

Ergonomic Guidelines, Steps for design Users Interface.

1 Know your users.

Create personas

Personas help you identify major user groups of your Web site.

You select the characteristics that are most representative of those groups and turn them into a persona.

Using personas helps the team focus on the users' goals and needs.

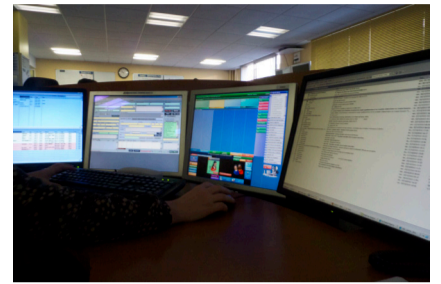


"Can you get me that staff analysis by Tuesday?"

Matthew Johnson, Program Staff Director, USDA

Matthew is 51-year-old married father of three children and one grandchild. He has a Ph.D. in Agricultural Economics who spends his work time requesting and reviewing research reports, preparing memos and briefs for agency heads, and supervising staff efforts in food safety and inspection. He is focused, goal-oriented within a strong leadership role. One of his concerns is maintaining quality across all output of programs. He uses email extensively.

Analyse users' work in situ is the best way to understand them.



2 Structuring the application.

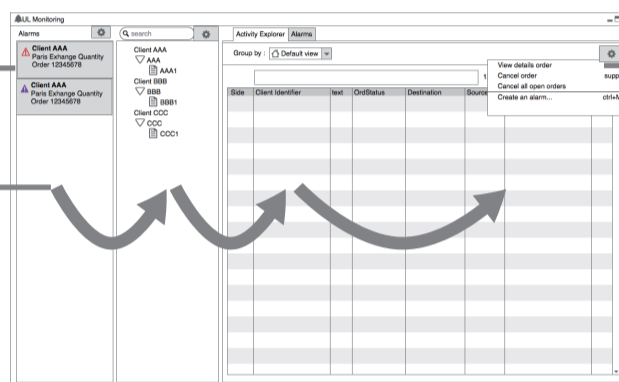
From global to details

In an application, the **primary windows** present the object of the activity while the **secondary windows** offer a richer dialogue, or properties on the elements presented in a primary window.

The **menus** present actions and property on selected objects.

Object of the activity : supervision alarms

Organise the windows in terms of task : select an alarm, a client, an order, an action.



The menu is a special button or in a classic menu bar.

Sketching your application !

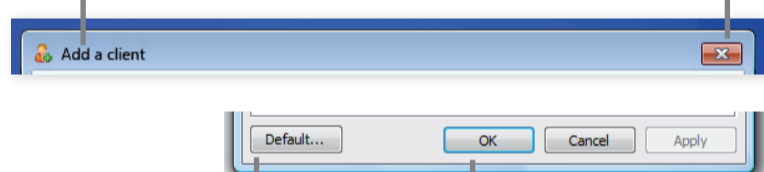
With paper and pencils, power-point, or other softwares, as you want but sketching.

Change something in the user interface : 1 day in design, 10 days in development, 100 days in productions.

3 Designing secondary windows.

The title resume the wording of the control.

Only one box for close.



At bottom left, secondary control.

At right, in this order, «OK» «Cancel» «Apply». «OK» may be replaced by a more precise term as the verb of the control («Add», «Print»)

A **check-list** for secondary windows :

- No horizontal scroll.
- Not more than 2 level of secondary windows. 3 level max with primary windows.
- The user should not have to resize the windows.
- By default, the secondary windows are not modal.
- Margin with the edge is 11 pixels and 7 pixels between two related controls.

There is 4 types of messages windows :

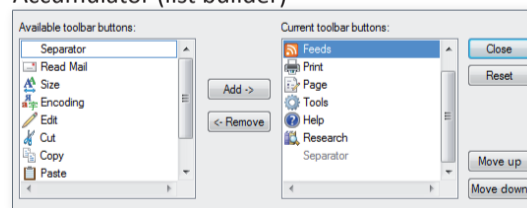
- **Error message** ; blocking problem.
- **Warning message** ; potential problem.
- **Information message** ; Question or information but no threat.
- **Notification message** ; inform of an event.



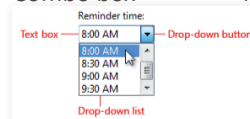
4 Choosing good controls and combine them.

Field unknow		Type de selection	
		Mutually exclusive	No mutually exclusive
Field unknow		Texte area Name: Jonathan	Accumulator
Field know	Values < 7	Radio button Select an alignment: Align left Align center Align right	Checkbox Use large icons Show shadows under menus Show window contents while dragging
	Values < 7	Drop-down lists Colors Highest (2 bits)	Accumulator or Multi-selection list
Field mixed	Values < 7	radio buttons, with a free field	Check box, with a free field
	Values < 7	Combo box	Accumulator

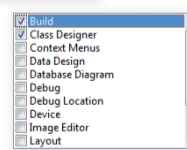
Accumulator (list builder)



Combo box



Multi-selection list



An exemple, for activate/deactivate a group box :

- Formatting
 - Ignore colors specified on webpages
 - Ignore font styles specified on webpages
 - Ignore font sizes specified on webpages

5 Test the result !

An **heuristics Evaluation**, to verify compliance with standards and heuristics.

A **cognitive walkthourgh**, see the definition above-cons.

A **focus group** or a **Workshop** are good solution with professional users, but users are not designers !

A **User test** with real users in realistic conditions is better, but it is expensive and time consuming to implement. Prefer «kitchen tests» with 2 or 3 users, but realize more often. The goal is to find ergonomics errors to correct and not all errors.

A **cognitive walkthrough** starts with a task analysis that specifies the sequence of steps or actions required by a user to accomplish a task, and the system responses to those actions.

The participants perform the walkthrough by asking themselves a set of questions for each subtask. Typically four questions are asked :

- Will the user try to achieve the effect that the subtask has?
- Will the user notice that the correct action is available?
- Will the user understand that the wanted subtask can be achieved by the action?
- Does the user get feedback?

By answering the questions for each subtask usability problems will be noticed.