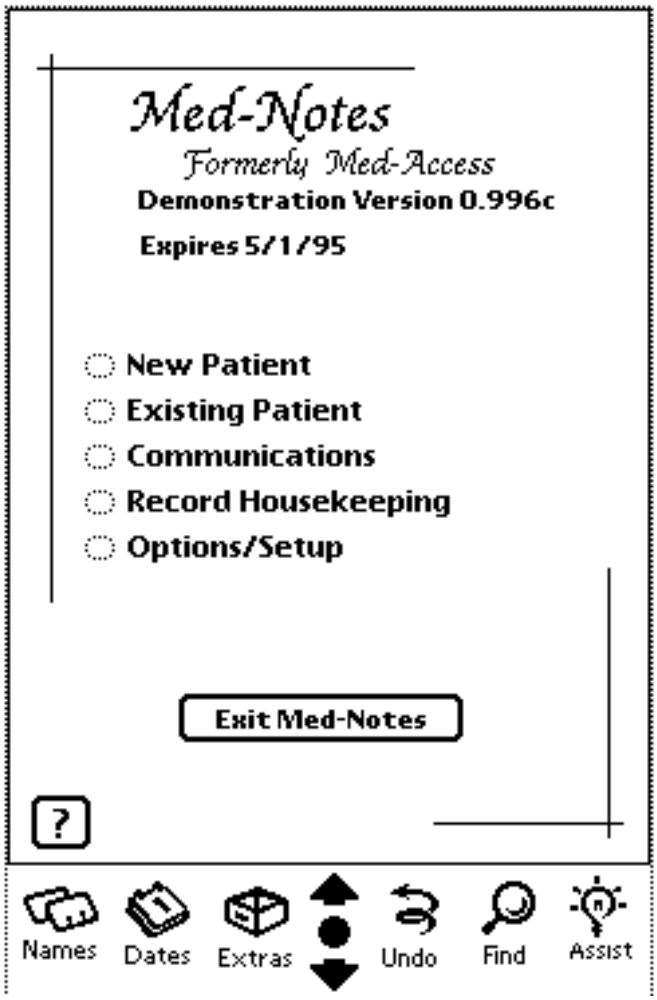
Med-Notes User's Guide

Version 1.3

Medical
Software for Apple Computer's
Newton
Personal Digital Assistant

Copyright 1994 and 1995
ProAccess Systems Inc.
2004 Pompton Dr.
Austin, Texas 78757
(512) 458 1855 voice and fax
Internet: john2004@proaccess.com


Med-Notes
Formerly Med-Access
Demonstration Version 0.996c
Expires 5/1/95
New Patient
Existing Patient
Communications
Record Housekeeping
Options/Setup
Exit Med-Notes
?
Names
Dates
Extras
Undo
Find
Assist

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Quick Start:

(Required)
Run MedNotesData first.
Install three kinds of data. Demo Patients, Word lists , and Help System.
You can remove the demo patients and help system when you get familiar with the program.

Run Med-Notes.
(Optional)
Personalize the Physicians list with your name in the Options/Setup screen.
Personalize the Patient Location list in Options/Setup screen. All new patients must be assigned to an existing location in this list.

Introduction

Thank you,
We hope that Med-Notes will significantly improve your handling of patient data.

We want to insure that your introduction to the Newton PDA (Personal Digital Assistant) and to our program, Med-Notes, is as painless as possible. You may have seen our original program which was named Med-Access. Med-Notes is a substantial upgrade and replaces that older program.
Please read the enclosed Software License for this product. Using this product implies that you have agreed to the conditions of that license.

If you already have a Newton PDA and understand how to use it, then you have two choices:

1) Med-Notes Training Session:
Go to Section 2.0 and - using sample data - begin a walk-through of the use of Med-Notes. Patient data will be entered and all functions explained in detail while you use the PDA.

2) Just Use It (and refer back to the User's Guide when needed):
Most of the program should be obvious if you already know the Newton, but there are more details that you may miss. Remember there is a "Help" system built into the Med-Notes program that can explain most details. To use the Help system, tap on the "?" button and then tap on the object you want information about - such as a button or data entry field.

If this is your first exposure to the Newton, then there are a handful of concepts and skills in using the Newton that you must have to get value from the program. We believe that you can save a lot of time and frustration by absorbing these simple concepts. After that, Med-Notes will be much easier to use.

You will see text highlighted in bold text (as this text is highlighted) - that is text of immediate value to this walk through training exercise. This highlighted text will lead you through the training. The rest of the text is support information that you can read now or as needed. Go on to the next section to learn a set of fundamentals concepts about the Newton PDA.

Section 1.0 Fundamental Newton Concepts

The Newton PDA has software programs built-in as well as other application programs installed - such as Med-Notes - that are added to the Newton for special purposes.

All interaction with the PDA happens by tapping on the screen with the stylus or by writing words on the screen. Buttons appear on the screen - often with labels - and can be pushed by a tap from the stylus. Most buttons turn black when they are "pushed".

Programs run by opening "windows" on the screen of the PDA. These windows are stacked one on top of another as you open more than one program. At the bottom of the stack, the Newton always has its own pad-of- paper called the Note pad. The Note pad is always down there at the bottom even when other programs cover it up with their own windows. Usually, the last program you opened will be on top. If the window is not as big as the screen you will be able to see windows "below" it, or maybe just the Note pad.

Programs are represented as small pictures called icons. You start a program by tapping on the icon. Icons are "stored" in an electronic drawer called "Extras". You can see the programs you have available by tapping on the "Extras" button at the bottom of the screen. Another tap will close the drawer.

You have two ways to write a word to enter data into a Newton program.
1) .The Newton can "recognize" your handwriting if you write clearly and write and you learn how the Newton recognizes letters.

2) You can call up a small keyboard and tap out the letters by hand. Tap twice in the same place to display the keyboard. This works surprisingly well.

Close windows either by tapping on a labeled button or by tapping on the small black X in the lower right hand corner of a window.

