**Heuristic Evalualtion - A System Checklist**

# 1. Visibility of System Status

### The system should always keep user informed about what is going on, through appropriate feedback within reasonable time.

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| **#** | **Review Checklist** | **Yes No N/A** | **Comments** |
| 1.1 | Does every display begin with a title or header that describes screen contents? | O O O |  |
| 1.2 | Is there a consistent icon design scheme and stylistic treatment across the system? | O O O |  |
| 1.3 | Is a single, selected icon clearly visible when surrounded by unselected icons? | O O O |  |
| 1.4 | Do menu instructions, prompts, and error messages appear in the same place(s) on each menu? | O O O |  |
| 1.5 | In multipage data entry screens, is each page labeled to show its relation to others? | O O O |  |
| 1.6 | Do GUI menus make obvious which item has been selected? | O O O |  |

# 2. Match Between System and the Real World

### The system should speak the user’s language, with words, phrases and concepts familiar to the user, rather than system-oriented terms. Follow real-world conventions, making information appear in a natural and logical order.

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| **#** | **Review Checklist** | **Yes No N/A** | **Comments** |
| 2.1 | Are icons concrete and familiar? | O O O |  |
| 2.2 | Are menu choices ordered in the most logical way, given the user, the item names, and the task variables? | O O O |  |
| 2.3 | If there is a natural sequence to menu choices, has it been used? | O O O |  |
| 2.4 | Do related and interdependent fields appear on the same screen? | O O O |  |
| 2.5 | If shape is used as a visual cue, does it match cultural conventions? | O O O |  |
| 2.6 | Do the selected colors correspond to common expectations about color codes? | O O O |  |
| 2.7 | When prompts imply a necessary action, are the words in the message consistent with that action? | O O O |  |
| 2.8 | Do keystroke references in prompts match actual key names? | O O O |  |
| 2.9 | On data entry screens, are tasks described in terminology familiar to users? | O O O |  |
| 2.10 | Are field-level prompts provided for data entry screens? |  |  |
| 2.11 | For question and answer interfaces, are questions stated in clear, simple language? | O O O |  |

# 3. User Control and Freedom

### Users should be free to select and sequence tasks (when appropriate), rather than having the system do this for them. Users often choose system functions by mistake and will need a clearly marked “emergency exit” to leave the unwanted state without having to go through an extended dialogue. Users should make their own decisions (with clear information) regarding the costs of exiting current work. The system should support undo and redo.

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| **#** | **Review Checklist** | **Yes No N/A** | **Comments** |
| 3.1 | If setting up windows is a low-frequency task, is it particularly easy to remember? | O O O |  |
| 3.2 | In systems that use overlapping windows, is it easy for users to rearrange windows on the screen? | O O O |  |
| 3.3 | In systems that use overlapping windows, is it easy for users to switch between windows? | O O O |  |
| 3.4 | When a user's task is complete, does the system wait for a signal from the user before processing? | O O O |  |
| 3.5 | Can users type-ahead in a system with many nested menus? | O O O |  |
| 3.6 | Are users prompted to confirm commands that have drastic, destructive consequences? | O O O |  |
| 3.7 | Is there an "undo" function at the level of a single action, a data entry, and a complete group of actions? | O O O |  |
| 3.8 | If users can go back to a previous menu, can they change their earlier menu choice? | O O O |  |
| 3.9 | Can users move forward and backward between fields or dialog box options? | O O O |  |
| 3.10 | If the system has multipage data entry screens, can users move backward and forward among all the pages in the set? | O O O |  |
| 3.11 | If the system uses a question and answer interface, can users go back to previous questions or skip forward to later questions? | O O O |  |
| 3.12 | Do function keys that can cause serious consequences have an undo feature? | O O O |  |
| 3.13 | Can users easily reverse their actions? | O O O |  |
| 3.14 | If the system allows users to reverse their actions, is there a retracing mechanism to allow for multiple undos? | O O O |  |
| 3.15 | Can users set their own system, session, file, and screen defaults? | O O O |  |

# 4. Consistency and Standards

### Users should not have to wonder whether different words, situations, or actions mean the same thing. Follow platform conventions.

