Scheduling System Interface Design
Tucson Medical Center

Milestone 4: Low-Fidelity Chauffeured Testing

Creative Design Paradigms

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Awesome job. Can I have a copy?
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Tucson Medical Center Emergency Services currently uses a pencil and paper scheduling system. Creative Design Paradigms is developing a user interface for a computerized scheduling system for the department. The purpose of this document is to describe the chauffeured low-fidelity prototype testing of the system that was conducted with three employees who would use such a system. The goal of this testing is to discover design problems and overlooked user needs and desires. The use of a low-fidelity prototype is intended to encourage test participants to offer honest feedback. The paper “computer” lets the users know that the system is still malleable. They can see that their suggestions are taken seriously when they see you make an on-the-fly change to the system.
Prototype

We decided that our prototype should be constructed with the familiar format of a web browser. For our first scenario, entering a schedule, the user is greeted by a log-in screen that has the TMC logo across the top, along with a heading identifying it as the login to the scheduling system. A message greets the user, asking them to enter their username and password. The username and password are the identical to those used to log onto the other hospital systems. For our prototype, we had a generic username and password. After entering this data, users click the "Login" button, and are taken to the second screen which displays a greeting and their personal information: name, job title, primary working shift, and primary working area. A message informs the user that if any of their information is incorrect they can change it by clicking on a button that will take them to a change profile screen. This feature is disabled in our prototype, as it is outside the scope of our scenario.

After viewing this message, the user should click on the “Record Schedule” button on the menu bar. This action takes them to a screen, which looks like a calendar with the title “Schedule Request form for period beginning on February 24th, 2002.” Schedules are posted on a four-week, rather than monthly, basis. The calendar metaphor is appropriate for a scheduling system. At this point, a dialog box pops up with basic instructions on how to enter an employee schedule (Appendix G, Instructions). Users are instructed to click on a day to start the process of filling in their schedule. The instructions include a picture of what will appear in the calendar as they enter their schedule preferences. We named this a "WEPAR" box because of its five buttons. The user is referred to a legend at the bottom of the screen that corresponds to the five buttons: W (work), E (hospital education), A (available), P (Paid Time Off or PTO), & R
(requested day off). There are also two drop-down menus, one containing shift times, and the other work areas.

The user can choose to click an “OK” box, so that the instructions don’t appear again, or they can simply click the close button. If they do not click the “OK” box, the instructions dialog box will appear on their next login to the scheduler. This instructional menu was added after our first chauffeured test when it became evident that some simple instructions were needed.

The user should now click on the first day listed for them to work in the scenario, February 24\textsuperscript{th}. A WEPAR box will appear, and their primary shift (Sam - 4pm for this scenario) and primary work area (MEC) will already be in the shift and area drop down menus. This is “automatically” filled in by the system, based on what is in their user profile. The user should click the "W" button, indicating that they wish to work on that day. The "W" will then be highlighted. They should now click on the 26\textsuperscript{th}, as indicated in the scenario. When this happens, the WEPAR box appears in the square for the 26\textsuperscript{th}, and it disappears from the 24\textsuperscript{th}, and is replaced by this text: “WORK, 8am-4pm, MEC” (each comma represents a carriage return).

The scenario instructs the user to repeat this process for March 6\textsuperscript{th}, 9\textsuperscript{th}, 10\textsuperscript{th}, 11\textsuperscript{th}, 14\textsuperscript{th}, and 17\textsuperscript{th}. When March 6” is clicked on, a WEPAR box appears, but then there is immediately a pop-up window informing them that the par-level for that particular shift on that day has been reached. The user is instructed to either select a different shift or area or to mark his or herself as available to work that shift. Our scenario instructs the user to choose “available,” so they should then click

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{wepar.png}
\caption{WEPAR dialog box}
\end{figure}
on the “A” button. The “A” button will then be highlighted. When the user clicks on March 9th, text appears in the box for March 6”: “AVAILABLE, 8am-4pm, MEC.”

The user continues through the scenario, clicking on days and the appropriate WEPAR boxes. We have them request days off, take paid time off, and mark that they will be in a hospital education day. There are two days when the user is instructed to change their shift to 4pm-12am, a process which is accomplished by clicking the drop-down menu button next to the 8am-4pm time, and changing the selection to 4pm-12am.

There are two buttons on the lower right hand side of the screen, under the schedule calendar. The first is “Reset All” which will erase all the changes a user has made to their schedule if it is clicked. There is an “Are you sure?” warning which pops up in case a user mistakenly clicks this button. The second button is “Done” which is what the user should press at the end of our scenario. This will take them to a screen that displays what they have selected for their schedule. They have the option of printing this schedule. The user should click the “Log Out” button which is located in the top right hand corner, below the logo area. Scenario 1 is now complete.

In Scenario 2, we have the user testing the role of schedule coordinator, normally a job performed by just one person. We want the user to come up with a report used to verify that the number and type of people working specific shifts in specific areas of the department meet requirements set forth by the management team. Users are not required to actually verify the report; we just want to make sure they can produce it using the system. The scenario starts with the user already logged in at the screen that contains their personal information. In order to verify the schedule, the user should click on the “Reports” button, which causes a drop-down menu to appear. There is only one selection on this menu; all other information is greeked.
They should click on “Verify Schedules” on the drop-down menu. When they do this, a pop-up box appears and the user must pick the schedule period they want to verify. In our scenario, we want the one beginning on February 24th. This is selected by clicking on the drop-down menu and selecting the date. Users then should click “OK.” Now a report containing the previously mentioned information appears on the screen. The user should print it. At this point the scenario is over; however in real life it would be necessary to actually review the information.

Our third scenario involves having the user request a schedule trade with another user. Once again, the user is already logged in at the beginning of the scenario, and it starts on the page with personal information. This time they need to click on the “Trade” menu and choose the “Availability” option. A dialog box appears and they choose a date for which they wish to generate a list of available workers (those who are not already scheduled to work). The list is displayed and the user is told to simulate phoning and negotiating a trade with a specific partner.

After finding a trading partner, the user is instructed to notify supervisory personnel of the trade. There is one other option on the “Trade” menu, called “Trade Notice.” The scenario says that Joe Brown has agreed to make the trade with the user in exchange for having the user work his 8am-4pm shift on March 5th. When the user selects “Trade Notice,” a form titled “Trade Notification” opens. The user is to employ multiple drop-down boxes to fill in the trade partners name, the dates, shifts, and work areas involved in the trade. Putting the trade partner’s name in the first name field automatically enters it into the reciprocal field in the second half of the form that is completed if the user is to work for the trading partner. If the partner is working for the user and does not require the user to work for him/her, this part of the form may be left blank.
Once the form is completed, the user should click “Send,” which emails the trade notification to the schedule coordinator and supervisory staff. The user should log out, and then the scenario is over.