The Newton can fax or print information if you connect the modem or printer to the Newton by inserting a cable from the device into the right side of the Newton. The cable is mechanically designed so that it inserts in only one way. The flat side on the cable connector needs to be rotated toward the screen side of the Newton. Be gentle as you insert the cable.

Section 2.0 Installation

To prevent problems from low memory during installation, you can download the data installer program first, do the installation, remove the installer and then download the main Med-Notes program. Usually it will work fine to download both programs, do the installation and then begin using Med-Notes.

It is recommended that you reset the machine both before you begin the installation and after the installation is successful. This will reduce the likelihood of incomplete installations due to lack of available memory, and will prepare the machine for proper functioning after the installation.

To begin the installation, download the MedNotesData program to the Newton. The program icon is a black medical bag and is named "NSTALL Med Data" . Tap on it to start the installer.

You will see a screen as shown below. The three numbered buttons are essential to run the main program. Tap them in order and give them time to do their job.

The first button - "Install DEMO Patient Data" - will set up the data storage and add two patient records for examples. You can remove them later, but they must be installed first.

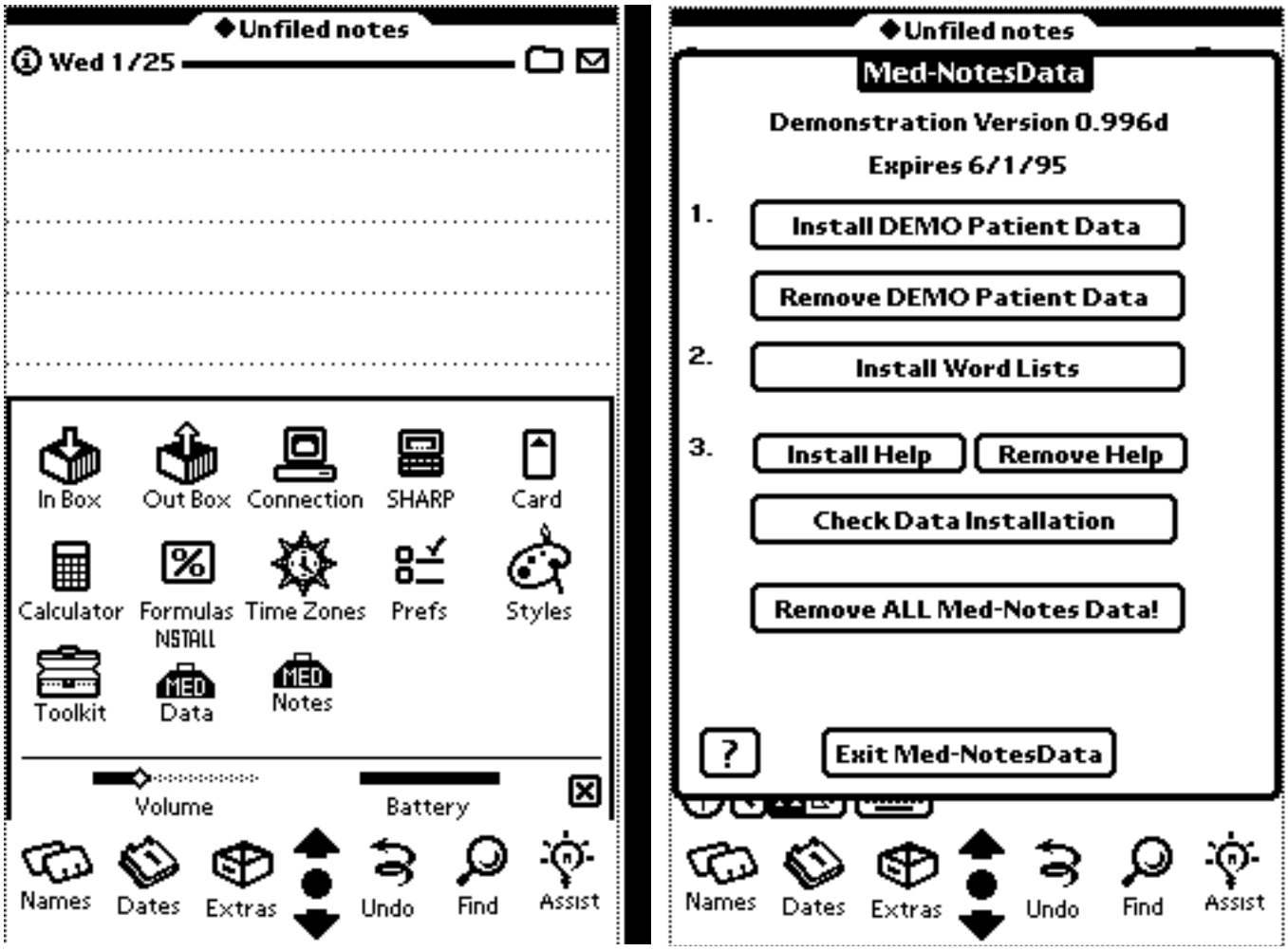
The second button installs the required word/phrase lists. There are 143 lists, so it will take several minutes to finish the installation. If your Newton stops before completion and requests that you reset the machine due to low memory, then you may have to remove all data and start over.

The third button installs the Help system. It is not required but is recommended during the first hours of use. The help system can be removed by the button on the right. The help system uses approximately 50k of the user RAM. That can be regained by removing the Help system.

The button labeled "Check Data Installation" is provided to diagnose problems and to verify that the installation is complete. If the Newton has to be reset during the installation, there is a chance that some lists were not installed. We believe that most installations will not need to use this function, but it is provided for safety.

The "Remove ALL Med-Notes Data" button is used to clear the machine when uninstalling Med-Notes or when restarting an installation that is corrupted. Always start with a clean machine when doing an installation.

Notice the "?" button in the lower left corner. This is the Help system. You can get an explanation of any item on the screen by first tapping the ? button and then tapping the object in question.



A view of the Newton's screen with both programs closed is shown on the left. The two icons that look like small black medicine bags are the installer(NSTALL Med Data) and the main program (Med-Notes). The main screen is shown on the right, after launching the data installer, The three numbered buttons are the essential steps in an ordinary installation. First install the patients, to set up the data storage, then the word lists to provide functionality to the program and finally, the Help system. You can remove the Demonstration patients and the help system, but be sure and load them first to properly set up the system.

