

Some of the Features of Creating a User Interface

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Interactive software with a distinct user interface is now possible because to developments in computer hardware. One of the current challenges is the creation of interactive interfaces for non-professional users to use in complex software applications. In recent years, basic ideas for designing such user interfaces have emerged, as have different methods for doing so.

This paper discusses how to organize user-friendly graphical interface elements and convenience using recent programming methods.

Let's start by defining what a user interface is. Researchers have also given a number of recommendations in this area. We will concentrate on this price in accordance with our study methodology. A user interface is a software and hardware combination that allows users to interact with computers. Communication is the foundation of such collaboration. Communication in this example refers to the real-time exchange of information between a person and a machine with the goal of solving a specific problem together: information sharing and coordination of activities.

When addressing interface types, contrasts are made between procedural and object-oriented approaches in interface development, analogous to procedural and object-oriented programming approaches (Figure 1).

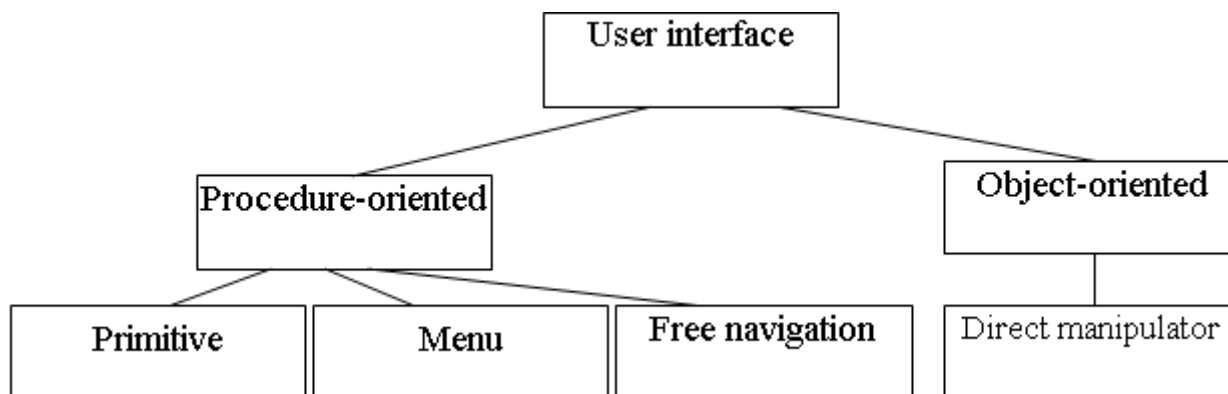


Fig 1. Interface types

User interface development involves the basic steps of software development:

- problem statement - defining the type of interface and its requirements;
- requirements analysis and specification-interface usage scenario and user model definition;
- design of dialogues and their implementation in the form of input-output;
- Implementation - programming and testing of interface processes.

It is vital to provide future computer science teachers with the knowledge, abilities, and competences necessary to build a user interface. The student learns personal traits such as logical thinking and algorithm thinking while tackling such challenges. The following results have been accomplished by organizing graphical user interface elements and conveniences using modern programming technologies:

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First, interactive interfaces are designed and developed for users to use in the task at hand;

Second, conclusions are drawn on the basic concepts of creating user interfaces and the methodology for creating them;

Third, knowledge and practical skills on the types of user interfaces and the stages of their development will be strengthened;

Fourth, the integration of sciences expands perceptions of the need to take into account the achievements of other sciences in the design of the interface, such as psychology, which studies the psychophysiological characteristics of man.

It should be noted that the proposal to create a user interface for the following issues in practical training will lead to the effectiveness of knowledge, skills and competencies in this area:

- ✓ visualize the process of drawing a function graph;
- ✓ visualization of operations on matrices;
- ✓ demonstrate the steps of solving algebraic equations;
- ✓ Visualize the steps for solving a system of linear equations.

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