We chose to use the web browser format for two reasons, the first of which is that most computer users are familiar with it, and the second is that ideally the system would be implemented so that employees could access it from anywhere. All of our users have to use computers, even though some of them are much more comfortable with them than others. We keep the same logo at the top of all of our system screens and only the information in the bottom three-quarters of the screen changes. Under the logo, a bar runs the length of the screen. It contains the buttons that users must click in order to perform system functions. We decided that having it along the top of the screen would be best, as we have some buttons that have drop-down menus. It also provides a consistent look to the system.

The cornerstone of our system is our calendar metaphor for the schedule. At first, using a calendar to represent a scheduling system seems to be a simple idea. However, we quickly realized that we needed to figure some way of compactly representing what users could do for each day, on the calendar space for each day. This is how we developed the WEPAR boxes. The WEPAR boxes are paired with a legend at the bottom of the screen, using terminology that is familiar to the user group. A lot of discussion went into their creation, and we tweaked and streamlined the process several times.

Another element we had to decide about was what should happen when a user clicked on the next day. Should the WEPAR box stay there with some highlighting on the W, for instance, if the person was going to work that day? We decided that this would look too cluttered and wouldn’t really tell the user what they were doing on a particular day, especially if they were
glancing at a schedule quickly. We decided that when users click on the next day, the previous day will change to text describing what they are doing, i.e. “Work,” “PTO,” and if they are working, the shift and work area. If a user forgets to click a WEPA button, it simply goes back to being a calendar day when the next day is clicked on. The one time this happened, the user checked over their schedule at the end, and located the mistake. With a few modifications during testing, such as a pop-up instruction box, the calendar system seemed to be quite usable.

One of the biggest arguments was about whether or not the button at the bottom of the calendar should say “Save” or “Done.” The Save contingent wanted that word, because they felt that users were familiar with that motif. However, the Done side made an excellent point in that the system would have to update in real time, and users might think that if they did not push the save button, no changes would take place. This is not how the system would be set up. So we decided that “Done” would be appropriate for exiting the scheduling calendar. Other elements of the system, like drop-downs, were familiar to the users from working with other programs at TMC.
Method

Participants

Our three users are all nurses working in Emergency Services at Tucson Medical Center. We asked the test participants to fill out a pre-test questionnaire to assess user characteristics (Appendix E). Two express a positive attitude toward computers; the third says she is neutral. All three have at least one year of computer experience. Kara Rillos, User 1, is a Licensed Practical Nurse (LPN) who does nursing work in the Minor Emergency Center (MEC) but primarily does clerical work calculating and entering charges for the MEC and Children’s Emergency Center (CEC). Lil Baker, User 2, is the current schedule coordinator. She is a Registered Nurse (RN) who works in the main Emergency Department (ED). Geoffrey Pangrac, RN is User 3 and also works in the main ED. He is currently training to be an information systems liaison for Emergency Services. User 1 is in the 30-39 year age bracket; Users 2 and 3 are in the 40-49 year bracket. Two users work 21-30 hours a week and the third works 31-40 hours. One of our users has a bachelor’s degree; one has an associate’s degree.

Apparatus

The prototype of the user interface for the Scheduling System Software was implemented on a piece of sheet metal, so that we could use magnets to attach all the pieces. A 13” x 15” cardboard with an 8 1/2” x 11” center cutout simulated the computer monitor. This frame had the interface for Internet Explorer drawn on it. 8 1/2” x 11” pieces of paper emulated our prototype computer screens. Several 3” x 5” index cards, each with a piece of magnet, were used as pop-up menus to provide instructions to the user and to display error messages. A series of
"xl " cards simulated what happens when users click on our calendar format. These menus display the requester’s shift, work area and scheduling options. Magnets were chosen because we felt it provided the simplest method to swap the computer screens and to implement pop-up and drop-down menus on the fly, and to have them stay in place. Fonts and graphics for each window were drawn by hand via black marker.

During the test, a pen with a retractable ballpoint that made a clicking sound was used to simulate the click of a mouse. A transparency sheet emulated the keyboard, by allowing the users to enter their login information. The transparency was selected so that information could easily be wiped off after the test. A camcorder was used to record the user’s reactions and comments during the test and their navigation through the software menus.

The test was conducted in an empty room at the TMC on two different days. On the first day, we were given a large room with several tables. We arranged it so that each of the scenarios was set up at a different table, so the user just needed to move from one table to the other, with little time between tests. On the second day, however, we were constrained by a small room with one table, and we had to set up each scenario one after the other. This took a bit more time.

Scenarios

**Scenario 1**
The work schedule for the period beginning February 24th has been posted. You are Jane Doe, a core RN, who usually works the 8am to 4pm shift three days a week in MEC. You would like to record your schedule for the coming period. Make your schedule reflect your work preferences for the period, according to the following:

- Your user name is: erjad0
- Your password is: abc123
- NOTE: If you encounter a shift that has already reached par level, mark yourself as available to work for that shift.
- You would like to work the following days in February: the 24th and the 26th from 8 am to 4 pm.
You would like to work the following days in March: the 6th, the 9th, the 10th, the 11th, the 14th, and the 17th from 8 am to 4 pm.

You would like to work on Mar. 3rd and Mar. 23rd from 4 pm to midnight.

You will spend March 1st in a specialized training program for new nurses. Because your friend is coming to town on Friday, March 15th, you would like to request that day off so you can spend time with him. You want to let the schedule coordinator know you are NOT available to work on the 15th. Since you are already working 3 days that week, you do not need to use paid time off (PTO).

You are planning a trip to Flagstaff from March 18th through the 22nd. You will be requesting the 18th through the 22nd as days off of work. Of those days, only the 18th will be a PTO day.

Scenario 2
You are Bob Smith, RN, schedule coordinator for Emergency Services. You have already logged into the scheduling system. The time for employees to fill out their work schedules on the posted calendar has expired. You now want to verify the schedule beginning February 24th to ensure that the number and type of people working specific shifts in specific areas of the department meet requirements set forth by the management team. For example, the management team requires that every day of the month there be 6 RNs on the 7AM - 7PM shift and 5 RNs on the 7PM - 7AM shift in the Emergency Department.

1. Find out if each area is adequately covered for each shift.
2. Print your findings.

Scenario 3
You are Brandy Moore, RN. On March 1st you make an appointment for a morning-long, glucose-curve test at the doctor’s office on the 8th. Because you have committed yourself to working that morning, you now need to find someone who is willing to replace you. You are already logged in to the scheduling system.