Section 3.0 Med-Notes Training Session

Our goals are to enter patient data into Med-Notes and then fax those records to your office fax machine.

Sample patient data:
(new patient - 1st encounter)
Jim Jones, male, admitted to the Emergency Room today,
Subjective: Back Pain +, Headache, Rhinitis
Objective1: BP 130. Pulse 80, Temp 98.8, Height 5'5", Weight 200 lb.,
Assessment1: Back ache: obese & inactive, Headache & Rhinitis: allergies
Plans1:Weight Loss program, Entex LA b.i.d.
Lab1: Sed Rate , CBC ; Rx1: Entex LA b.i.d.
(Exisiting patient - 2nd Encounter)
Subjective2: Rhinitis
Objective2: Weight 200 lb, ENT: Rhinitis -
Assessment2: Allergies -,
Plans2: continue Weight Loss program, Entex LA b.i.d.

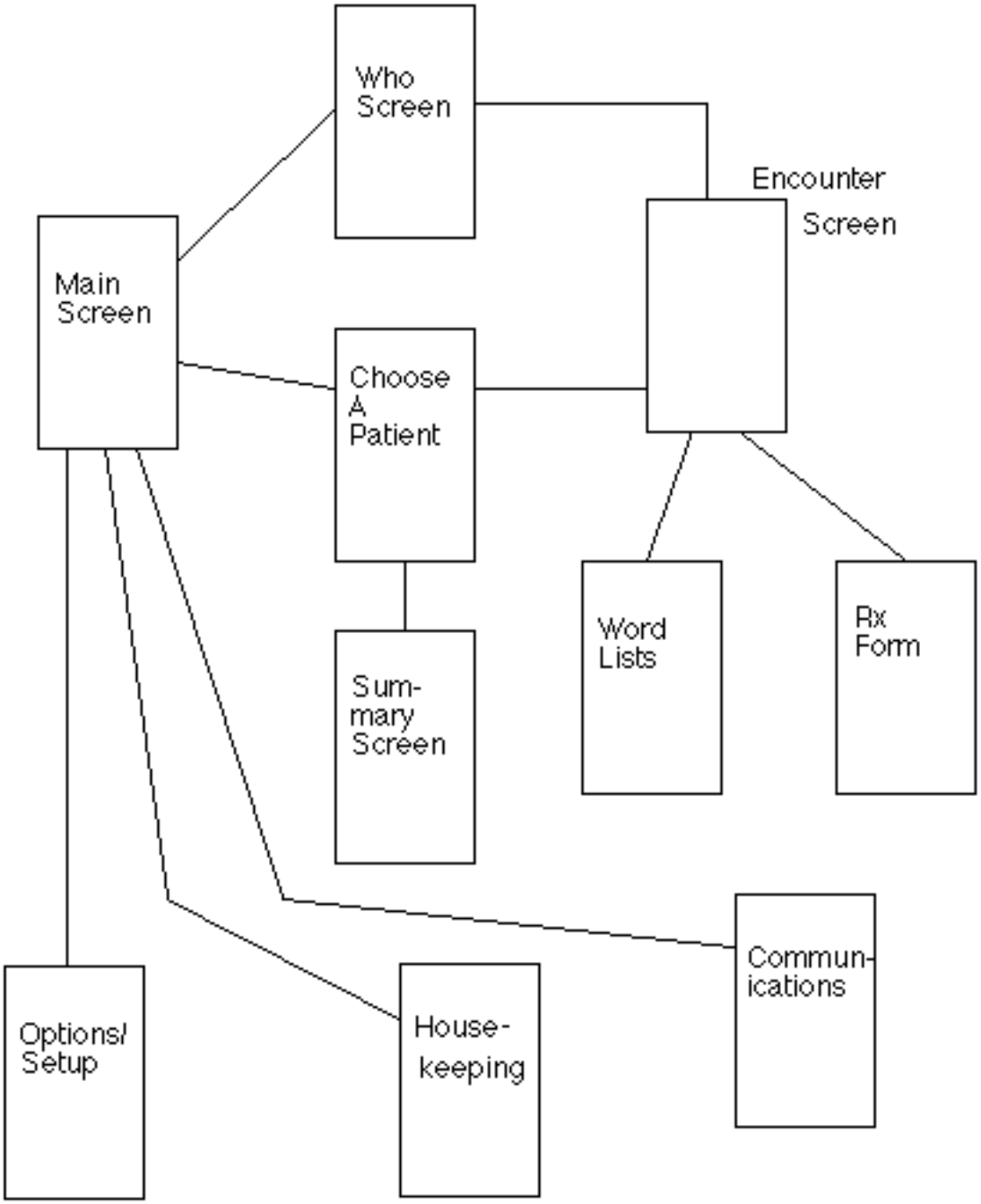
We assume that you have installed Med-Notes on your PDA and are ready to use it.

Turn on the PDA. There is a slide button on the left side. Pull it toward you to turn the PDA on and off. After a few seconds you may see a small window labeled "Storage Card" pop up on the screen. Close it by tapping the X in the lower right hand corner.

Tap the "extras" button at the bottom of the screen. You should see a "drawer' extend out onto the screen with many small pictures. (icons) arranged in rows. This is the "Extras" drawer, and this is where all your programs are stored. Find the icons that look like small black medical bags.. One is named "Med-Notes" and the other is labeled "Install Med Data". (Install Med Data was used to install custom word lists, Demo patients and the Help system that are used by the Med-Notes program)

Tap the icon for the Med-Notes program. You will see the program icon change and then Med-Notes will take over the screen

Program Overview
This is an overview of the program in terms of the different screens you will see. You can find the Options/Setup screen at the lower center of the picture. You are at that screen now. You came from the main screen and you can go back to the main screen.
This overview is here to give you a sense of how you can move about the program. Most screens are only accessible from the main screen. The screens each have a distinct function that is not shared by any other screen. For instance, you can not delete a patient record unless you are in the screen devoted to that function - namely the Housekeeping screen



Med-Notes Overview.

