Component 7, Unit 5: The Effective HIT System – What Does It Matter?

About the (Optional) Orientation Videos:

Part 1: Simple Interface Adjustments Font Size & Presentation Order
Part 2: Created a User Specific View with Graphing

Videos are provided as files with a .swf extension. These .swf files are designed to be opened in all major web browsers. If the file does not open in your browser you can download a free .swf player at the Adobe site:
http://www.adobe.com/products/flashplayer/

Step-by-step instructions for completing the activities are provided below for those who do not prefer to view the .swf files.

Instructions for the Activities

Activity 1

Students will observe several short videos that will orient them to adjusting aspects of the CPRS interface to accommodate user requests for data display. Features built into the VistA CPRS that can be used to facilitate ease of use will be demonstrated. These videos will prepare students to participate in a learning activity applying the concepts provided in the lecture material in hands on lab experiences.

Activity 2 – Hands-on

In this assignment, students will interact with the CPRS system, examining features that can improve usability, increase situational awareness, and identifying areas for improvements. The focus of this unit is not upon knowledge of clinical nuances, since not all students will have clinical experience. The focus of this exercise is upon understanding basic configurability of the user interface designed to facilitate adaptation to user preferences and improvement of usability. Students are strongly encouraged to watch the orientation videos associated with unit 5 prior to completing the assignment.

Assignment: Keeping in mind the deliverables, - as students walk through this exercise, they should:

- Capture their work for submission to their instructor. Options for doing this may include using the print screen function (with a cut and paste to a document file), CNTRL-C & CNTRL-V, or certain software applications such as Screen Print & Capture 32, SnagIT, CaptureWiz, etc. Many actions have a “PREVIEW” button which an optimal place for students to do a cut and paste of their work. Students should check with their instructor for submission requirements.
- Students are to refrain from entering unprofessional data, remembering that all entries are linked to their login. **Data approximating reality is close enough** – as it is understood that not all students have a clinical background.

- The deliverables for this assignment are highlighted below.

The scenario:

Users have approached you and voiced their desire to have specific interface views created to facilitate their workflow. Specifically:

a) A change from the automatic presentation of a patient record with the cover sheet as the default view to another tab has been requested by several users.
b) A personal view, in graph format, has been requested by an individual user. The user wants to save the personal view so she can reuse it across all of her patients from time to time. This will save her from having to re-create the view each time she wants this specific display.
c) A user with visual difficulties is complaining that the font size is too small for him to be able to visualize. He has requested that you help him to make it more visible.

In these hands-on exercises, you will learn how to accommodate these types of requests. It is assumed that students will explore while learning this functionality. There are many additional features which can be used to enhance the output for submission to the instructor. Basic function is detailed below.

NOTE: VistA has greater functionality for display configuration using the may different configuration tools via the GUI interface and putTY with the configuration tools in "roll and scroll" (command line level work). Component 7 – Working with HIT Systems – does not explore at this depth. Students are referred to Component 11 "Configuring EHRs" for that level of configuration activity. This unit will focus upon basic user level changes that can be made within the interface itself which allows for changes in display based on simple user requests.

STEPS:

From within the VistA system, select Eight, Patient and open his record.

1. To change the font size to accommodate user preferences:

a. Choose EDIT from the toolbar
b. Choose PREFERENCES
c. Choose FONT
d. Adjust the font size to different sizes.
   i. Adjust the coversheet (using click and drag in cells) to accommodate the new sized font. Experiment until you arrive at a layout that balances between font size and view-ability. In example, large fonts will run over the edges of the cell, preventing the user from viewing portions of data. This is an example of where improving one factor of usability may cause an unintended usability consequence elsewhere.
   ii. Click through all of the tabs (problems, meds, orders, etc.) to examine the

downstream effect of the change.

iii. Change patients – pick another inpatient from the available patient list. **Do not sign any orders** if you are presented with the opportunity to do so as you try to change patients.

iv. Were the adjustments you made for Patient Eight retained for your new patient? Does the optimal view for Mr. Eight translate into the optimal view for other patient records in all tabs? In a few short sentences, detail how you would explain the potential trade-offs of font size versus the need for increased scrolling to a very novice computer user.

v. Return to Mr. Eight. Adjust the font size and view screen for the cover sheet and the order sheet to be optimal for you. Capture and save both of these screens for submission to instructor.

2. To change the default presentation order when opening the CPRS

a. Choose "TOOLS" and "OPTIONS" from the upper toolbar.

b. From the popup dialog box, choose "GENERAL" and "OTHER PARAMETERS"

c. Change the field for "Initial tab to display when CPRS starts". Choose any field except cover sheet, but be thinking of a rationale for why this might be the first view that a given user would want to see. Choose ok, then ok again to get back to cover sheet view of Mr. Eight.

d. To apply the edit, you must exit CPRS and log back in.

e. Verify that your start up view is now representative of the field that you specified prior to exiting. If not, repeat the prior steps. You must log out and log back in for the change to apply. Capture the screen that shows the new default presentation order for submission to the instructor. In 2-3 short sentences, create the "ask" that the user presented which influenced your rationale/choice of the new default presentation order (from 2c.)

3. To create a user defined view involving the graphing function:

a. From within Mr. Eight's chart, Choose "TOOLS" and "OPTIONS" from the upper toolbar.

b. From the popup dialog box, choose "GRAPHS" and "VIEW DEFINITIONS".

c. Explore the box that pops up. Scroll down in the "Sources" box and choose "problems" or "orders" or…….. Determine the difference between "Select Items Using All Items" and "Select Items Using Patient Items".

d. To create a graph –items must be selected for which values exist. For example, you cannot graph data points if there is no data! This points back to 3c, above.

e. Under "Sources" choose *Blood Pressure, Weight, Hemoglobin A1C, and Body Mass Index* (only, nothing else). You will need to transfer the items that you want to graph into the "Items for Graphing" box.

f. Choose "Save Personal" box, and save your personal view with your initials.

If you have saved your personal view before and are editing, it is ok to overwrite your old existing file (since you are editing it) with your new personal view.

g. Choose “Close” and “OK”.
h. Refresh your patient view by clicking “file” and “refresh patient information” in the upper right hand toolbar.

4. Click the REPORT tab at the bottom of the screen.
5. Click “Graphing (local only)” to display your custom graph. In the graphing window, find the “View” tab. The “Items” tab and the “View” tab are side by side.
6. Click the view tab in the graphing area, find your personal view (saved with your initials in 4c. above) and select it.
7. Set the date range to 1 year.
8. A graph will display. Check and uncheck “Individual Graphs”. Observe the difference. Capture an image of the graph with individual graphs checked and unchecked and save your work for submission. In a brief paragraph, explain when and why it might be best to display data in separate graphs versus a single consolidated graph.

Students should ask their instructor for directions on how to submit the assignment.

Additional guidance for utilizing the VA CPRS system can be found in the Vista CPRS Users Guide:

- Part One– Simple Interface Adjustments, Font Size & Presentation Order: Students can find written guides for these types of adjustments in the CPRS User Guide provided as part of Component 7. Adjusting font sizes is part of Appendix A: “Accessibility for Individuals with Disabilities” beginning on page 376. The option to change the presentation order of the cover sheet begins on page 127.

- Part 2: Creating a User-specific View with Graphing: Students can find written guides for these types of adjustments in the CPRS Users Guide provided as part of Component 7. Instructions begin on page 72 and again on page 375.

Please note that the instructions in the video file may not correspond exactly to the manual. The printed manual may use different patient names and reflect a few minor differences from the video tutorials.