1. Find a person who is not working on the 8th, and obtain his/her contact information.
2. Contact the person and ask him/her whether he/she is willing to replace you on the 8th. (You can simply tell us that you made a call for this part of the scenario.)
3. You reach Joe Brown, RN, and he agrees to work for you. In exchange for the favor, you will work one of his days, March 5th for the 8am to 4pm shift (which doesn’t conflict with your schedule).
4. The trade does NOT cause either of you to work overtime.
5. Notify the schedule coordinator of the requested change.
Procedure

_Monna_ was the designated “Greeter” and “Facilitator” during the test. First she read the greeter script out loud to each participant. As a Greeter, she welcomed the users, explained the purpose of the test, and asked each one to complete three scenarios. She made it clear to each user that the purpose of the test was to validate the system and not to decide if their actions were right or wrong. Monna asked the users to sign a consent form to allow the team to videotape their test session. Users filled out a questionnaire to provide demographic information. As a Facilitator, _Monna_ led the users though each scenario. She informed them beforehand that they would receive no assistance during the test. In addition, she encouraged them to “think aloud” while working through the scenario tasks. After each test, Monna asked the user to answer a series of questions to assess the effectiveness of the system.

Chris played the role of “Computer.” He had to provide the users the appropriate screens and pop-up and drop-down menus when the users clicked the computer’s buttons. Chris’s role was significant because in order to make the test realistic, he had to memorize all the screen-sequences so that he could respond quickly _after_ each user’s selection. _Lynn_ played the “Observer” role. She took detailed notes on the user’s feedback and suggestions and recorded their reaction and causes of confusion during the test. In addition to drafting the test scripts, Gui acted as the cameraman capturing each user’s moves though the prototype and their reactions during the test. Unfortunately we were unable to arrange any of the user tests when either Priscilla or David were able to attend. It was a known fact that neither was going to be in town over spring break; both had had pre-arranged travel plans for several months. We tried to arrange tests with users while they were here, but were unsuccessful and our user testing had to take place during spring break. We discussed this as a team, and decided that as long as both
observed the videotapes, and took notes, basically acting as observers, the effect of their absence
would be minimized.

Test Measures

We watched our users carefully to determine how they interacted with the system. We
wanted to know if they would understand how to use the WEPAR box. We needed to find out if
they understood drop-down boxes and if they could navigate their way through various screens.
We wanted to see if our calendar metaphor would be appropriate for the user group. Users were
asked to enter a fairly complex schedule so we could observe their reactions to the interface and
determine if they would be able to accomplish this essential task with ease.
Results

Originally, we had anticipated that Scenario 1 (Appendix G, Scenario 1), entering a worker’s desired schedule would be the simplest. It has become the most difficult in the sense of requiring the most interaction. However, our user testing sessions give us cause to believe that this task will be easy for users if we build in some simple instructions in the form of tool tips. We believe that once users understand the idea behind the calendar scheme, it will be quick and easy for them to enter their work schedules. We also thought that Scenario 2 (Appendix G, Scenario 2) which involves verifying adequate coverage of each shift, would be the most difficult. It is the most difficult with the current pencil and paper scheduling system. But with a database collecting the input of user schedules, checking par levels became a matter of simply generating a report. This turned out to be the simplest task. Scenario 3 (Appendix G, Scenario 3), making a trade, remained the intermediate level task of our three scenarios.

We discovered several problems with our design during the chauffeured tests. We were able to make some changes on the fly and will make other changes in the high fidelity iteration.

Most of the problems were uncovered in the more complex Scenario 1. None of the users had any difficulty with our log-in screen. We tested this only in Scenario 1 and set up our other scenarios so that the user was “already logged into the system.”

We were pleased that our first user knew to click a day on the calendar to begin entering her schedule. The “CLICK A DAY TO BEGIN” screen instruction was successful. But we immediately encountered problems after this. She continued to click the days she wanted to
schedule but was not clicking the "W" in the dialog box (Figure 1) that appeared on each day that she clicked. As a result, she was not recording any workdays. At one point, she clicked the "W" in the key at the bottom of the screen. The facilitator stopped the test at this point and the team had discussion on what to do next. In hindsight, User 1 may have eventually figured out that she needed to click the “W” in the dialog box without our help. In any case, we explained that the letters in the dialog box were supposed to be clickable buttons and that the key was an explanation of what the letters meant. Our “computer” made some errors that confused the user and we had to explain what should have actually happened. Then the user tried to click "W" more times than necessary instead of moving on to the next calendar day. Once we got past all these hurdles, User 1 understood the way the system worked and was able to complete the rest of the scenario. The other big problem we had was that she unexpectedly wanted to click the browser back button. We were afraid that in “real life” this might erase all the schedule entries. Our design is that all entries to the schedule are made in real time and that each entry is recorded to the database as soon as the user moves on to a new day on the calendar. Still, it gave us cause for concern.

User 1 suggested that the calendar screen needed some sort of demarcation to show where one month ended and another began. We outlined the February days in blue and the March days in green. Unfortunately, it was difficult to tell the difference in these two colored outlines but it was easier to see that there were two months on the four week calendar (Appendix 16).
G, Calendar Screen). We plan to have different shading for the months in our high fidelity version. User 1 also suggested using a single WEPAR box that remains visible. She wanted to click a day, then click the appropriate letter on the always-visible box. In our version, the box appears after the day is clicked and disappears when another day is clicked.

After User 1’s session, we decided we needed an instruction set (Appendix G, Instructions) for the users’ first interaction with the calendar screen. We hoped that the system would be memorable enough that users would not need the instructions for subsequent interactions. User 3, specifically said that he was not clicking the “Do NOT show this box again” option because he wanted to have it available if needed. He also wanted to be able to drag the instructions box to different areas on the screen and keep it open while he started entering his schedule. When he unexpectedly clicked on the browser’s help button, our “computer” thought quickly and plopped the instruction set box back down on the screen. This made us realize we had not put a “Help” button within our scheduling system. After we added the instructions, we removed the “CLICK A DAY TO BEGIN” box.

The additional instructions eliminated much of the confusion that was present during our first test. User 2 tried to click the picture of the WEPAR box that we put in the instructions set but when nothing happened, she closed the box. She also clicked on the drop down boxes for shift and area on her first two attempts at entering workdays. She realized that she was not changing the default shift and area and stopped clicking on the drop downs until she was required to change the shift.

We found we were missing some “parts” during our tests. We didn’t build an email screen to follow the list of potential trade partners screen (Appendix G, Availability List) in Scenario 3. That screen told the user to click an email address to open an email to that person.
User 1 also pointed out that this screen had no “Close” button. She got out of the screen with the browser “Back” button. We drew in “close/minimize/maximize” buttons after the first test, but never did build an open email screen. The scenario says the partner was to be contacted by phone, not by email. We did not provide any feedback for users who used the system print options. The user has no clue whether their printing has been successful or not.