Main Menu

The Med-Notes program has opened and the screen should resemble this page.

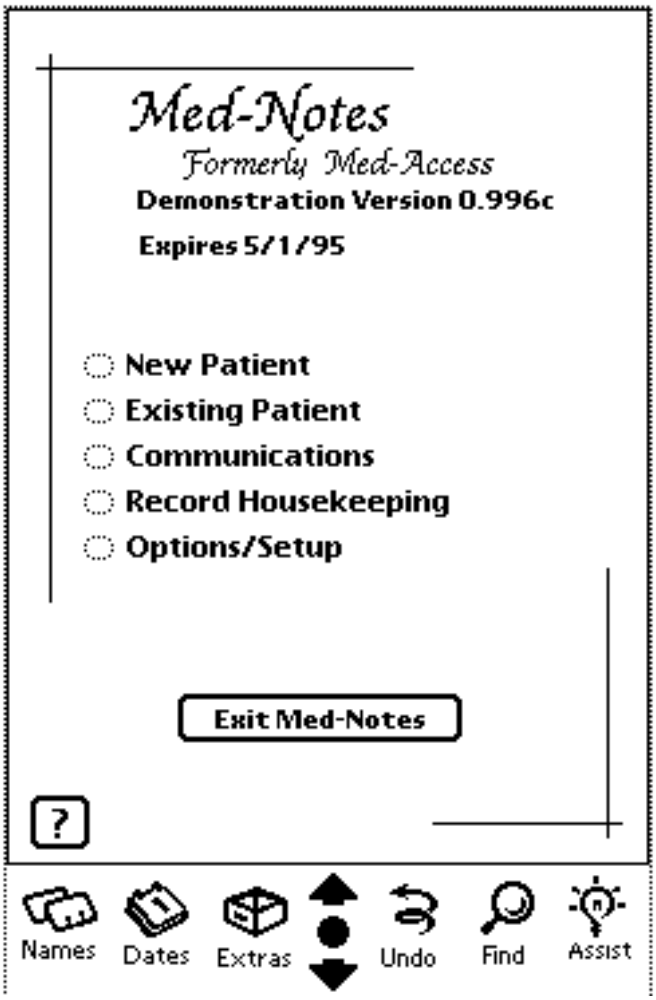
If it does not look like that, then you probably tapped the wrong icon. Try to close any windows by tapping the small X in the lower right corner.

This screen offers choices for all of the major actions that are available in Med-Notes.

Help System:
Notice the button with the "?" label in the lower left corner of the screen. That is the Help button. You can tap that button and then tap any other object on the screen - such as a button - and get a brief description of the object and what it does.
At the moment, we need to set up or configure the program before we start entering patient data. So, we are going to tap "Options/Setup" to go to the part of the program where we can customize the program.

1. First to set up Med-Notes for personal use:
Add your name and names of physicians with whom you work to the Physician List. Add the locations of where you see patients to the Medical Locations List

Tap Options/Setup and go on to the next text page.



Med-Notes Main screen. This screen appears each time you start Med-Notes. The buttons in the center of the screen give you the basic choices in the program.

In New Patient, you can create a new patient and their records.
In Existing Patient, you can open an existing patient and see the old records.
In Communications, you can print, fax or backup the new or modified records.
In Housekeeping, you can delete or move records.
In Options/Setup, you can edit quick pick word lists to contain your custom words.

Note the "?" button at the lower left corner. This is the Help system that is available throughout the program. Tap this button and then tap any object on the screen to get an explanation of that object. If the Help system is not installed, of course the information will not be available.

Options/SetUp Screen

The Option/Setup form lets you edit the 143 word lists that are used in the program. You can also edit the word lists on a desktop computer and download them to the Newton. (This will be available in the final product).

Types of Edits that can be accomplished:
Edit General Lists - There are 15 general lists that can be edited. Examples: Primary Physicians, Fax Destinations, Patient Medical Locations, etc.

Edit Chief Complaint Names - There are 16 possible chief complaint categories. You can edit the names of those categories.

Edit Medical Word Lists - This choice allows editing of the contents of the eight lists associated with each of the chief complaints. The names of the eight lists are not editable.

Editing Procedure:
Choose the type of edit using the first black diamond "Edit".
Make selections from the other black diamonds, to select the list to edit. The black diamonds will disappear when they are not needed. If they are there then you need to make the appropriate selection in each black diamond. For example, when editing the CC list names, all other diamonds disappear since only one list is being edited. The list of names will appear in the window. Tap one, edit it on the line and reinsert it into the list. If you choose to edit the contents of the word lists, then you pick "Edit: Medical Word Lists" , then pick a CC name to select the set of lists, then pick the actual list from the third black diamond. The list will appear in the window. Insert new items or edit existing items in the list.

List Modification:

1. Select the list category at the top of the screen by tapping on the black diamond next to the word Edit and pick the type of list - in this case - General Lists item -

2. Open the Physician list by tapping on the black diamond next to Lists to Edit and pick the type of list - in this case - Physicians

This is a list of all the physicians - including yourself- whose patients you monitor. later you can note who the principal physician is for each patient. If you see any names you don't want in the list, tap on that name and then tap on the delete button. The name will be removed from the list.

