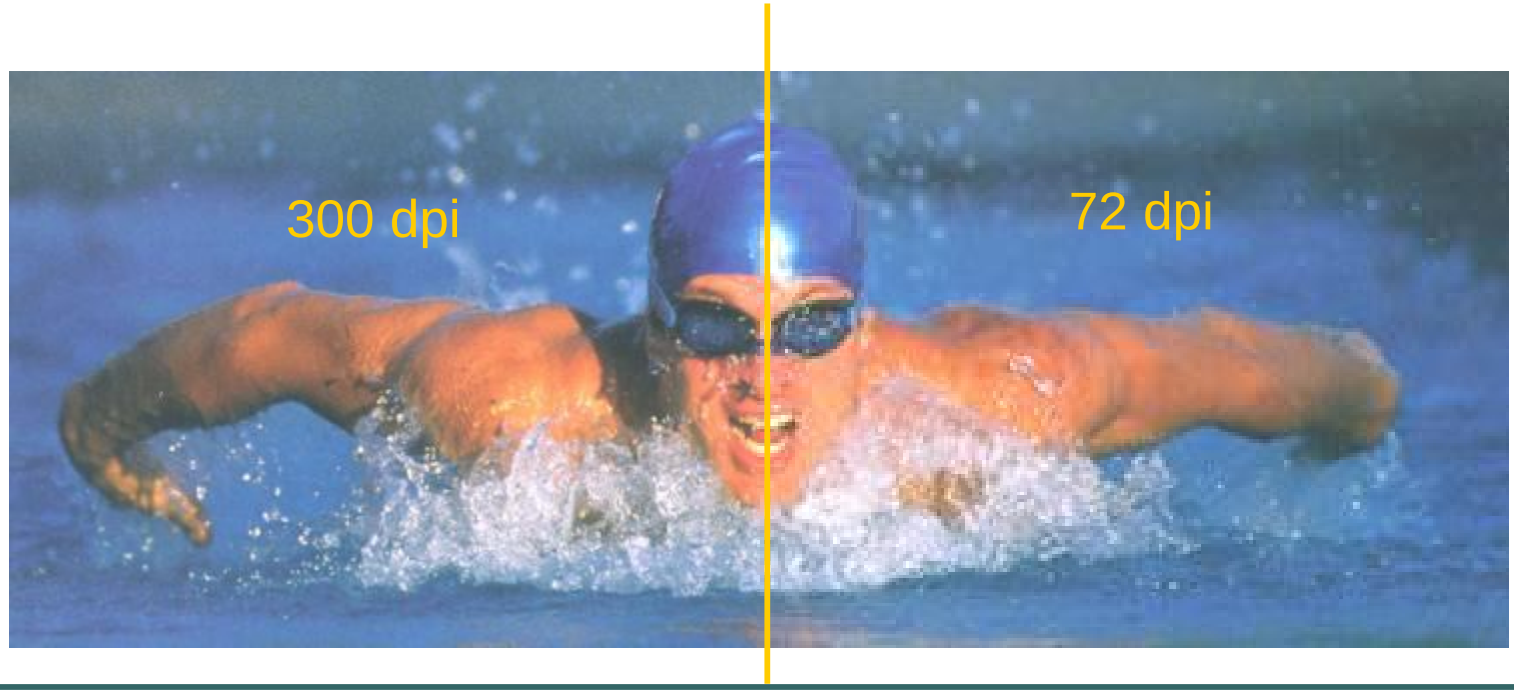


HOWEVER...

PowerPoint only displays at 92 dpi onscreen

What Resolution Should I Use?

Can you tell the difference on screen?
How about if you print it?



What Resolution Should I Use?

So what's the difference?

