CCA220-Analisis dan Perancangan system Informasi

Dosen Pengampu :

5165-Kundang K Juman, Ir, MMSI

Prodi Teknik Informatika dan Sistem Informasi - Fakultas Ilmu Komputer

www.esaunggul.ac.id

Chapter 12
Designing Effective Input

Systems Analysis and Design
Kendall & Kendall
Sixth Edition

Major Topics

- Input design
- Form design
- Display design
- GUI screen design
- GUI controls
- Web design guidelines

Input Design Objectives

- The quality of system input determines the quality of system output.

- Well-designed input objectives:
  - Effectiveness.
  - Accuracy.
  - Ease of use.
  - Consistency.
  - Simplicity.
  - Attractiveness.

Form Design

Guidelines for good form design:

- Make forms easy to fill out.
- Ensure that forms meet the purpose for which they are designed.
- Design forms to assure accurate completion.
- Keep forms attractive.

Form Completion

To make forms easy to fill out, the following techniques are used:

- First, design forms with proper flow, from left to right and top to bottom.
- Second, group information logically using the seven sections of a form.
- Third, provide people with clear captions.
  - Captions tell the person completing the form what to put on a blank line, space, or box.

Seven Sections of a Form

The seven sections of a form are:
- Heading.
- Identification and access.
- Instructions.
- Body.
- Signature and verification.
- Totals.
- Comments.

Seven Sections of a Form

Figure 12.1 Seven sections found in well-designed forms.

Caption Types

Captions may be one of the following:

- Line caption, putting the caption on the same line or below the line.

- Boxed caption, providing a box for data instead of a line.

- Vertical check off, lining up choices or alternatives vertically.

- Horizontal check off, lining up choices or alternatives horizontally.

Caption Types

Figure 12.2 Major captioning alternatives.

Meeting the Intended Purpose

- Systems analysts may use different types of specialty forms for different purposes.
- Specialty forms can also mean forms prepared by a stationer.

Ensuring Accurate Completion

- To reduce error rates associated with data collection, forms should be designed to assure accurate completion.
- Design forms to make people do the right thing with the form.
- To encourage people to complete forms, systems analysts should keep forms attractive.

Attractive Forms

- To be more attractive, forms should look uncluttered, and elicit information in the expected order.

- Aesthetic forms or usage of different fonts and line weights within the same form can help make it more attractive.

Computer Form Design Software

- Numerous microcomputer form design software is available.

- Features of electronic form design software:
  - Ability to design paper, electronic, or Web- based forms.
  - Form design using templates.
  - Form design by cutting and pasting familiar shapes and objects.

Computer Form Design Software (Continued)

- Features of the electronic form design software
  - Facilitates completion through the use of software.
  - Permits customized menus, toolbars, keyboards, and macros.
  - Supports popular databases.
  - Enables broadcasting of electronic forms.
  - Permits sequential routing of forms.

Computer Form Design Software (Continued)

- Features of electronic form design software
  - Assists form tracking.
  - Encourages automatic delivery and processing.
  - Establishes security for electronic forms.

Controlling Business Forms

- Controlling forms include:
  - Making sure that each form in use fulfills its specific purpose.
  - Making sure that the specified purpose is integral to organizational functioning.
  - Preventing duplication of information collected and the forms that collect it.
  - Designing effective forms.

Controlling Business Forms (Continued)

- Controlling forms include:

- Deciding on reproduce forms in the most economical way
  - Establishing stock control and inventory procedures that make forms available when needed, at the lowest possible cost

Display Design Guidelines

Guidelines for good display design:

- First, keep the display simple.
- Second, keep the display presentation consistent.
- Third, facilitate user movement among display screens.
- Finally, create an attractive display.

Three Screen Sections

To keep the screen simple, it is divided into three sections:

- Heading.
- Body.
- Comments and instructions.

Display Design Concepts for Simplicity

- Displaying a few necessary basic commands using windows or hyperlinks is another way to keep screens simple.

- For the occasional user, only 50 percent of the screen should contain useful information.

Display Design Concepts for Simplicity (Continued)

- Simplistic design includes maximizing or minimizing the window size as needed.
- Use context-sensitive help and other pop-up menus.
- Consistency is achieved by displaying information in the same area or by grouping information logically.

Facilitating Movement

Guidelines for facilitating movement from one page to another:

- Clicking--the three clicks rule says that users should be able to get to the screens they need within three mouse or keyboard clicks.
- Scrolling--using arrows or PgDn keys.
- Using context-sensitive pop-up windows.
- Using onscreen dialogue .

Designing an Attractive Screen

To make the screen attractive use:

- Different thickness of separation lines between subcategories.
- Inverse video and blinking cursors.
- Different combinations of colors.
- Different type fonts.

Using Icons in Screen Design

- Icons are used in graphical screens to run programs and execute commands.

- Graphical User Interface (GUI) are used in conjunction with a mouse, keyboard, lightpen, or joystick for making selections and entering data.

Graphical User Interface (GUI) Controls

GUI controls or fields:

- Text boxes.
- Check boxes.
- Option or radio buttons.
- List and drop-down list boxes.
- Sliders and spin buttons.
- Image maps.
- Text area.
- Message boxes.

GUI Screen Example

Figure 12.10 The designer has many GUI components that allow flexibility in designing input screens for the Web or other software packages. This example is from Microsoft Access.