As mentioned earlier, Scenario 2 was the least complex of the three. However, we found that the term “par level” was unfamiliar to Users 1 and 3. User 2, Lil Baker, the schedule coordinator, has to check whether shifts are adequately staffed to par levels as part of her duties. She, of course, understood the term. After User 1’s test, we decided to explain to the other users that we did not intend for them to actually figure out whether par levels were being met or not. The scenario gives an example of what par level means but our users thought that we wanted them to verify whether the final schedule met par levels or not. Rather, we wanted them to use the system to pull up a report about par levels.

At the end of the trade scenario, Lil stated that, as schedule coordinator, she would prefer that the system not change the master schedule when workers arranged a trade. Our prototype has the workers send a notification of the planned trade to the coordinator (Appendix G, Trade Notification). Lil would prefer that only the coordinator or supervisors have authority to make the actual changes to the master schedule. She expressed concern that our scenario did not have both trading parties fill out the trade notification, so it could not be confirmed that both parties actually agreed to the trade. If both parties had sent notification, Lil would have no objection to the workers making a change to the master schedule. She felt the system would be more secure with limited access to changing the finalized schedule.
None of our users had difficulty with elements such as drop down boxes or signing off the system. They wanted to do things like enter more than one schedule workday at a time. We had considered this feature but didn’t know how to build it with a paper prototype. The three users we were able to schedule for testing all happened to be comfortable using computers, so the results could have been different with less experienced test subjects.

After watching the videos of our test sessions, our inexperience is evident. We offered “coaching” at times when we should not have and were not as silent during the test as we should have been. Our “computer” malfunctioned a few times but overall “it” performed pretty well considering what we paid for it!

well wait for the upgrade, Chris 2003. I ha...

modality testing has led to improvements...
Discussion

After conducting the chauffeured prototypes, the main consensus of the group was that the system, despite certain flaws that had been made apparent, actually worked as intended. This makes our job of programming a hi-level interface easier, as we probably don’t have to make major changes to our approach, only the minor ones that we made after our first chauffeured test.

As stated in the “Results” section, we had the most trouble with Scenario one. In order to fix this, and remove the confusion for users in the hi-fi prototype, we have to implement an instruction box that appears when a user first enters the scheduling calendar. This change, which was made for users two and three, made a large difference in the apparent usability of the system, however it still did not eliminate problems when starting the scenario. However, users quickly got the hang of the system, once they clicked on the first few days.

One area of minor confusion for users is that we do not have a very good differentiation for when a new month starts. We need to come up with a better way of showing this on the calendar. March makes up the majority of the scheduling period on the calendar, yet nowhere do we actually have “March” printed. This can perhaps be changed by having both the numerical month and date within each box of our calendar. For example we could have 2124 or 3/10 instead of just 24 and 10. Another change we will make is to state the entire range of the scheduling period. Currently, we just have a title above the calendar that states it is for “the scheduling period beginning on: February 24th.” This should be changed to a date range, such as February 24th to March 21st.

Other changes we need to make are centered around feedback issues, such as a failure to have a “Printing Completed” dialog box appear. We also need to come up with solutions to the email dilemma in Scenario 3. This is somewhat of a technical issue, as hospital employees use
Microsoft Outlook as their email client, and we have no way of hooking into their Outlook profiles. I think this is an issue we don’t really need to worry about when actually writing the interface. If we have a screen pop up that just looks like an email screen, that we probably work fine, as it is just a representation.

Based on our feedback from users, and our experiences conducting the tests, we are not going to change our basic design. The calendar metaphor and the WEPAR boxes that go with is seem to work quite well after users familiarize themselves with the system. We would like to stay with the web browser format, and it would be necessary for actual implementation, however we have yet to figure out how to make our calendar work as designed in HTML or JAVA. One of the other prototyping tools may be more appropriate for a mock-up. Scenarios 2 and 3 had almost no errors, and thus will not be changed much at all. We will probably add a couple functions to them, and figure out how various windows should appear and then go away.

Even though groups are not supposed to get attached to their design, we like the calendar format, and the way that we have designed for tilling out schedules. It is gratifying to see the heart of the system works quite well, with a few minor issue to iron out. If our scheduling calendar had failed, we did have a basic idea of another approach to try. Happily, this is no longer an issue, as long as we can now program our design.

Materials
This may not be a good way to do it perfectly, here for a prototype

Think about Access
You could mock up a calendar

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

You could do the same in frontpage

I am sure
A: Peer Evaluations
1. I will show up to meetings ready to work. If something important comes up that forces me to miss a meeting after I’ve agreed to it, I will email or phone at least one group member who will be at that meeting to let them know I will miss it. I will catch up on what was discussed BEFORE the next meeting; I will not take up time during the next meeting to catch up. All meetings with our company sponsor will be handled in a professional manner. I will attend all meetings with our company sponsor on time, and I will be adequately prepared for all meetings.

Measures:
- 10 -- attended all meetings, ready to work
- 7 -- attended all meetings but often wasn’t ready to work
- 5 -- missed over 20% of the meetings and typically wasn’t ready to work
- 3 -- missed over 50% of the meetings and was never ready to work
- 0 -- missed all the meetings

2. I will explicitly (either verbally with group members or through email) agree to task deadlines and I will complete my individual assignments by those deadlines. If I can’t complete my task by the deadline because of schedule disruptions, I will call at least one group member to explain the problem and will commit to a new deadline with that person. If I can’t complete my task because it proves to be more difficult or complex than I originally thought, I will call at least one group member to ask for help. At the next meeting I will explain why I couldn’t finish the task and, with the group’s help, reorganize the task and set a new deadline.

Measures:
- 10 -- consistently agreed to reasonable deadlines, completed tasks satisfactorily and on time,
- 7 -- mostly agreed to reasonable deadlines, completed most tasks satisfactorily and on time,
- 5 -- usually avoided making deadlines, completed about half the tasks satisfactorily and on time,
- 3 -- avoided making reasonable deadlines, consistently failed to complete tasks satisfactorily and on time.
- 0 -- completed no tasks satisfactorily and on time.

3. I will actively participate in each group activity. I will express my opinions and offer my ideas to the group in a respectful manner. I will prepare myself BEFORE the activity so that I am able to participate in a meaningful way.

Measures:
- 10 -- consistently contributed to group activities in a constructive manner,
- 7 -- mostly contributed to group activities in a constructive manner,
- 5 -- usually contributed to group activities in a constructive manner,
- 3 -- rarely contributed to group activities,
- 0 -- never contributed to group activities.

Appendix A: Peer Evaluations • Team Contract
4. I will volunteer for task assignments rather than avoid them. I do this because I realize that the more work I get to do properly, the more I will learn about the subject, and the better off I’ll be.