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| **#** | **Review Checklist** | **Yes No N/A** | **Comments** |
| 4.1 | Are user actions named consistently across all prompts in the system? | O O O |  |
| 4.2 | Are system objects named consistently across all prompts in the system? | O O O |  |
| 4.3 | Do field-level prompts provide more information than a restatement of the field name? | O O O |  |
| 4.4 | For question and answer interfaces, are the valid inputs for a question listed? | O O O |  |
| 4.5 | Are menu choice names consistent, both within each menu and across the system, in grammatical style and terminology? | O O O |  |
| 4.6 | Does the structure of menu choice names match their corresponding menu titles? | O O O |  |
| 4.7 | Are commands used the same way, and do they mean the same thing, in all parts of the system? | O O O |  |
| 4.8 | Does the command language have a consistent, natural, and mnemonic syntax? | O O O |  |
| 4.9 | Do abbreviations follow a simple primary rule and, if necessary, a simple secondary rule for abbreviations that otherwise would be duplicates? | O O O |  |
| 4.10 | Are user actions named consistently across all prompts in the system? | O O O |  |

# 5. Help Users Recognize, Diagnose, and Recover From Errors

### Error messages should be expressed in plain language(NO CODES).

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| **#** | **Review Checklist** | **Yes No N/A** | **Comments** |
| 5.1 | Do error messages inform the user of the error's severity? | O O O |  |
| 5.2 | Do error messages suggest the cause of the problem? | O O O |  |
| 5.3 | Do error messages provide appropriate semantic information? | O O O |  |
| 5.4 | Do error messages provide appropriate syntactic information? | O O O |  |
| 5.5 | Do error messages indicate what action the user needs to take to correct the error? | O O O |  |
| 5.6 | Do error messages inform the user of the error's severity? | O O O |  |
| 5.7 | Do error messages suggest the cause of the problem? | O O O |  |
| 5.8 | Do error messages avoid the use of exclamation points? | O O O |  |
| 5.9 | Do all error messages in the system use consistent grammatical style, form, terminology, and abbreviations? | O O O |  |
| 5.10 | Do messages place users in control of the system? | O O O |  |

# 6. Error Prevention

### Even better than good error messages is a careful design which prevents a problem from occurring in the first place.

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| **#** | **Review Checklist** | **Yes No N/A** | **Comments** |
| 6.1 | If the database includes groups of data, can users enter more than one group on a single screen? | O O O |  |
| 6.2 | Have dots or underscores been used to indicate field length? | O O O |  |
| 6.3 | Is the menu choice name on a higher-level menu used as the menu title of the lower-level menu? | O O O |  |
| 6.4 | Are menu choices logical, distinctive, and mutually exclusive? | O O O |  |
| 6.5 | Are data inputs case-blind whenever possible? | O O O |  |
| 6.6 | If the system displays multiple windows, is navigation between windows simple and visible? | O O O |  |
| 6.7 | Are the function keys that can cause the most serious consequences in hard-to-reach positions? | O O O |  |
| 6.8 | Are the function keys that can cause the most serious consequences located far away from low-consequence and high-use keys? | O O O |  |
| 6.9 | Has the use of qualifier keys been minimized? | O O O |  |
| 6.10 | If the system uses qualifier keys, are they used consistently throughout the system? | O O O |  |
| 6.11 | Does the system prevent users from making errors whenever possible? | O O O |  |
| 6.12 | Does the system warn users if they are about to make a potentially serious error? | O O O |  |
| 6.13 | Does the system intelligently interpret variations in user commands? | O O O |  |
| 6.14 | Do data entry screens and dialog boxes indicate the number of character spaces available in a field? | O O O |  |
| 6.15 | Do fields in data entry screens and dialog boxes contain default values when appropriate? | O O O |  |

# 7. Recognition Rather Than Recall

### Make objects, actions, and options visible. The user should not have to remember information from one part of the dialogue to another. Instructions for use of the system should be visible or easily retrievable whenever appropriate.

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| **#** | **Review Checklist** | **Yes No N/A** | **Comments** |
| 7.1 | For question and answer interfaces, are visual cues and white space used to distinguish questions, prompts, instructions, and user input? | O O O |  |
| 7.2 | Does the data display start in the upper-left corner of the screen? | O O O |  |
| 7.3 | Are multiword field labels placed horizontally (not stacked vertically)? | O O O |  |
| 7.4 | Are all data a user needs on display at each step in a transaction sequence? | O O O |  |
| 7.5 | Are prompts, cues, and messages placed where the eye is likely to be looking on the screen? | O O O |  |

# 8. Fexibility and Minimalist Design

### Accelerators-unseen by the novice user-may often speed up the interaction for the expert user such that the system can cater to both inexperienced and experienced users. Allow users to tailor frequent actions. Provide alternative means of access and operation for users who differ from the “average” user (e.g., physical or cognitive ability, culture, language, etc.)

