

Step 5: Platform Capabilities and Constraints

Purpose of this step:

The purpose of this step is to define the user interface-related capabilities and constraints of the hardware and software platform for the application.

Overview:

- The hardware and software platform places a whole set of constraints on user interface design options.
- Some types of interface design are technically possible, but not justifiable given development and maintenance costs.
- As hardware evolves, new user interface capabilities may be introduced, such as better response times and greater modem speed and bandwidth.

Practical application of these principles to your site:

- 1) **Identify all relevant aspects of all hardware and software platforms:** Interview project management and technical staff to identify platforms. Also identify workstations and other input devices.
- 2) **Review any platform documentation:** If any documentation exists, read it to gain a basic understanding of user interface-related platform constraints and capabilities.
- 3) **Interview technical staff:** For more clarification, interview appropriate technical staff and ask questions about the platforms.
- 4) **Document Platform Capabilities and Constraints:** This is especially important if multiple designers are assigned to the project and not all of them are familiar with the platform, and/or there are multiple platforms with different capabilities and constraints. The following are examples of some capabilities and constraints:
 - Input devices (keyboard, mouse, joystick, trackball, touch screen, etc.)

- System Speed (in MHz)
- Modem speed
- Special effects (3-D, reverse video, animation, sound, etc.)

Examples: See examples of this step in the “Examples” folder.