

Franklin  
Rolodex Electronics Personal Digital Assistant  
RF8110

### **Introduction**

As it turns out, a friend of mine had this gadget and had never used it. He was going to lend it to Greg Hoofnagle to do his usability paper on, but Greg decided to do his report on another device. So instead, I decided to write my report on the interface and asked its owner to help me. He was a bit excited to help, because it was something he really wanted to use and had just not gotten around to setting it up.

I asked my friend if he would mind if I made notes, and if he would tell me what he observed as he went about setting up this personal digital assistant. I also asked him to tell me what choices he was going to make before he made each choice so that I could record it.

### **Usability Notes**

To start with, my friend said he had never had any experience with a “personal digital assistant”. He said he thought a PDA would help him do the following things:

- Record appointments and remind him of appointments.
- Record and store telephone numbers.
- Record and store e-mail addresses.
- Maybe be able to write and send e-mail with the device.
- Be able to perform calculations.
- Perhaps store personal data such as his checkbook record so that he could use it to balance his checkbook.

He began looking at the PDA at 8:31 pm. I asked him if he would mind first describing the PDA to me.

He thought it had a peculiar shape. He was expecting a rectangular shape but he describes this device as cylindrical. I asked him if he could discern a reason for its shape and he said that because the bottom-side is narrower than the top that perhaps it would fit into his pocket better. (I personally thought it was so that it would fit into the palm of the hand better, but I didn't voice my opinion).

He then went on to pull the stylus off from the back and commented that he thought he wouldn't risk losing the stylus having it stored there, and then he removed the cover. He pushed it and it flew off, but he calmly picked it up and slid it upside down onto the back as if he knew the convention for it.

He said he could clearly discern the on/off button and was going to start there by pressing it with they stylus. The PDA turns on and he sees a screen. On the screen he clearly sees what appears to be the time and can tell it probably means that it is Tuesday because of the “TUE”, but knows that can’t be right, as it is obviously Saturday! Then he notices that it shows 03 16/12. He can’t decide if that is supposed to represent a date or what.

He then goes on to observe an alphabetic keyboard arranged in the standard “qwerty” arrangement with numbers. He can’t see any punctuation symbols but does see mathematical ones such that he recognizes them as meaning add, subtract, multiply, divide, square root and percentage.

He also sees icons. Two look like telephones – one with a “B” and one with a “P”. He thinks they must be to store “business” contacts and “personal” contacts. He reports another one to look like a globe inside a gyroscope with “WWW” on it.

Another shows a clock and he says it is making a noise. I ask him what does he mean it is making a noise? Can he hear it making a noise? He answers that no, he can’t hear it, but he can see it. I ask him to describe what noise looks like and he gestures with his hands in the air and tells me that it looks, “like sound waves”.

He adds the icons and determines that there are ten in a row.

To determine how big the icons might be, I ask him how large he thinks the PDA screen to be. He estimates with his fingers and decides it must be 3” x 5” and goes on to tell me that it is not in the normal aspect, which is 4” x 3” and that the display is rectangular. (I didn’t know about the normal aspect, but I didn’t question him).

He comments that the screen is a bit difficult to read. He tilts it and says that when he does tilt it, that the “predominate” information goes away and he sees a second set of information. The view seems to be adjustable in his hand. He says that right above the subordinate information, it looks like part of the top row of a calculator memory keys.

He describes another icon, a square emblem with a bow tied in the middle with the letters “SCHED” underneath. I ask him if all the icons have letters underneath them and he says they do. There is a pencil icon that says “TODO” underneath, 3 pieces of paper in a pyramid shape icon that says “MEMO”, a rectangular symbol that says “CALC” and he assumes to be a calculator function, and an icon he can’t recognize that says “EURO” underneath that he assumes to be currency exchange rates.

He then notices that at the very, very top of the display a row of teeny, tiny symbols. He can only recognize one, and it looks like a musical quarter note.

He adds them up and says there are 17, but that he can't make out what they are.

He presses the musical note symbol with the stylus to see if it will do anything. It doesn't.

He presses the "time" symbol. He hears a beep. He presses it again, it beeps again. He is confused by the time symbol. He was hoping to set the time but seems to be only able to set the time zone. It shows him things like "MOS", "CAI", "RIO", "WWZ", "AKL" and he feels confused until he finds "LAX". He recognizes that as Los Angeles and says that would be the right time zone. He presses the time zone icon again and it went back to the default as if a toggle switch.

He then discovers arrow keys at the bottom of the screen. They are left/right/up and down arrows. He presses the left arrow. It beeps. He presses the right arrow it also beeps. He tells me that he is still trying to set the time. He says that it is not intuitive to know how to set the time. (He's still very positive and keeps trying).

He sees another symbol at the bottom of the screen that says "12/24" and he thinks that is probably a twelve-hour clock versus a twenty-four hour clock. Then he comments that maybe the time setting does not set the clock as he had assumed.

He presses random keys and each time the PDA beeps. I asked what he thought about the beeps. He said that he likes them, that it lets him get feedback that he is actually pressing something, even if it doesn't appear to work like he wants it to.

