Good User Interface Examples:

1. Notepad++

```
*D:\source\notepad4ever.cpp - Notepad++
#include <GPL.h>
  2
     #include <free software.h>
  3
     void notepad4ever()
  4
  5
    □ {
  6
        while (true)
  7
        {
           Notepad++;
  8
  9
        }
 10
 11
```

I enjoy using Notepad++ due to its simple user interface and additional features over Microsoft's Notepad. This application keeps the UI simple while still providing the necessary features to make it useful for many different purposes. The reduced number of buttons also keeps it low on memory requirements from users. The icons utilized in the toolbar also are externally consistent with almost every other application on Windows, OS X, and most distributions of Linux. When moused over, the icons also provide users with a tooltip describing what shortcut can be performed to complete the same action. Although there is no physical feedback when clicking on an icon besides possibly the feedback of a mouse click, users will see the virtual icon "depress" and then resume to its initial image to provide visual feedback that it has been clicked on. As with most other Windows applications, it has the traditional exit buttons. It also has an icon for an undo operation of the previous action. There is also plenty of readily accessible documentation and when error messages uncommonly appear, they are easy to understand with little technical knowledge. For these above reasons, I enjoy using Notepad++ because it truly is a better interface than just Notepad.

2. AT&T Cordless House Phone



My parents have wireless home phones exactly like those shown in the picture above. The new cordless phone design in general is a better interface implementation than the old basic wired phones. First, the new interface contains a digital display that can provide information such as caller ID, missed call and message alerts. Since the displays are not very big or advanced, they are very simple to use and understand. The physical design is no different, it is very simple and does not have overly complex features. Since most wireless phones are very similar, there is an external consistency between all brands in design layouts such as the key pattern and buttons for features such as speaker phone functionality. This particular model also has a very useful menu button that allows users, amongst many other things, to mark all missed call alerts as read. This can be used as a shortcut to eliminate having to scroll through up to 50 missed calls. Another shortcut for users as they become more experienced is through the use of the redial button. I would imagine most people that are accustomed to a digital phone have used the redial button at least once. One particular item that this phone exceeds in is feedback. When dialing a number, I can feel the button press, hear an audible note that notifies me the number was detected, and I can see the numbers I have entered on the screen. If I accidentally entered the wrong number, I can press the delete key which allows me to undo the last key press. I could also hit the end call, or cancel, button to return to the home screen. The means to perform these undo or cancel tasks are well documented right on the unit via the labels on specific buttons.

One area where this interface could use some improvement, is in its error messages. The unit has the ability to act as a walkie talkie via a push to talk feature. Occasionally certain handheld units will unexpectedly drop the session and will not display any information as to why. This can be frustrating especially when it is being used to communicate information to a family member. Overall the interface is very good, which is partly due to an overall consistency amongst all competitors in this given market.

Worst User Interface Examples:

1. 2009 Honda Accord Dashboard:



I chose this particular example as one of the worst user interface designs for multiple reasons. This interface was designed to allow users control the radio and cabin heating/cooling operations in the vehicle. First, of all, the radio section of the center console is far too cluttered. Honda did not follow the Simple and Natural Dialogue Heuristic which states that less is more. There are far too many buttons and they are not consistent in terms of size or shape. With that said, the appearance of this design undoubtedly increases the user's memory load. The buttons are by no means grouped into categories or sorted by any easily determined method. Since the buttons often have different shapes and sizes, the dashboard also lacks internal consistency between it's own components. The "Volume" button also is far smaller than the "Enter" button, thus another internal and external inconsistency. It also experiences another external inconsistency by not following any commonly accepted conventions for heating and cooling controls. Generally, car manufacturers will have simple interfaces for controlling the cabin temperature below the radio. The buttons for managing that system in this example are actually split to either side of the radio controls making the memory load as to where each button is located is unnecessarily high. The only positive thing that I can determine from this picture is that this dashboard does have is a set of clearly marked exit buttons, "Cancel" and "Menu." Unfortunately, without actually interfacing with this setup, I cannot determine whether there is sufficient feedback, shortcuts, and error messages that various actions provided. From my experience with car consoles though, there is usually sufficient feedback from the buttons to indicate a button press was successful.

I believe that this particular design was implemented by the designers at Honda because there are few other interfaces like it in cars. Most manufacturers provide very basic, simple console designs. This design was most likely intended to make the car feel as if it had more entertainment features than it really did. I feel that a design such as the 2009 Nissan Altima's center console is a far better implementation as it is simpler, less memory intensive, and has many shortcuts that are clearly marked.

2. Windows Mobile 6, experienced on the Palm Treo Pro 850e phone:





PalmInfocenter.com

I chose this as another example of one of the worst interfaces due to my prior experiences with a Windows Mobile 6 phone. Overall, the operating system lacked a number of features that would have moved it to the next level. The home screen design was more complicated than some other interfaces of its time. For example, the "widgets" that you could add varied in terms of their abilities. Some of these used the left and right navigation buttons to view more information while others didn't. This increased the memory load of the end-user who had to therefore remember whether or not they were scrolled back to the original item in the carousel. On the same note, some widgets allowed you to "click" in order to view more information while others did not. There were too many little aspects like the aforementioned two that caused this to become an annoying interface over the course of the two years I owned this phone. The interface was fairly consistent with Windows XP at the time in that it allowed users to type Word, Excel, and Powerpoint documents. It lacked consistency with other phones such as the iPhone at the time though because of how features were accessed such as a calculator. The Windows Mobile 6 phone almost always required many more steps in order to launch equivalent programs. These applications also took much longer to load than competitors. The application launcher appeared out of date and lacked customization. My particular phone only displayed about 6 applications per screen and required me to scroll a lot to get to a web browser since I used Opera Mini. I did not like Internet Explorer because it lacked the ability to use tabs while browsing which was another external inconsistency the phone exhibited. Windows Mobile also lacked input feedback via vibration which I frequently use on my new Android device. It helps me to quickly determine whether or not my key press was recognized or not. This phone also lacked a home button and many other shortcuts and gestures. There was horrendous support for the OS as well, and it actually provided ridiculous error messages at points. In particular, I remember receiving one when the device failed to connect to a wireless network that actually told me I should consider re-installing the mobile operating system.

If I had to guess why Microsoft released it as is, they either decided that it wasn't worth wasting any more development money on or realized that it was not going to become very popular. A much better interface design implementation can be seen through the modern iOS or Android

4.0+ UIs. Overall, this phone and OS left many interface features to be desired and thus I stay away from Windows Mobile phones now.