About
OPTIONS AND SETUP
◆Edit: General Lists
◆List to Edit: Physicians
Your Name Here
Dr John Doe
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
Delete
Insert
?
Return to Main Menu
Names
Dates
Extras
Undo
Find
Assist

The Options/Setup Screen. **Edit button open.**

3. Now, add your own name to the list by writing it on the dotted line just above the delete button.

a. Clear the line by scrubbing out anything that is presently on the dotted line (a scrub is a fast zig-zag motion with the stylus, that passes through the words that you want to erase. If you scrub too slowly the Newton will turn the lines into additional letters)

b. Write your name on the dotted line. (You can try your handwriting in either script or letter by letter. Most likely the Newton will misinterpret the words until it's been "trained " to your writing style. A more reliable alternative is the on-screen keyboard. Tap twice in the place where you want to enter the letters. the keyboard should appear immediately. Make sure that the taps are on the same spot.
c. Tap the Insert button. the name will be entered into the list in alphabetical order,

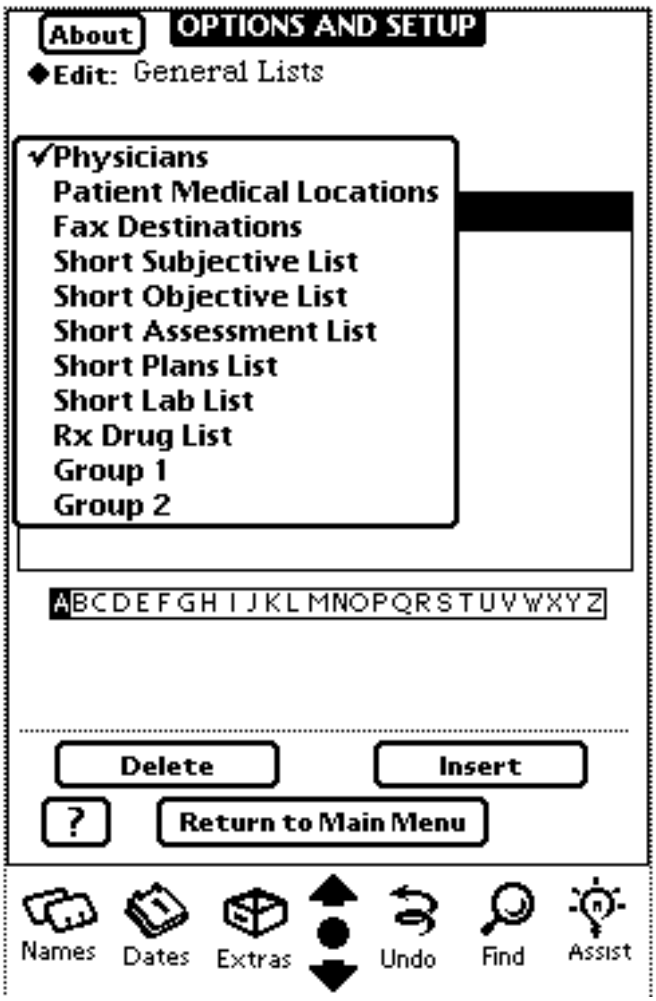
4. Change lists.

a. Tap once more on the black diamond next to Lists to Edit
b. Tap Patient Medical Locations. use the same technique as before to delete and insert all of the medical locations where you see patients. This is for your convenience later in finding patients by where they are located.
c. Tap the black diamond again to select and change additional general lists.

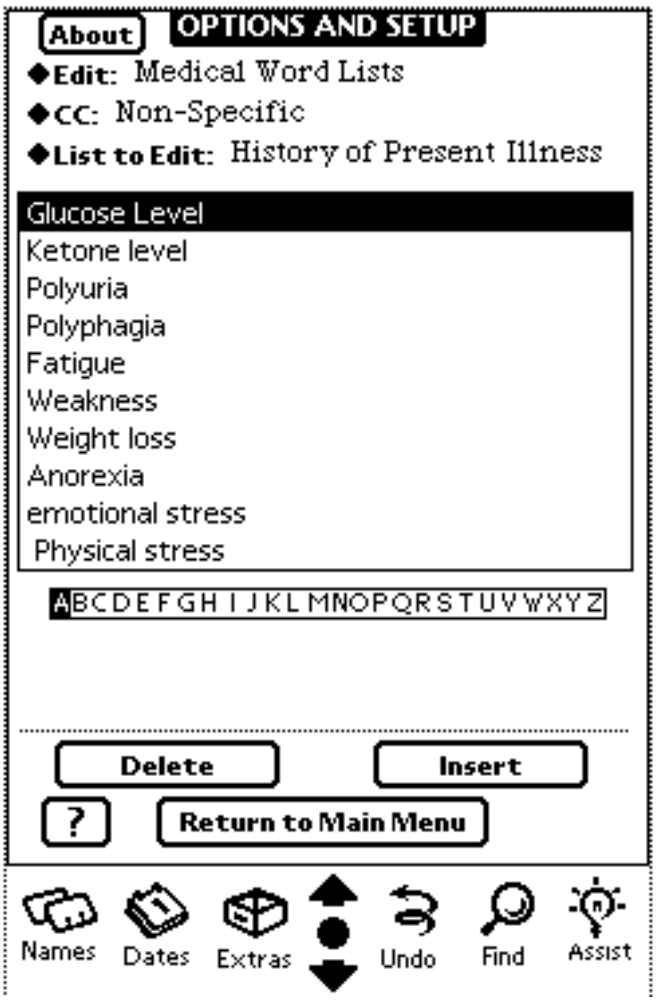
Fax Destinations. a list of names that represent fax numbers that you expect to use. You can enter names now, but the person or place must also be entered into the Newton "Names" cards before the function is alive. See your Newton documentation to set up your "Names" file.

The following popup lists are limited in length to 22 items. They offer immediate access to a small list of terms that are most valuable or needed in the encounter form.
Popup Subjective List. a list of terms that patients use to describe their complaints
Popup Objective List a list of factual terms that physicians use to describe the patients condition.
Popup Assessment List a list of terms that physicians use to convey their conclusions regarding the patients condition
Popup Plans List a list of terms relating to patient treatment plans
Popup Lab List lab tests
Rx Drug List list of prescription drugs that are available in the Rx screen.
Group 1,2 these lists are for your convenience. Enter any set of terms you want to use to classify or annotate patient records.

Close this screen and return to the Main screen. Choose "New Patient" to open a blank record for a new patient.
Go on to the next text page.



The "List to Edit" button open.



A specific Word list being edited.

New Patient Encounter Form - “Who” section

This is the first screen you get when creating a new set of records. We need to enter personal data on the patient mainly for permanent identification. This data will not normally change.

Three pieces of information are required in this form to create a valid record. Those three things are: Last name, First name, and Patient medical location. The location is important only because this program lets you see a list of patients that are assigned to a common location. If this is unimportant to you, then assign everyone to the same place.