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| **#** | **Review Checklist** | **Yes No N/A** | **Comments** |
| 8.1 | If the system supports both novice and expert users, are multiple levels of error message detail available? | O O O |  |
| 8.2 | Does the system allow novices to use a keyword grammar and experts to use a positional grammar? | O O O |  |
| 8.3 | Can users define their own synonyms for commands? | O O O |  |
| 8.4 | Does the system allow novice users to enter the simplest, most common form of each command, and allow expert users to add parameters? | O O O |  |

# 9. Aesthetic and Minimalist Design

### Dialogues should not contain information which is irrelevant or rarely needed. Every extra unit of information in a dialogue competes with the relevant units of information and diminishes their relative visibility.

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| **#** | **Review Checklist** | **Yes No N/A** | **Comments** |
| 9.1 | Is only (and all) information essential to decision making displayed on the screen? | O O O |  |
| 9.2 | Are all icons in a set visually and conceptually distinct? | O O O |  |
| 9.3 | Have large objects, bold lines, and simple areas been used to distinguish icons? | O O O |  |
| 9.4 | Does each icon stand out from its background? | O O O |  |
| 9.5 | If the system uses a standard GUI interface where menu sequence has already been specified, do menus adhere to the specification whenever possible? | O O O |  |
| 9.6 | Are meaningful groups of items separated by white space? | O O O |  |
| 9.7 | Does each data entry screen have a short, simple, clear, distinctive title? | O O O |  |
| 9.8 | Are field labels brief, familiar, and descriptive? | O O O |  |
| 9.9 | Are prompts expressed in the affirmative, and do they use the active voice? | O O O |  |

# 10. Help and Documentation

### Even though it is better if the system can be used without documentation, it may be necessary to provide help and documentation. Any such information should be easy to search, focused on the user’s task, list concrete steps to be carried out, and not be too large.

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| **#** | **Review Checklist** | **Yes No N/A** | **Comments** |
| 10.1 | If users are working from hard copy, are the parts of the hard copy that go on-line marked? | O O O |  |
| 10.2 | Are on-line instructions visually distinct? | O O O |  |
| 10.3 | Do the instructions follow the sequence of user actions? | O O O |  |
| 10.4 | If menu choices are ambiguous, does the system provide additional explanatory information when an item is selected? | O O O |  |
| 10.5 | Are data entry screens and dialog boxes supported by navigation and completion instructions? | O O O |  |
| 10.6 | If menu items are ambiguous, does the system provide additional explanatory information when an item is selected? | O O O |  |

# 12. Pleasurable and Respectful Interaction with the User

### The user’s interactions with the system should enhance the quality of her or his work-life. The user should be treated with respect. The design should be aesthetically pleasing- with artistic as well as functional value.

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| **#** | **Review Checklist** | **Yes No N/A** | **Comments** |
| 12.1 | Is each individual icon a harmonious member of a family of icons? | O O O |  |
| 12.2 | Has excessive detail in icon design been avoided? | O O O |  |
| 12.3 | Has color been used with discretion? | O O O |  |
| 12.4 | Has the amount of required window housekeeping been kept to a minimum? | O O O |  |
| 12.5 | If users are working from hard copy, does the screen layout match the paper form? | O O O |  |
| 12.6 | Has color been used specifically to draw attention, communicate organization, indicate status changes, and establish relationships? | O O O |  |
| 12.7 | Can users turn off automatic color coding if necessary? | O O O |  |
| 12.8 | Are typing requirements minimal for question and answer interfaces? | O O O |  |
| 12.9 | Do the selected input device(s) match environmental constraints? | O O O |  |
| 12.13 | If the system uses multiple input devices, has hand and eye movement between input devices been minimized? | O O O |  |
| 12.14 | If the system supports graphical tasks, has an alternative pointing device been provided? | O O O |  |
| 12.15 | Is the numeric keypad located to the right of the alpha key area? | O O O |  |
| 12.16 | Are the most frequently used function keys in the most accessible positions? | O O O |  |
| 12.17 | Does the system complete unambiguous partial input on a data entry field? | O O O |  |

# 13. Privacy

### The system should help the user to protect personal or private information- belonging to the user or the his/her clients.

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| **#** | **Review Checklist** | **Yes No N/A** | **Comments** |
| 13.1 | Are protected areas completely inaccessible? | O O O |  |
| 13.2 | Can protected or confidential areas be accessed with certain passwords. | O O O |  |
| 13.3 | Is this feature effective and successful. | O O O |  |

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