He decides that he does not know how to proceed to set the time and date and so he decides to enter a personal contact name and telephone number. So he presses the telephone icon with the P and hears a beep. It gives him a flashing "NAME?" field. He enters my name "JANET TURNER and then presses the "enter" key at the bottom of the screen. It gives him a "wait" message and then returns him to the "NAME?" field. He tells me that he was expecting it to ask him for a telephone number. He supposes that it wants him to enter all his name contacts first and then each corresponding telephone number. He presses enter again and gets a "COMPANY" field. So now he presses enter again. It doesn't do anything. So now he begins pressing the up and down arrow keys. He can't figure out how to enter a phone number or how to even look up the phone number field.

At this point, he is getting frustrated.

He decides to start over to enter a personal contact. He presses the word delete that he just notices at the bottom of the screen. It returns the “DELETE?” message so he presses the “Y” key on the keyboard to indicate yes, and the screen then gives him the flashing “NAME?” message field. So he tries to re-enter the name and then presses the space key. The first name gets deleted.

So he decides to try one more time. He presses the icon. The “NAME?” field comes up. He types Janet space and then has to adjust the screen around in his hand to read it, he presses, “enter” and it says, “WAIT”... then returns him to the “NAME?” field. So he types his own name and “enter”. Again it tells him to wait. Then the “NAME?” comes up and again he presses, “enter”. Then he gets “COMPANY?” and he thinks that means it wants him to enter the name of the company, so he enters a word but now he can’t press “enter”, “enter” has gone away. So he uses the down arrow key and gets an error message, “NOT FOUND” and then it returns him to the “NAME?” field.

He starts over by pressing the icon. He enters a new name and the down arrow key this time. He gets a “NOT FOUND” message. He experiments more with the arrow keys and finds his name. Now he supposes that it was perusing the list of names. But he wants to enter telephone numbers. He decides it is not easy to use and wishes he hadn’t spent his money on it!

He then decides to try another function. This time he decides to enter a “MEMO”. He presses the “MEMO” icon and it returns a flashing “MEMO?” in response. He asks, “What does that mean?” He decides that it is asking him to type in a title for his memo so he obliges by typing in, “things to do”. He then presses, “enter”. He is returned to the “MEMO?” field.

He keeps trying for a couple more minutes and announces he’s done and that he has no clue on how this thing is supposed to work. I asked him if he could see any sign of a help button or help function. He looks and says no.

I then bring out the instruction book and ask him if he would like to try to set up his PDA using the instruction book instead. It is 9:11 pm. He decides he will and will start by setting the time. I let him read and enter functions. At 9:18 pm he said, “What help is this!?!” He determines that even with the instructions that he cannot figure out how to use his PDA. He says that there is nothing user friendly about it. He’s quite disgusted with his gadget!

He fiddles a bit more with it and finally sets the date format. He continues reading the instructions for a bit. At 9:22 pm, he decides it is totally useless.

He says, “You get what you pay for”.. Turns out he got it for free.

## **Summary**

Although I know I've strayed outside of the requirements for this report, I couldn't resist being the observer for this particular device. When we were finally through, I burst out laughing. I couldn't help myself! My friend was taken aback because he thought I was making fun of him, but I had to tell him no, I was laughing because I couldn't believe how hard it was to be the observer and not make suggestions as to what he should do next. It was, I am sure, much easier for me to restrain myself having no experience with the device myself, than perhaps someone who designed it! I told him at the end of the experiment, that I had looked on Amazon.com to see how much this particular PDA cost. It costs just under \$15.00. This was actually a relief to him and to myself. It has such a low usability factor that being inexpensive seems to have excused it. This idea of low usability with being inexpensive must be a cultural aspect that we've somehow grown up expecting. That could be a report unto itself!

According to Issacs and Walendowski, "The usage tester must be trained in observation techniques, open-minded and eager to find problems rather than trying to defend the system, and ideally, deeply knowledgeable about the system so they can decipher the underlying causes of the problems" (346). I was rather a good observer, if I do say so myself, and when I did ask questions, I tried to ask open-ended questions rather than lead the user on. I wasn't particularly eager to find problems as much as I was eager to see how usable this device was to someone with no experience with it. I also was not knowledgeable about the system so am probably no help with understanding the all of the causes to the problems it poses. However, I did see one very obvious problem and that is - the system is not intuitively easy to navigate. Another very obvious problem is that the instruction manual itself is very difficult to read, apply and understand.

I found that this informal observation was rather fun to do! I was most impressed with my friend's perseverance with his PDA. He was motivated to use this device and was pretty disappointed that it was so difficult to figure out. Given another user, perhaps they would've given up much earlier. Or perhaps they would've had experience with a similar system and been able to figure out how to navigate it. I think it would be fun to take this same system and observe about five other people use it in a similar manner. Ah, but tomorrow is another day and we must press on!

## Works Cited

Isaacs, Ellen. and Alan Walendowski. Designing From Both Sides of the Screen.  
Indiana: New Riders. 2002.