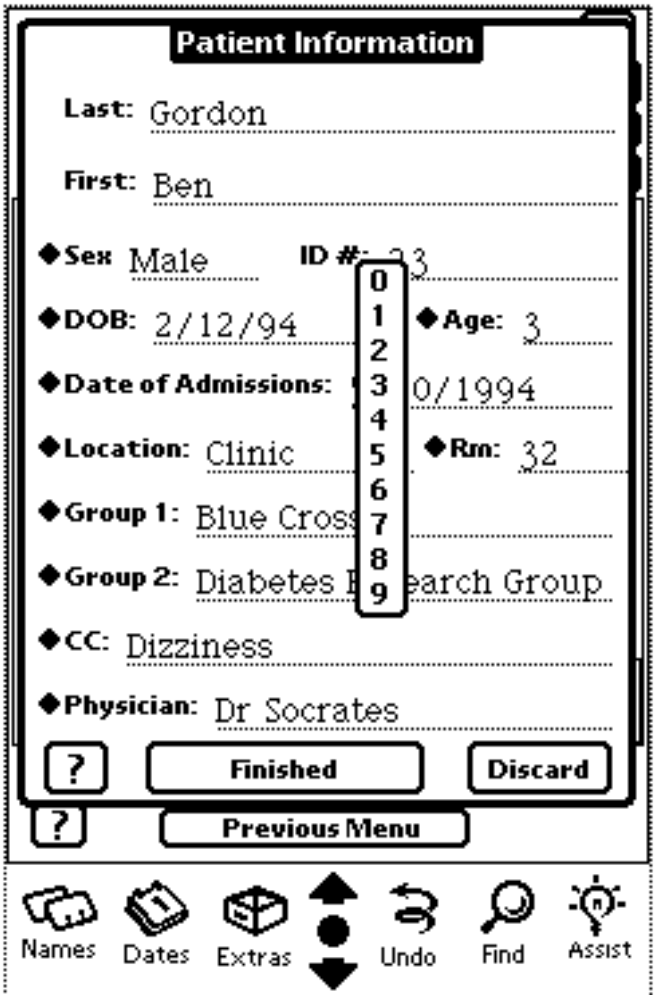
Double tap in the last name entry field to bring up the keyboard. You can tap the shift key to capitalize a letter. The backspace key will erase a mistake. A tap of the stylus can move the letter entry position to another location in the entry field or to another field entirely. After finishing the last name, tap on the field for first name and continue to type letters.

Most of these entry fields allow you to tap a pop-up list and pick an appropriate word or date. Tap on the black diamonds to see a list. Some fields will not respond to the stylus. You have to pick from the list.

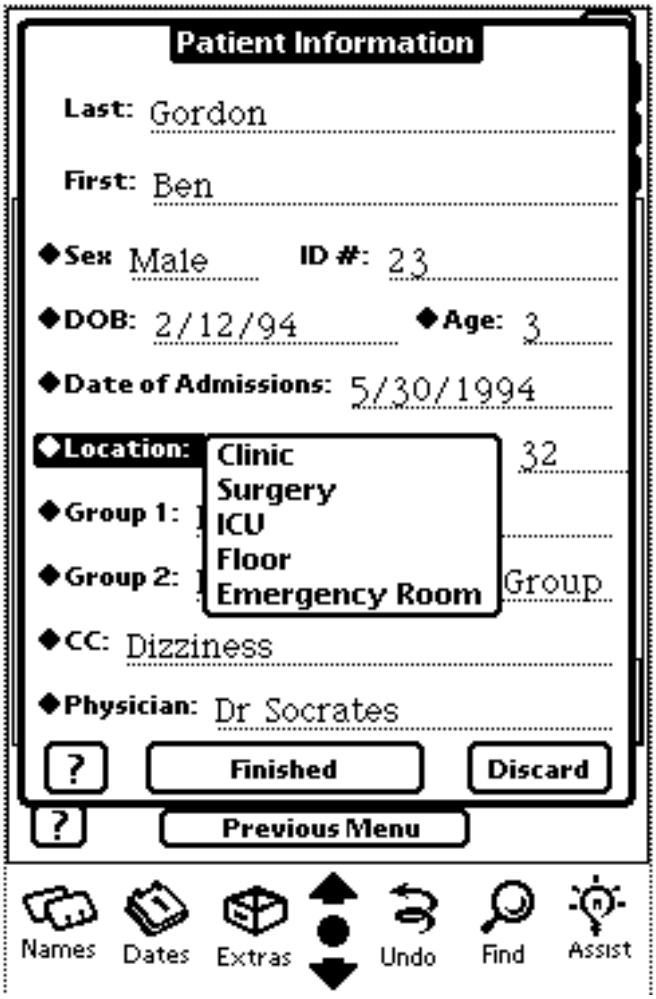
The two groups are totally for your convenience in classifying your patients. The contents of the two lists are entirely up to you - if you use them at all. The initial contents of the lists are just to give you ideas on how they could be used. Don’t worry about them now.

When the form is filled out to your satisfaction, tap the “finished” button and we will go on to the other parts of the Encounter form.