Measures:
- 10 – consistently volunteered for task assignments,
- 7 – volunteered for task assignments more than 50% of the time,
- 5 – accepted and performed task assignments but seldom volunteered for them,
- 3 – never volunteered, accepted assignments, did not always complete the assignments,
- 0 – never volunteered, never completed task assignments.

5. Keeping #4 in mind, I will not take on more than my fair share of work thus keeping others from getting involved, nor will I be unnecessarily dictatorial in telling others what to do.

Measures:
- 10 -consistently performed own assignments in timely and effective manner. Did not assume more assignments than he/she was capable of completing. May have assisted, but never tried to take over an assignment from another member,
- 7 – usually performed own assignments in a timely and effective manner. Took on more than they could handle at one time during the project,
- 5 -took on more than they could handle more than once during the project or tried to take an assignment away from another member,
- 3 – frequently took on more than they could handle or frequently did work assigned to other members,
- 0 – always took on more than they could handle or always tried to do the work assigned to other group members.

6. I will maintain confidentiality when working with sensitive organizational information

Measures:
- 10 – signed confidentiality agreement and honored all points of agreement, taking precautionary measures to protect sensitive information.
- 7 – signed confidentiality agreement and but did not take specific measures to protect sensitive information. No sensitive information was divulged,
- 3 – signed confidentiality agreement. Through careless activity, sensitive information was divulged to an unauthorized party,
- 0 – did not sign or intentionally violated the confidentiality agreement.

7. I will complete all assigned tasks in a thorough and professional manner. The task should adequately meet the course requirements and the group’s standards of quality work.

- 10 – consistently completed assigned tasks that were professional, accurate, and well supported.

Appendix A: Peer Evaluations • Team Contract
- 7 – always made a strong effort to assure that tasks were complete, accurate and professional
- 5 – all assigned tasks were completed, but not always done correctly
- 3 – most tasks were completed, but never done correctly
- 0 -never completed tasks

8. I am working for the good of the group and I will be willing to compromise! I know that I am not always right, and that this is a group effort! All decisions will be made as a group, and should there be any conflicts, they will be resolved by a majority vote. I will NOT waste my fellow group member’s time by insisting on arguing.

- 10 – Always contributed thoughts and ideas, and was willing to compromise or accept criticism.
- 7 – Occasionally contributed thoughts and ideas and was usually open to suggestions.
- 5 -Rarely contributed thoughts or ideas, but always supported group members
- 3 -Rarely contributed thoughts and ideas, and always criticized or argued with others
- 0 –Never contributed and always insisted on instigating group arguments

____________________________________________
Priscilla Aguilera 
Date signed

____________________________________________
David Jen-Ping Hsu 
Date signed

____________________________________________
Lynn Nguyen 
Date signed

____________________________________________
Monna Sebring 
Date signed

____________________________________________
Guilherme Silva 
Date signed

____________________________________________
Chris Staley 
Date signed

Appendix A: Peer Evaluations • Team Contract
B: Greeter Script
Greeter Script

We’d like to thank you for coming. Today we will be testing the prototype of a system that intends to facilitate the work scheduling system at TMC. You will be completing 3 scenarios during testing; each scenario asks you to accomplish certain tasks. It will be your job to figure out how to use the system to complete the tasks.

Your participation is very important for the improvement of the system we are designing. Please be aware that it is the system that we are testing, and not you. Therefore, there are no right or wrong actions from your part. However, if at any point during this testing session you feel uncomfortable and decide that you do not want to participate, please let us know.

We would like to start out by having you sign this consent form. Through this form you can decide whether we will videotape your testing session or not. If you feel uncomfortable about being videotaped, mark the second option.

We would also like you to fill out this questionnaire before we get started. This questionnaire allows us to better understand who the users of our system are.
**Facilitator Script**

I will be conducting you through the system testing. I will give you one scenario at a time. When you are finished with a scenario, please let me know so that I may give you the next scenario. I will not be able to answer any questions or help you during this session. However, I would like to ask you to think aloud while you work through the scenarios. It is very important that we know what you are thinking and feeling. This will help us troubleshoot problems with the system later. When you finish all scenarios, we will give you a questionnaire that will allow you to evaluate the system. We will also be asking and answering questions then.

Here is scenario 1.
D: Signed Consent Forms
Usability Testing Consent Form

Thank you for agreeing to participate in our usability testing. With your permission, we would like to videotape your session to allow us to analyze the way users interact with the system we have designed. This will help us to improve our design and make the system easier to use. We may share our findings and videotape during class activities.

Please read the statements below. Put your initials in the space next to the appropriate statement and sign where indicated.

I ___________________ agree to participate in the usability testing session and grant the student group known as Creative Design Paradigms the permission to videotape my session for the purposes mentioned above.

I ___________________ I agree to participate in the usability testing session but do NOT wish to have my user testing session videotaped.

Please PRINT your name: ______________________
Signature: ______________________
Date: _____________

Appendix D: Signed Consent Forms • User1
Usability Testing Consent Form

Thank you for agreeing to participate in our usability testing. With your permission, we would like to videotape your session to allow us to analyze the way users interact with the system we have designed. This will help us to improve our design and make the system easier to use. We may share our findings and videotape during class activities.

Please read the statements below. Put your initials in the space next to the appropriate statement and sign where indicated.

✓ I agree to participate in the usability testing session and grant the student group known as Creative Design Paradigms the permission to videotape my session for the purposes mentioned above.

___ I agree to participate in the usability testing session but do NOT wish to have my user testing session videotaped.

Please PRINT your name: Liakos

Signature: [Signature]

Date: 3-11-02

Appendix D: Signed Consent Forms - User2
Usability Testing Consent Form

Thank you for agreeing to participate in our usability testing. With your permission, we would like to videotape your session to allow us to analyze the way users interact with the system we have designed. This will help us to improve our design and make the system easier to use. We may share our findings and videotape during class activities.

Please read the statements below. Put your initials in the space next to the appropriate statement and sign where indicated.

[ ] I agree to participate in the usability testing session and grant the student group known as Creative Design Paradigms the permission to videotape my session for the purposes mentioned above.

[ ] I agree to participate in the usability testing session but do NOT wish to have my user testing session videotaped.

