



Laws of Interface Design

Jason Spisak

I am by no means an expert, nor certified, accredited or formally studied in the field of UI design. However, after years of being tortured by brainless interfaces designed by professionals, I decided to take all of my thousands of hours of experience on hundreds of programs and write my own laws of UI design. I've read a grand total of one article regarding Fitt's Laws and other UI concepts and have used Windows 3.11, 95, 98, NT, 2000, XP, Mac OS 7.5 through OSX, and just about every Linux distribution containing KDE 1.1.2 through 3, Gnome 2, and other desktops and windows managers. These laws of user interface design are user-centric and inspired by the idea that interfaces should befriend the user when possible, and simply be less. After each law, I explain how Mezzo implements it.

1. Fitt was right and no one listened. The four corners of the screen are sadly under-utilized causing users to constantly mis-acquire important interface elements...and get pissed off.

Mezzo Solution: Corner Targets. The Corner Targets in Mezzo explicitly force Fitt's Law into practice. All of the oft-clicked menus are able to be accessed by ramming the mouse into a corner. So easy, it hurts.

2. Nested menus are evil. A good user interface will eliminate nested menus since humans have a hard time targeting menus in the first place, let alone panning up, then scrubbing to the right or left in a 20 pixel wide corridor.

Mezzo Solution: Desktop-wide menus. Mezzo banishes the nested "Start Menu" and "Apple Menu" concepts in favor of the expansive desktop-wide menus launched by single-clicking the Corner Targets. These menus eliminate the pan-and-scan method of finding the proper information in a menu, and cut down on the user accidentally missing the nested menu, and having to go back and re-drop the menu to try again.

3. Scrolling sucks. A good user interface will minimize scrolling, and encourage the user to create volumes of information that do not promote scrolling.

Mezzo Solution: Auto resize icons and information. The default desktop menuing interfaces auto resize the icons and information sizes to eliminate scrolling to see the immediately available information. When more items are visible, they shrink in size, and/or offer less information. I coupled this with the desktop Target Menu themselves replacing much of the need to launch a file manager or other 'scoll-happy' interface driven program.

4. Drill down interfaces are evil. Aka; Don't hide things from the user, unless you have a really good reason, and if you do, make it really obvious. The Windows, Gnome and KDE control panels are guilty of this from time to time, as are any desktop icons like My Computer. By forcing the user to drill-down through UI elements to find the one they want, you kill any chance of them finding it instinctively or quickly unless they are great guessers. "How am I supposed to know that my printers are in my Start Menu under Control Panel? Isn't my Start Menu for Programs?"

Mezzo Solution: The entire screen is used to present the Target Menu under each type of target. This gives plenty of space to provide non-hidden and plain language access to almost every useful function in the OS. The Settings are not below anything, they are in plain view. The only hiding which occurs is the targets themselves, but they borrow on established "norms" for content placement, such as Programs in the lower left and the Computer in the upper left. Desklets can offer non-hidden access to key functions is needed as well.



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Mezzo Solution: Small amount of configuration options and many decisions made for the user. There are things you can't configure in the Mezzo interface. Like the position of the close window button, or the window décor. If that makes you unhappy, then there's other alternatives that can be easily created or downloaded and you can move the window decore until you are thoroughly confused to your

heart's delight. Also, the number of Settings modules are limited on purpose in the mock-ups because they should be. Users should not be burdened with over-configurability. Instead their computer should be like their TV and just work, with a few small adjustments if necessary.

6.Consistency is worth more than multiple placement. People are trained monkeys, but they also make associations that help them learn faster. If you group like-oriented activities in a single place, the user can trust the interface to find similar stuff in that place. However, if, like Windows, you put access to a function in several disparate locations in an effort to hopefully "be there" when the user is looking, the UI defeats itself. You confuse the user more by giving them no logical location-association for a given type of action. The cost out weighs the benefit.

Mezzo Solution: Action driven Corner Targets. You won't find access to shared files on your network in the applications menu on Mezzo. Nor will you find the Settings menu next to your favorite programs. Mezzo breaks up the desktop into four distinct topic-driven areas via the Corner Targets. The upper left is for hardware devices and settings, the lower left is for programs, the upper right is for documents and document locations, and the lower right is for trash. Ah, simple, consistent, and easy to remember and acquire.

7.The drag-and-drop desktop and its icons are the junk-drawer of the modern computer and should be eliminated. In addition to hiding things below drill down icons which is the #4 no-no, desktops quickly become cluttered without user intervention. Making it harder on the user, every file-dialog encourages saving to the desktop by offering the confusing choice of "Desktop" along with Documents, or Pictures. If we had a nickle for every time a user saved something to their desktop and wondered where it went, we'd be rich people. If users need to save a picture of the web or grab a URL, then the browser has wonderful facilities for doing that; Bookmarks and Save Image As. Popping things up onto the desktop like CDs or Hard Drives or copying program shortcuts there leaves the door open to the user a)missing what happened, or b) losing the UI elements they've come to depend on in a see of surprise clutter.

Mezzo Solution: No traditional desktop. There is no DnD desktop, no magically appearing devices, and no copying to it by rabid installers. Instead the desktop has useful information (Desklets) that stays there until specifically moved by the user. We have an advantage because most of the world instinctively mouses to the lower-left corner for their programs menu. The absence of desktop icons should take half a second to overcome for most people.

8.Pop up dialogs and ballons are a horrible interface tool. Popup dialogs demand attention, often at the most inconvenient time, no one reads them, which is dangerous, and having to read them for important information or to take a desired action interrupts the users flow of work, and should be minimized if not discarded all together. Thank heaven for Firefox and the thoughtful integration of the Find Dialog, tabs and "above-content" messages embedded in the UI. Balloons are simply popup devils that are smaller and more area specific. They are evil too, just in a different way, since balloon disappear entirely if not touched and vanish, leaving the user to wonder where the important information that needed their attention so badly that it had to be popped up at them went.

Mezzo Solution: The desklets and Target menu desktop interfaces serve to provide the user with information that they can observe and are constantly updated with relevant and new information. For example, if someone send me an instant message, the desklet can show the message and even change color, but it won't popup in your face, demanding attention and a mouse click.

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Icons and some graphics are from the [Nuvola](#) KDE icon set by [David Vignoni](#)