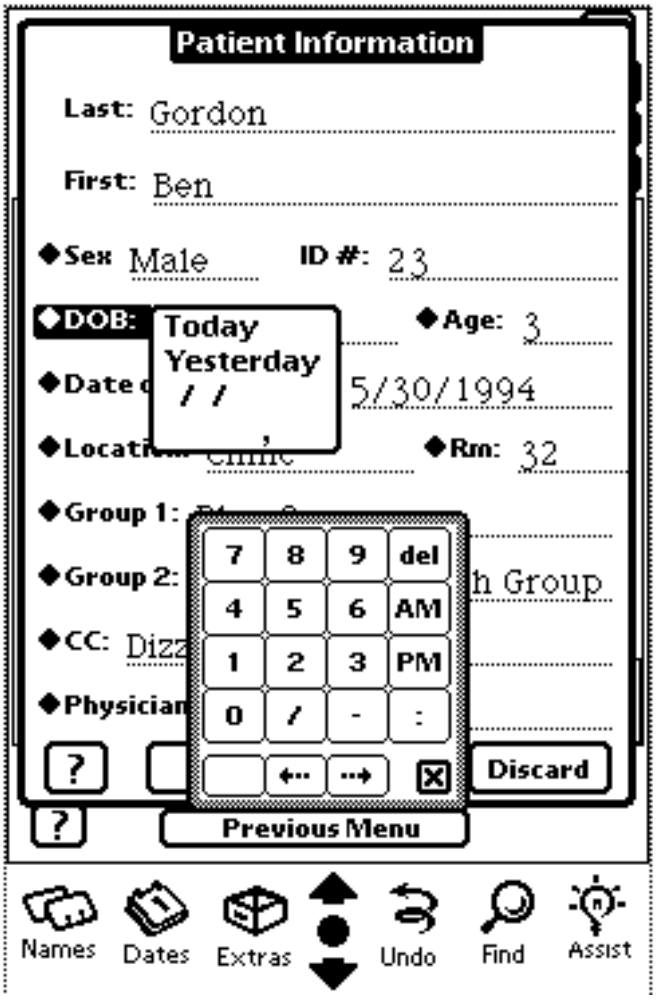
Go on to the next text page.



Popup pick list for numbers



Patient Location pick list



Date entry in "Who" fields

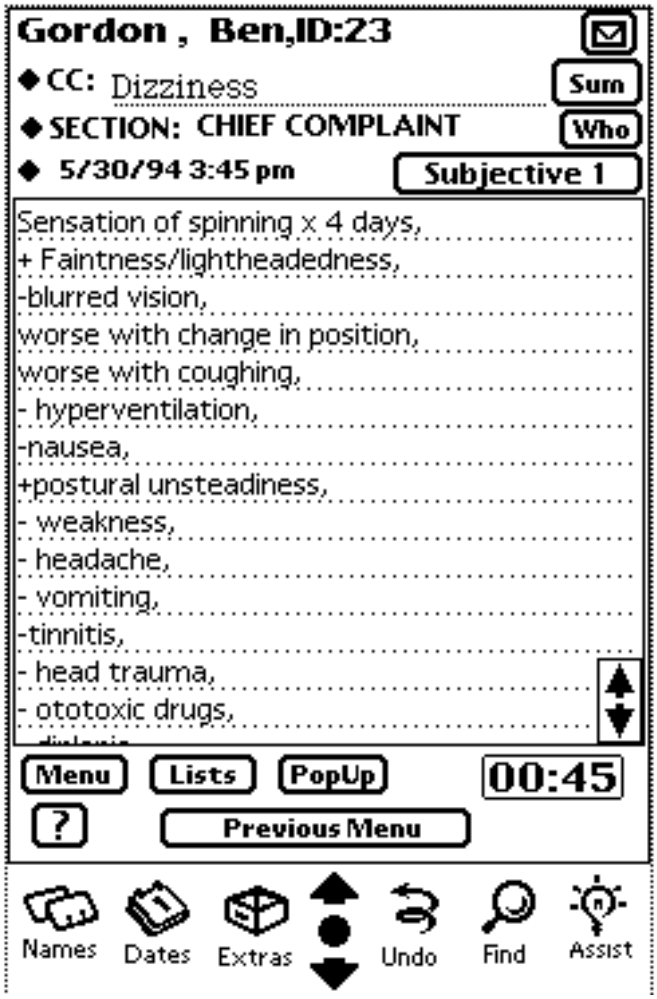
Patient Encounter Form - Subjective section

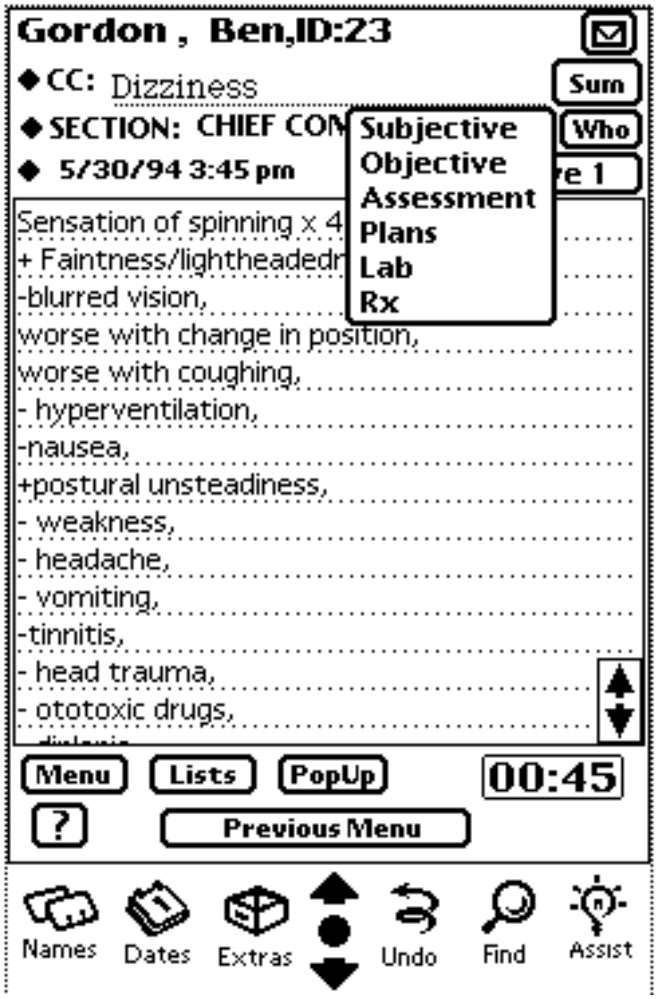
After the “Who” form closes, we are left with the next section of the encounter form - the Subjective section. The Encounter form contains seven sections: Who, Subjective , Objective, Assessment, Plans, Lab and Rx. They can all be accessed from this screen. The name of the section is displayed in the button at the top right of the data entry area.. When you change to another section, the name will change and the note pad area will change to show the data for that section.