Please PRINT your name: GEOFFREY H PAN616AC
Signature: GEOFFREY H PAN616AC
Date: MAR 02

Appendix D: Signed Consent Forms - User3
Pretest Questionnaire

Name: Kara Rilloso

Position
- ☑ CNL
- ☑ Staff RN/LPN
- ☑ Schedule Coordinator
- ☑ PCT/EMT
- ☑ Unit Associate

Average number of hours worked weekly
- 0-10 hours
- 11-20 hours
- 21-30 hours
- 31-40 hours
- 41 and Above

Time spent on schedule process
During one month, how much time do you spend dealing with the work schedule?
[ ] 12 hour

Gender
- ☑ Male
- ☑ Female

Age
- 18 And Under
- 19-29
- 30-39
- 40-49
- 50-59
- 60 and Above

Educational Background
(mark all that apply)
- High School Diploma
- Associates Degree
- Bachelor's Degree / Major
- Master's Degree / Major
- PhD / Major
- LPN
- [ ] Certifications

Physical Characteristics
(mark all that apply)
- Right Handed
- Left Handed
- Vision Impairments
- Color Blindness
- Hearing Impairments
- Mobility Impairments
- Others

Learning Style Preference
- Audio
- Visual
- Kinesthetic and Visual Combined
- Other - Describe

Computer Experience
- ☑ Less than 1 year
- ☑ 1-5 years
- ☑ 5-10 years
- ☑ 10 years or more

Attitude towards computers
- Positive
- Neutral
- Negative

Software that you're comfortable using
- Microsoft Word
- Microsoft Excel
- Microsoft Outlook
- Microsoft Access

Operating System(s) you have used
- Windows 95
- Windows 98
- Windows 2000
- Windows XP
- Unix
- [ ] (mark all that apply)

Internet Experience
- Internet Explorer
- Netscape

Email Experience
- Yes
- No

Computer hardware you're comfortable using
- Keyboard
- Mouse
- Printer
- Headset
- Light Pens
- Touch Screen
- Microphone
- Scanner

Please tell about any other computer experience/knowledge
________________________________________________________________________
________________________________________________________________________
Pretest Questionnaire

Name: Lil Baker

Position
- [ ] CNL
- [ ] Schedule Coordinator
- [ ] Staff RN/LPN
- [ ] PCY/EMT
- [ ] Unit Associate

Average number of hours worked weekly
- [ ] 0-10 hours
- [ ] 11-20 hours
- [ ] 21-30 hours
- [ ] 31-40 hours
- [ ] 41 and Above

Time spent on schedule process
During one month, how much time do you spend dealing with the work schedule?

- [ ] 22 hrs

Gender
- [ ] Male
- [ ] Female

Age
- [ ] 19 And Under
- [ ] 20-29
- [ ] 30-39
- [ ] 40-49
- [ ] 50-59
- [ ] 60 and Above

Educational Background
(mark all that apply)
- [ ] High School Diploma
- [ ] Associates Degree
- [ ] Bachelor's Degree / Major
- [ ] Master's Degree / Major
- [ ] PhD / Major
- [ ] Certifications
- [ ] ACS, PALS

Physical Characteristics
(mark all that apply)
- [ ] Right Handed
- [ ] Left Handed
- [ ] Vision Impairments
- [ ] Color Blindness
- [ ] Hearing Impairments
- [ ] Mobility Impairments
- [ ] Others

Learning Style Preference
- [ ] Audio
- [ ] Visual
- [ ] Audio and Visual Combined
- [ ] Other - Describe

Computer Experience
- [ ] less than 1 year
- [ ] 1-5 years
- [ ] 6-10 years
- [ ] 10 years or more

Attitude towards computers
- [ ] Positive
- [ ] Neutral
- [ ] Negative

Software that you're comfortable using
- [ ] Microsoft Word
- [ ] Microsoft Excel
- [ ] Microsoft Outlook
- [ ] Microsoft Access

Operating System(s) you have used
(mark all that apply)
- [ ] Windows 95
- [ ] Windows 98
- [ ] Windows Me
- [ ] Windows 2000
- [ ] Windows XP
- [ ] DOS
- [ ] UNIX
- [ ] MAC O/S

Internet Experience
(mark all that apply)
- [ ] Internet Explorer
- [ ] Netscape

Email Experience
- [ ] Yes
- [ ] No

Computer hardware you're comfortable using
(mark all that apply)
- [ ] Keyboard
- [ ] Mouse
- [ ] Printer
- [ ] Headset
- [ ] Light Pens
- [ ] Touch Screen
- [ ] Microphone
- [ ] Scanner

Please tell about any other computer experience/knowledge

 graphics programs
Pretest Questionnaire

Name: GEOFFREY PANOBIA

Position
○ CNL
○ Staff RN/LPN
○ PCT/EMT
○ Unit Associate

Average number of hours worked weekly
○ 0-10 hours
○ 11-20 hours
○ 21-30 hours
○ 31-40 hours
○ 41 and Above

Time spent on schedule process
During one month, how much time do you spend dealing with the work schedule?

Gender
○ Male
○ Female

Age
○ 19 and Under
○ 20-29
○ 30-39
○ 40-49
○ 50-59
○ 60 and Above

Educational Background
(mark all that apply)
○ High School Diploma
○ Associates Degree
○ Bachelors Degree / Major NURSING
○ Masters Degree / Major
○ PhD / Major
○ Certifications

Physical Characteristics
(mark all that apply)
○ Right Handed
○ Left Handed
○ Vision Impairments
○ Color Blindness
○ Hearing Impairments
○ Mobility Impairments
○ Others

Learning Style Preference
○ Audio
○ Visual
○ Audio and Visual Combined
○ Other - Describe

Computer Experience
○ less than 1 year
○ 1-5 years
○ 6-10 years
○ 10 years or more

Attitude towards computers
○ Positive
○ Neutral
○ Negative

Software that you're comfortable using
○ Microsoft Word
○ Microsoft Excel
○ Microsoft Outlook
○ Microsoft Access

Operating System(s) you have used
○ Windows 95
○ Windows 98
○ Windows Me
○ Windows 2000
○ Windows NT
○ Windows XP
○ DOS
○ UNIX
○ MAC OS

Internet Experience
○ Internet Explorer
○ Netscape

Email Experience
○ Yes
○ No

Computer hardware you're comfortable using
○ Keyboard
○ Mouse
○ Printer
○ Headset
○ Light Pen
○ Touch Screen
○ Microphone
○ Scanner

Please tell about any other computer experience/knowledge

_________________________________________________________________________________________________________________________________________________________________________
F: Post-Test Questionnaire
Name: **Kara Rillos**  
TMC Scheduling System  
Post-test Questionnaire

Please answer the following questions based on your experience using the Scheduling System. Where appropriate, we would appreciate if you would explain your answers in the space provided below the questions.

1. Overall, I found the Scheduling System easy to use. (Circle one)

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
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</tbody>
</table>

2. What did you like best about the Scheduling System? (Please list from 0 to 3 aspects.)

   A. **User friendly**
   B. **Computer knows who you are**
   C. ____________

3. What did you like least? (Please list from 0 to 3 aspects.)

   A. **How to back up if you made a mistake**
   B. **You could replace erase you while schedule**
   C. ____________

4. I found it easy to enter a work schedule on the calendar format screen.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>

5. I found the Scheduling System’s interface (clickable buttons, pull-down menus, pop-up boxes, and dialogue boxes) an easy method for performing scheduling activities.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>

---

Appendix F: Post-test Questionnaire • User1
6. Using the following rating sheet, please circle the number nearest the term that most closely matches your feelings about the Scheduling System.