300 dpi
This image is 1.4 MB

72 dpi
This image is 240 K

Tip #8 On Screen vs. Print

ON SCREEN 92 dpi

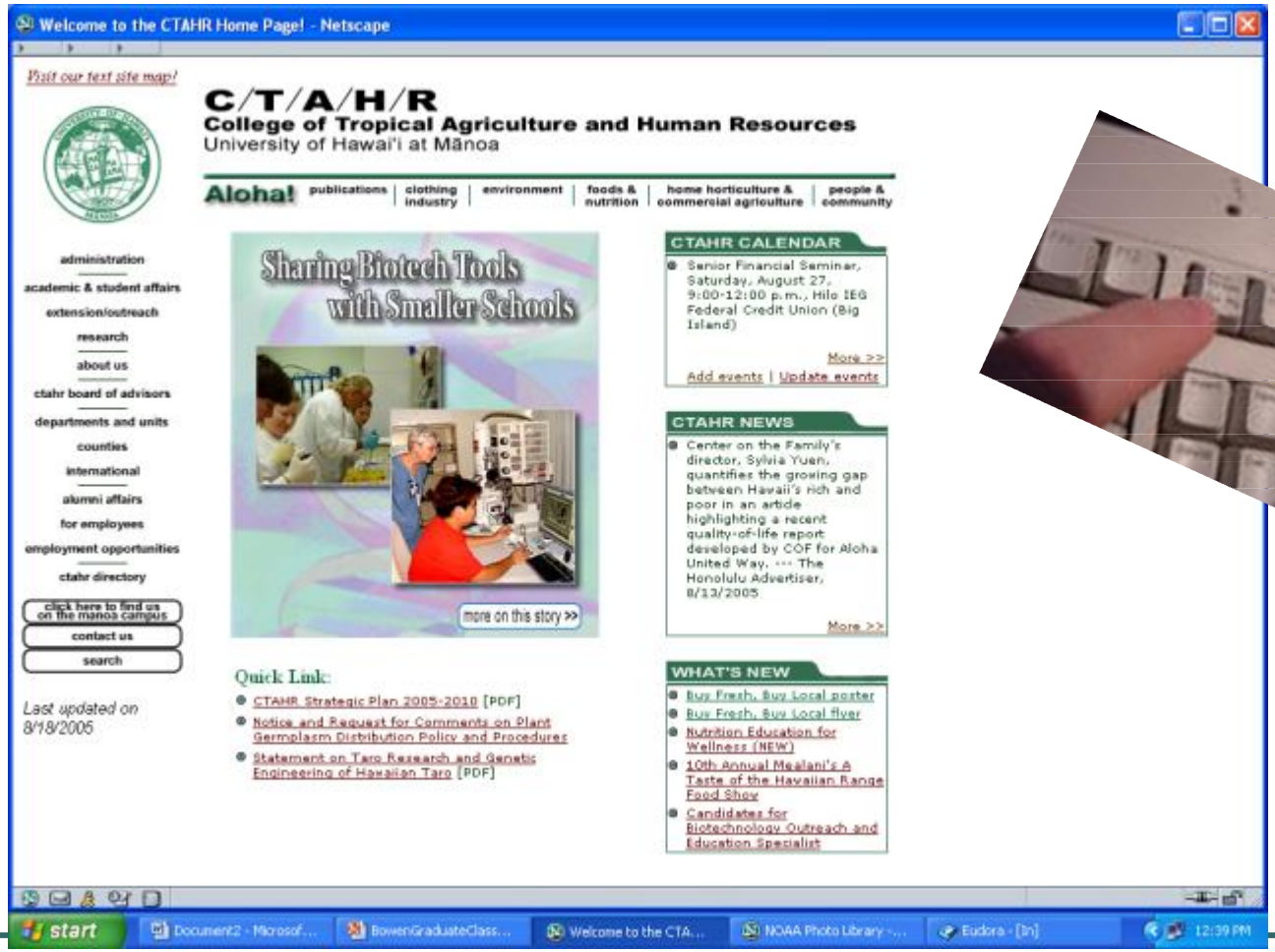
PRINTING 300 dpi

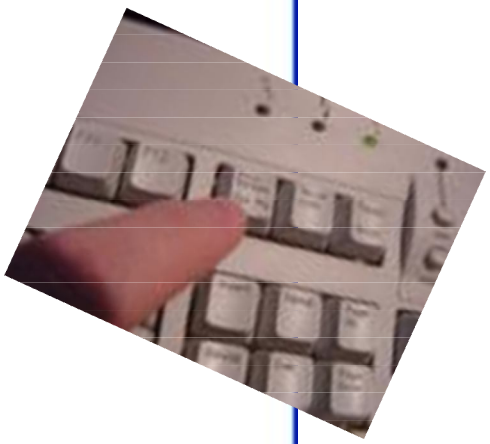
- If showing PowerPoint presentation on screen only, use images at 92 dpi
- If printing PowerPoint presentation, use images at 300 dpi
- High res images look better when printed but make presentation file big
- Never start with a low res image and try to increase it's res. Result will be a fuzzy picture

Tip#9 Make it Interactive

- Be able to jump to any slide
- Blank the screen
- Draw on the screen
- Screen Shots

Screen Shots





Tip #10 Package for CD

Package your presentations and all of the supporting files and run them from the CD.

Tip #1 Poster Presentations

- Construct the poster to include the title, the author(s), affiliation(s), and a description of the research, highlighting the major elements that are covered in the abstract.

Using computer simulation software to enhance student learning

Kent D. Kobayashi

Tropical Plant & Soil Sciences Department, University of Hawaii at Manoa

Introduction

How can the student-learning experience be enhanced using computer simulations?

This paper describes the use of several simulation programs to promote active, hands-on learning in a graduate course on crop modeling.

Methods

TPSS 601 Crop Modeling covers modeling crop growth and development. In the laboratory session, students discuss scientific papers.

