

Direct manipulation is a style of interaction in graphical systems that makes the user feel like they are directly interacting with objects on the screen in a way that mirrors real-world actions. Here are key characteristics:

1. Extension of the Real World:

- The system mirrors the user's real-world environment, assuming familiarity with objects and actions.
- It replicates these elements on the screen, allowing users to access and modify them, including windows.
- Users can work in a familiar environment, focusing on data rather than navigating complex tools and applications.
- The system hides the unfamiliar physical organization, preventing it from being a distraction.

2. Continuous Visibility:

- Objects and actions are continuously visible, similar to items on a physical desktop.
- Clear labels and obvious reminders replace complex commands, making actions more intuitive.
- Cursor actions and motion mimic natural and physically obvious movements.

3. Rapid and Incremental Actions with Visible Results:

- Results of actions are immediately displayed on the screen.
- Auditory feedback may complement the visual cues.
- Users can quickly see the impact of their actions, and tasks evolve continuously and effortlessly.

4. Easily Reversible Incremental Actions:

- Actions can be easily undone if found to be incorrect or undesired.
- This reversibility feature provides a safety net, allowing users to experiment

without fear of irreversible consequences.

Related posts:

1. What do you mean by user interface ? Define user interface design. Why user interface is important ?
2. Describe the importance of good design.
3. What are the benefits of good design ?
4. Write a short note on history of screen design.
5. What do you mean by graphical user interface ?
6. What is popularity of graphics ?
7. What is graphical system ? Write down its advantages and disadvantages.
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11. Explain web user interface.
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14. Describe the principles of user interface.
15. Describe the principles established the foundation for graphical interfaces.
16. Describe the design goals in creating user interface.
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18. Explain the five commandments for designing user interface
19. Discuss human computer interaction.
20. How a person interact with computer.
21. What are the factors that make system difficult to use ?
22. What are the psychological responses to poor design ?

23. What are the physical reactions to poor design ?
24. Explain the important human characteristics.
25. Describe the following term with respect to human characteristics in design :
26. Describe human consideration in design.
27. What are the characteristics of mandatory use in user's task for design ?
28. Give the characteristics of discretionary user
29. Explain human interaction speed.
30. What are the methods for gaining an understanding of users ?
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32. Designing a website, what kinds of interview questions are appropriate for asking users ?
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34. Explain card sorting for websites.
35. Describe the steps for creating electronic survey.
36. Determine the basic business functions.
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38. Describe the goals in screen design.
39. What is meant by screen and define its purpose.
40. How we can organize screen elements clearly and meaningfully ?
41. Describe ordering of screen data and content.
42. What do you mean screen navigation and flow ?
43. What do you understand by visually pleasing composition ?
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46. Discuss amount of information.
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52. How information is presented simply and meaningfully ?
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55. What are the types of statistical graphics ?
56. Discuss intranet and extranet design guidelines.
57. Write short note on statistical graphics
58. Explain the components of statistical graphics.
59. Discuss technical consideration in interface design for : i. Graphical system ii. Web system iii. Other web consideration
60. Discuss windows and its characteristics.
61. What are the components of window ?
62. Describe the window presentation style.
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74. Describe the various operable controls.
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78. What are the message box guidelines recommended by Microsoft ?
79. Discuss message box controls.
80. Discuss instructional message in detail.
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83. Describe icon animation and audition.
84. Describe multimedia in detail.
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86. What are the uses of color ?
87. What are the problems related to color ?
88. How to choose color ?
89. What is software tool ? What are the commonly used tools in human computer interface ?
90. Explain specification method.
91. Describe interface building tools in detail.
92. What are the features of interface building tools ?
93. Explain interaction devices.
94. Describe keyboard and function keys.
95. Describe pointing devices and types of interaction tasks useful for pointing devices.
96. What are the types of pointing devices ?
97. Explain speech recognitions.
98. Discuss speech digitization and generation.
99. Describe image and video displays.

Describe the concept of direct manipulation

100. What are the characteristics of video display devices ?
101. Write a short note on drivers.