Simple...........3...2...1...0...1...2...3.........Complex
Easy to use.......3...2...1...0...1...2...3.........Complex to use
Clear...........3...2...1...0...1...2...3.........Unclear
Familiar........3...2...1...0...1...2...3.........Unfamiliar
Friendly.........3...2...1...0...1...2...3.........Unfriendly
Professional....3...2...1...0...1...2...3.........Unprofessional
Helpful...........3...2...1...0...1...2...3.........Unhelpful

7. Please rate the screen organization by circling the term that most closely reflects your opinion.

A. Information was easy to find.

Strongly Disagree    Disagree    Neither    Agree    Strongly Agree
Strongly Disagree    Disagree    Neither    Agree    Strongly Agree

B. I would have organized the material differently.

Strongly Disagree    Disagree    Neither    Agree    Strongly Agree
Strongly Disagree    Disagree    Neither    Agree    Strongly Agree

C. Terminology was clear and precise.

Strongly Disagree    Disagree    Neither    Agree    Strongly Agree
Strongly Disagree    Disagree    Neither    Agree    Strongly Agree

D. I always knew where to go next on a screen.

Strongly Disagree    Disagree    Neither    Agree    Strongly Agree
Strongly Disagree    Disagree    Neither    Agree    Strongly Agree

E. The amount of screen explanation was adequate for performing the tasks.

Strongly Disagree    Disagree    Neither    Agree    Strongly Agree
Strongly Disagree    Disagree    Neither    Agree    Strongly Agree

Appendix F: Post-test Questionnaire - User1
Please add any comments in the space provided that you feel will help us to evaluate the Scheduling System. We would especially appreciate you input on the following topics:

- Functions that are essential and/or unnecessary for your work.
- Aspects of the system that are either better or worse than the current scheduling system used in Emergency Services.
- Features you’d like to see on a future scheduling system.

---

- It is nice to know if you sign up or the schedule is full it will not allow you to book yourself.

---

- Easy to use - if you need extra days you can put "A" (available)

---

- What if 2 people are doing schedule at the same time - can they book your days?

---

Appendix F: Post-test Questionnaire - User1
Please answer the following questions based on your experience using the Scheduling System. Where appropriate, we would appreciate if you would explain your answers in the space provided below the questions.

1. Overall, I found the Scheduling System easy to use. (Circle one)

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither</th>
<th>Agree</th>
<th>Strongly Agree</th>
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</thead>
<tbody>
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</tbody>
</table>

2. What did you like best about the Scheduling System? (Please list from 0 to 3 aspects.)

   A. 
   B. 
   C. 

3. What did you like least? (Please list from 0 to 3 aspects.)

   A. 
   B. 
   C. 

4. I found it easy to enter a work schedule on the calendar format screen.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither</th>
<th>Agree</th>
<th>Strongly Agree</th>
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</tbody>
</table>

5. I found the Scheduling System’s interface (clickable buttons, pull-down menus, pop-up boxes, and dialogue boxes) an easy method for performing scheduling activities.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither</th>
<th>Agree</th>
<th>Strongly Agree</th>
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Appendix F: Post-test Questionnaire - User2
6. Using the following rating sheet, please circle the number nearest the term that most closely matches your feelings about the Scheduling System.

Simple, Complex
Easy to use, Complex to use
Clear, Unclear
Familiar, Unfamiliar
Friendly, Unfriendly
Professional, Unprofessional
Helpful, Unhelpful

7. Please rate the screen organization by circling the term that most closely reflects your opinion.

A. Information was easy to find.

Strongly Disagree Disagree Neither Agree Strongly Agree

B. I would have organized the material differently.

Strongly Disagree Disagree Neither Agree Strongly Agree

C. Terminology was clear and precise.

Strongly Disagree Disagree Neither Agree Strongly Agree

D. I always knew where to go next on a screen.

Strongly Disagree Disagree Neither Agree Strongly Agree

E. The amount of screen explanation was adequate for performing the tasks.

Strongly Disagree Disagree Neither Agree Strongly Agree

Appendix F: Post-test Questionnaire - User2
8. Please add any comments in the space provided that you feel will help us to evaluate the Scheduling System. We would especially appreciate you input on the following topics:

- Functions that are essential and/or unnecessary for your work.
- Aspects of the system that are either better or worse than the current scheduling system used in Emergency Services.
- Features you’d like to see on a future scheduling system.

Quick access to availability on a given day for trades very helpful.

Would this provide the ability to make a daily staffing sheet?

The availability to the working schedule from any computer - great! Both for putting the schedule together & accessing it later.

As a scheduler - the adherence to the pay levels - Thank you!!

Extra shifts - those not filled would be original scheduling - would be an ongoing calendar error.

Database would be helpful since staff is very fluid.

Appendix F: Post-test Questionnaire • User 2
Please answer the following questions based on your experience using the Scheduling System. Where appropriate, we would appreciate if you would explain your answers in the space provided below the questions.

1. Overall, I found the Scheduling System easy to use. (Circle one)

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither</th>
<th>Agree</th>
<th>Strongly Agree</th>
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</tbody>
</table>

2. What did you like best about the Scheduling System? (Please list from 0 to 3 aspects.)

   A. [List what was liked best]
   B. [List what was liked best]
   C. [List what was liked best]

3. What did you like least? (Please list from 0 to 3 aspects.)

   A. [List what was liked least]
   B. [List what was liked least]
   C. [List what was liked least]

4. I found it easy to enter a work schedule on the calendar format screen.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither</th>
<th>Agree</th>
<th>Strongly Agree</th>
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<tbody>
<tr>
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</table>

5. I found the Scheduling System’s interface (clickable buttons, pull-down menus, pop-up boxes, and dialogue boxes) an easy method for performing scheduling activities.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
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<th>Neither</th>
<th>Agree</th>
<th>Strongly Agree</th>
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</table>

Appendix F: Post-test Questionnaire - User3
6. Using the following rating sheet, please circle the number nearest the term that most closely matches your feelings about the Scheduling System.