Text Boxes

- Text boxes should be large enough to accommodate all the field characters.
- Captions should be to the left of the text box.
- Character data should be left aligned within the box.
- Numeric data right aligned.

Check Boxes

- Check boxes are used for nonexclusive choices.

- Check box text or label is placed to the right of the check box.

- If there are more than 10 check boxes, group in a bordered box.

Option Buttons and Drop-down List Boxes

- Option or radio buttons are used for exclusive choices.

- Often they are placed in a rectangle called an option group.

- List and drop-down list boxes are used to select one choice out of many.

Sliders, Spin Buttons, and Image Maps

- Sliders and spin buttons are used to change data that have a continuous range of values.

- Image maps are used to select values within an image.
  - The x and y coordinates are sent to the program.

Slider and spin button example

Figure 12.11 Sliders and spin buttons are two additional GUI components the analyst can use to design input screens.
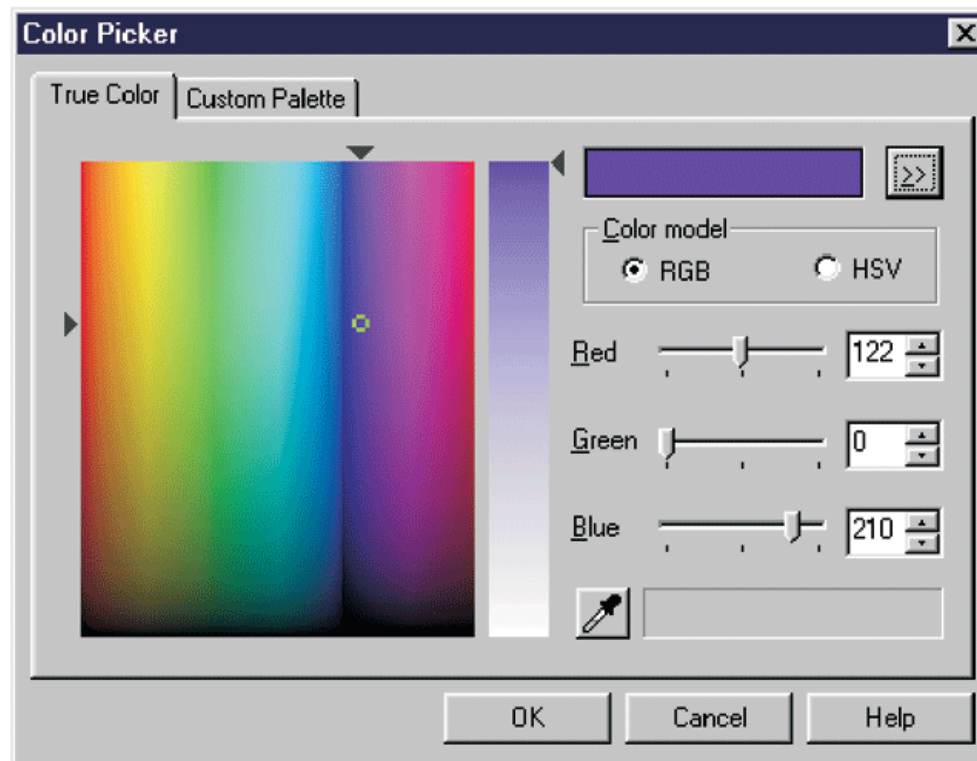
Text Area

- A text area is used for entering a larger amount of text.
- These areas may have text that wraps when the text reaches the end of the box.
- There are two ways to handle the text:
  - Hard return is used to force new lines.
  - Use word wrap within the text area.

© 2005 Pearson Prentice Hall

Message Boxes and Command Buttons

- Message boxes are used to display warning and other messages in a rectangular window.
- Command buttons perform an action.

Tab Control Dialogue Boxes

- Tab control dialog boxes help organize GUI features (controls) for users.

- Each tab dialog box should have three basic buttons:
  - OK.
  - Cancel.
  - Help.

Web Page Dialogue Boxes

- A new type of dialogue box has the look and feel of a Web page.

- Buttons are called places and are hyperlinked to items a user would wish to access.

Color

- The five most legible foreground/background color combinations for display monitors are:
  - Black on yellow.
  - Green on white.
  - Blue on white.
  - White on blue.
  - Yellow on black.

Skins

Skins are graphical overlays that allow customers to change the appearance of a Web site depending on their preferences for a particular kind of image.

Internet and Intranet Design Guidelines

Guidelines for creating intranet and Internet input pages:

- Provide clear instructions.
- Use a logical entry sequence for fill-in forms.
- Use a variety of text boxes, push buttons, radio buttons, drop-down lists, and other GUI features.

Internet and Intranet Design Guidelines

Guidelines for creating intranet and Internet input pages (continued):

- Provide a scrolling text box if you are uncertain how much text will be entered.

- Include two basic buttons: Submit and Clear.

- If the form is lengthy, divide it into several simpler forms on separate pages.

Internet and Intranet Design Guidelines

Guidelines for creating intranet and Internet input pages (continued):

- Create a feedback screen that lists error messages if a form has not correctly been filled out

Ecommerce Applications

- Ecommerce applications involve more than just good Web site design.

- Customers need to be confident of the site, including privacy and security.