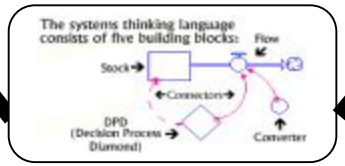
Software to do crop simulations—***CSMP, BASIC, and STELLA***—were introduced into the lab session. Using these software, students developed their own crop models for homework and lab assignments, and a term project.

```
A=INTGRL(IA,GR)
GR=RGR*A
INCON IA=1.
PARAMETER RGR=0.1
```

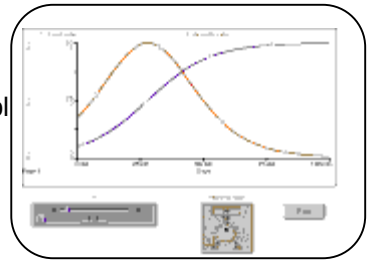
Example of lines of *CSMP* language code.

```
OPEN "I", #1, PS
INPUT #1, LAT
SM=.45*(24.3 - .264*LAT)
SD=SM*(.0186*LAT - .12)
```

Example of lines of *BASIC* language code.



STELLA relational diagram showing variables and their relationships.



STELLA graph showing simulation output. "Slider" and "knob" icons control values of the variable and parameter. "Run" button runs the model.

Results

- Enhanced understanding of crop physiology and relationship between crop and environment.
- Students had hands-on experience developing their own crop models.
- Enabled exploring "what if" scenarios.

Software	Advantages	Disadvantages
CSMP	• Simple coding. • Models already available.	• Crude graphs. • Need to run on mainframe computer.
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STELLA is being used this fall in my other TPSS courses—"Computer applications, high technology, and robotics in agriculture" and "Plant growth and development."

Conclusions

Use of computer simulation software in a crop modeling course enabled students to develop crop models, thereby enhancing active learning through hands-on experience.

Acknowledgements

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Tip #2

- Minimize detail and try to use simple, jargon-free statements.

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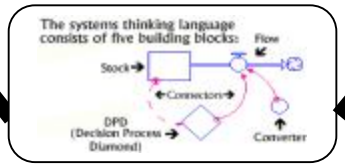

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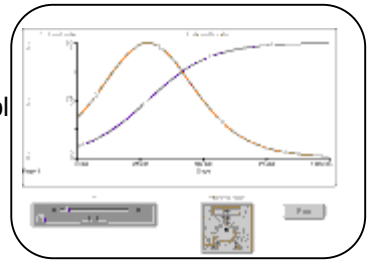

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Tip #3

- Remember that pictures, tables, and figures are amenable to poster display

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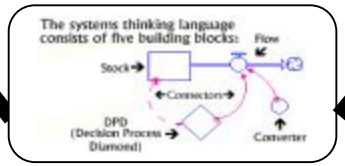

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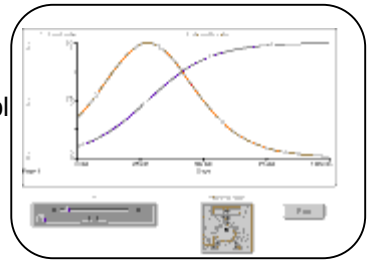

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Tip #4

- If you can, use color in your visuals.

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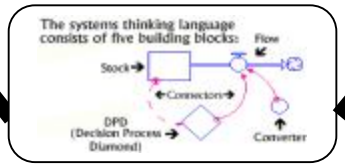

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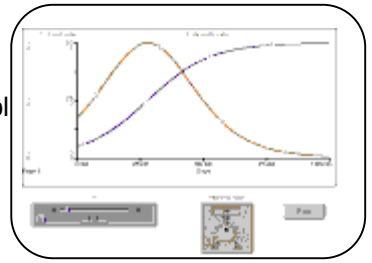

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Tip #5

- Make sure your fonts are consistent and are large enough to be read from a distance, i.e., do not simply pin up a set of typed pages--reserve these for your handout.

Tip #6

- Consider using a flow chart or some other method of providing the viewer with a guide to inspecting your display.

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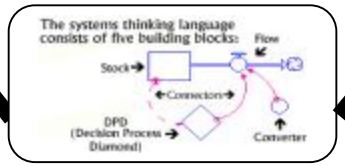

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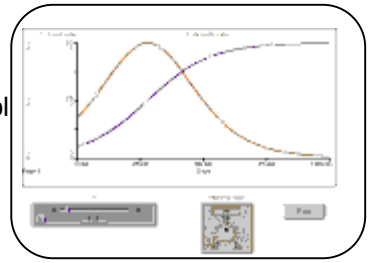

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Tip #7

- Don't overwhelm the viewer with excessive amounts of information; rather, construct a poster display that enhances conversation.

Final Word

"The purpose of using visual aids is to enhance your presentation, not upstage it."

Lenny Laskowski
PowerPointers.com