- Simple: 3. \( \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \) Complex
- Easy to use: 3. \( \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \) Complex to use
- Clear: 3. \( \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \) Unclear
- Familiar: 3. \( \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \) Unfamiliar
- Friendly: 3. \( \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \) Unfriendly
- Professional: 3. \( \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \) Unprofessional
- Helpful: 3. \( \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \) Unhelpful

7. Please rate the screen organization by circling the term that most closely reflects your opinion.

A. Information was easy to find.

Strongly Disagree Disagree Neither Agree Strongly Agree

B. I would have organized the material differently.

Strongly Disagree Disagree Neither Agree Strongly Agree

C. Terminology was clear and precise.

Strongly Disagree Disagree Neither Agree Strongly Agree

D. I always knew where to go next on a screen.

Strongly Disagree Disagree Neither Agree Strongly Agree

E. The amount of screen explanation was adequate for performing the tasks.

Strongly Disagree Disagree Neither Agree Strongly Agree
8. Please add any comments in the space provided that you feel will help us to evaluate the Scheduling System. We would especially appreciate you input on the following topics:

- Functions that are essential and/or unnecessary for your work.
- Aspects of the system that are either better or worse than the current scheduling system used in Emergency Services.
- Features you’d like to see on a future scheduling system.

I liked the Trade function. I gave multiple choices for availability.
G: Chauffeured Prototype
(Selected screen images and attached package of prototype folders)
### Scheduling System

#### Scheduling Period Beginning: February 24th

<table>
<thead>
<tr>
<th></th>
<th>SUNDAY</th>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
<th>THURSDAY</th>
<th>FRIDAY</th>
<th>SATURDAY</th>
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<td>23</td>
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</tbody>
</table>

**Key**
- W: Work
- E: Hospital Education
- P: Paid Time Off
- A: Available to Work
- R: Requested Day Off

**Problems? Contact Help Desk at 324-1212**

© Design by CDP
Instructions

Appendix G: Chauffeured Prototype - Instructions
RN's available to work March 8, 2002:
Click on an email address to open an email to that person.

<table>
<thead>
<tr>
<th>Name</th>
<th>Email Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joe Brown</td>
<td><a href="mailto:joe.brown@tmcaz.com">joe.brown@tmcaz.com</a></td>
</tr>
<tr>
<td>423-7865</td>
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<td>Nancy Smith</td>
<td><a href="mailto:nancy.smith@tmcaz.com">nancy.smith@tmcaz.com</a></td>
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Appendix G: Chauffeured Prototype - Availability List
Trade Notification

Replacement Worker: Brandy Moore will work for Brandy Moore.

Trade month: March
Trade shift: 7am-4pm
Day: 1
Year: 2002

Fill in second half IF you are working for your trade partner:

Brandy Moore will work for [ ] [ ] [ ] [ ]

Trade month: March
Trade shift: [ ]
Day: [ ]
Year: [ ]

SEND

Problems? Call HelpDesk at 324-1212.
Take away from user testing

Greeter: Monna
Facilitator: Monna
Computer: Chris
Observer: Lynn
Cameraman: Gui

Greeter:
- Welcome user, explain a purpose of this test, and tell them have to complete 3 scenarios
- Let user sign the consent form that they agree to videotape during the testing session or not.
- Let user to fill out the questionnaire

Facilitator:
- Let the user know that we will conduct the test with three scenarios, one at a time
- Explain to them that we can not provide assistant and answer the questions during the test
- Encourage them to “think aloud” while they are taking the test
- Explain to the user all the buttons on the screen
- Conduct the test
  After the test, let them to answer the posttest questionnaire to evaluate the system

Computer:
- Provide the appropriate screens to the user

Observer:
- Take note during the test, take user’s suggestions and user reaction with the system.

First user on Mar 10, 2002 at 4:00Pm
Name: Kara Rillos
Title: Nurse
Age: range 30-39
Computer experience: at least 1 year

During the test:
User:
Scenario 1
- User read the scenario 1
- At first, she is unsure to click on or mark on the date to start, take her a little bit time to figure out “click the date to start”.
- User has hard time to find out the month between Feb and Mar on the calendar, calendar is very confusing the user
- She can not figure out WEPAR: she is unsure why she has to click on each word
- User confuses when W, E, P, A, R is highlighted and continues to click on the highlighted work to start another date
  Drop down menu makes user confusing

Appendix H: Raw Data - Observer Notes
- On Mar 1, we miss an option for “Hospital Education”, user confuses and tries to hit “back button”, (we do not provide the screen for back button).
- User gets hard time to recognize the area and the shift "MEC"

Scenario 2
- User read the scenario 2
- User does not understand what “Par Level” means (for those who are not doing the schedule)
- Confusing about the reports, user tries to check the date, the area, and the shift on the report.(the scenario does not require this step)

Scenario 3
- User read the scenario 3
- User requests to have the email screen so she can send an email to the person she wants to trade.
- User makes a mistake about the trade, need back button to go back the previous screen or error message to help use get out the mistakes
- A little confusing about the “shift”, scenario is not clear for the shift 8am-4pm and 4Pm-midnight shift.

Computer:
- Give the user the wrong screen on the first scenario

Question from the first user
What if two people are working at the same time?

Second user on Mar 11, 2002 at 1:00Pm
Name: Lil Baker
Title: Schedule Coordinator
Age: range 40-49
Computer experience: at least 1 year

User:
Scenario 1
- User read the scenario 1
- User does not read the message to explain why she has to click on the words WEPAR
- Take a little bit time to figure out the “Close” button on the pop up message about the WEPAR
- User click on W after it is highlighted instead of clicking the next day, it is wrong
- Confusing about "E" letter
- User is talking to herself while she is taking a test
- She requests to have a printout of the schedule

Scenario 2

Appendix H: Raw Data - Observer Notes
User read the scenario 2
- Take a little bit time to recognize the report button on the menu bar

Scenario 3
- User read the scenario 3
- User requests an email screen to send an email to trader and close button on the employee’s list while she is making a trade.

Question from the second user
What would change the screen after user clicks send?
- User prefers to send confirmation notice to supervisor
- What if the conflict happened between two traders.(I was not sure what she meant by asking this question, Anybody got this idea)
- Need confirmation notice between two traders

Computer:
- Forget to show Feb 26 working day Sam-4pm
- Forget to provide “Hospital Education” on the calendar

Third user on Mar 11, 2002 at 3:30Pm
Name: Geoffrey Pangrac
Title: Nurse
Age: range 40-49
Computer experience: at least 1 year

User:
Scenario 1
- User read the scenario 1
- In order to choose PTO, need to find the way to copy or drag information over instead of click day by day

Scenario 2
- User read the scenario 2
- Print the report, need to provide the “feed back” for the printout

Scenario 3
- User read the scenario 3
- At first, user clicks the “report” button instead of click on “trade” button on the menu bar, it is wrong and he clicks on help button, user requests to have “help” information in case he makes a mistake.
- He also suggests to have an email screen pop up in order to send an email to the trader.

Computer:

Appendix H: Raw Data - Observer Notes
J: Video Tapes of Chauffeured Testing Sessions
(in attached package)