Each section of the Encounter form is bigger than the area shown in the data window. The real length of the data is one normal page length. You can see the longer list by scrolling the data with the arrow scroll button in the lower right corner of the data window - not the scroll arrows at the bottom center of the screen - those are for scrolling through the encounters by date.

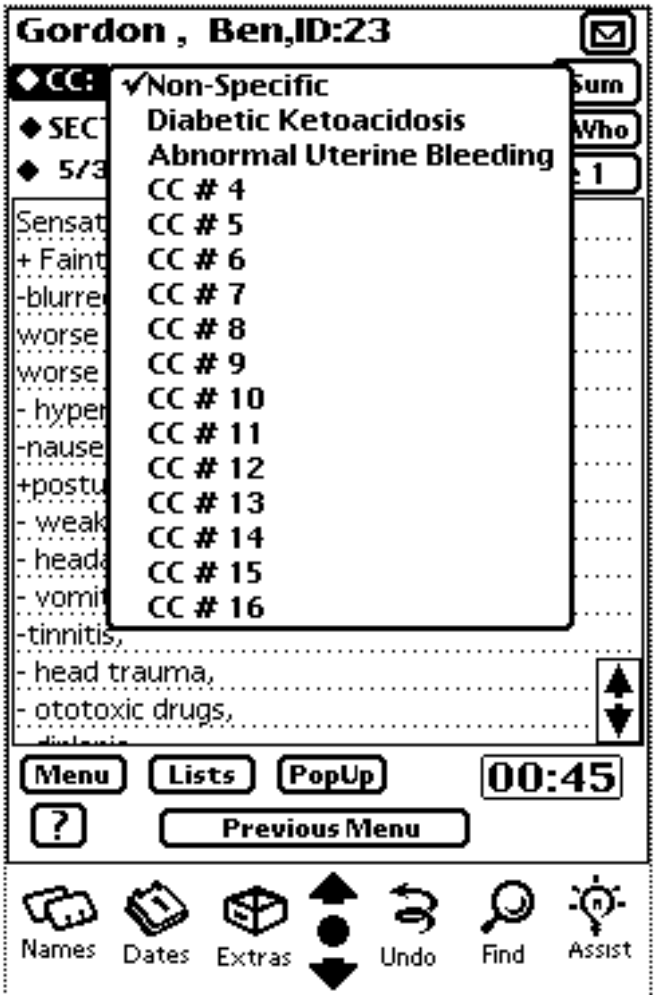
In this view of the Encounter form, many actions are possible.
You can open any one of the SOAP or Lab sections of the Encounter form.
You can open the Rx section for this encounter. Three drugs are possible on one Rx.
You can go back to the "Who" section for this patient. The "Who" button is in the top right corner.
You can edit/add data to the data window by writing or by keyboard.
You can change encounters by opening the data picker at the top left side of the data window.
You will see a list of dates/times for all the encounters for this patient. If there are more than 22 encounters, you will see them in blocks of 22 at a time.
You can also change encounters by tapping the permanent scroll arrows at the center bottom of the Newton window.
You can change the Chief Complaint (CC)assigned to this patient. This sets up a unique set of quick-pick word lists for the patient.

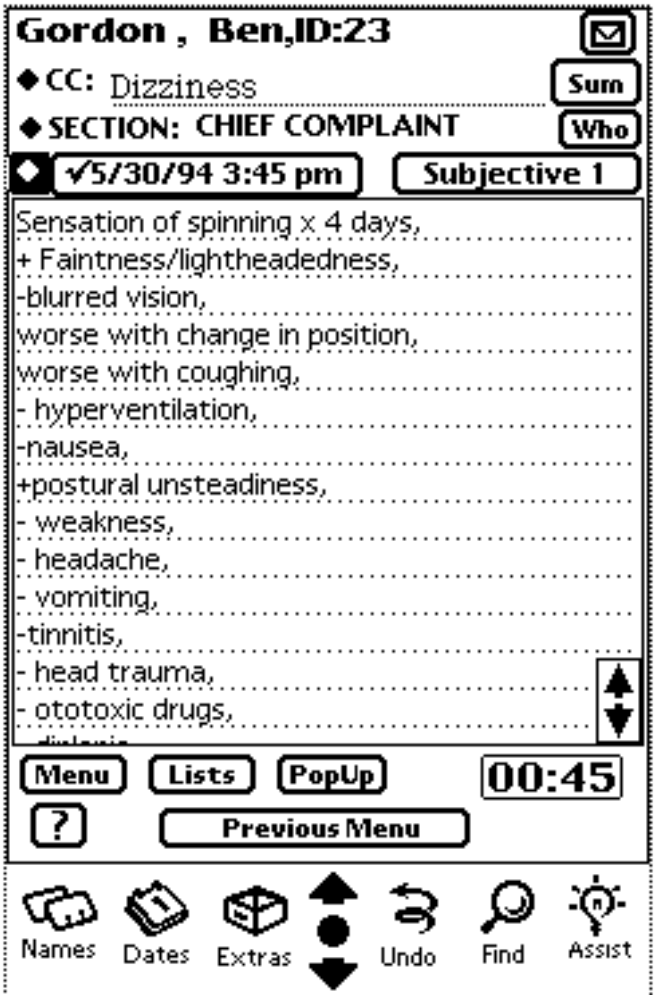
You can use the Help system by tapping on the “?” button and then tapping on some other object - like a button - to get a short text explanation. If the help message does not popup then the Help data was not installed during the installation process or the data has been removed. It can be reinstalled if needed. **Refer to the sample data for this exercise on page 10.**


Gordon , Ben,ID:23
CC: Dizziness
Sum
SECTION: CHIEF COMPLAINT
Who
5/30/94 3:45 pm
Subjective 1
Sensation of spinning x 4 days,
+ Faintness/lightheadedness,
-blurred vision,
worse with change in position,
worse with coughing,
- hyperventilation,
-nausea,
+postural unsteadiness,
- weakness,
- headache,
- vomiting,
-tinnitis,
- head trauma,
- ototoxic drugs,
Menu
Lists
PopUp
00:45
?
Previous Menu
Names
Dates
Extras
Undo
Find
Assist



The Encounter Form **Other parts of the Encounter form**





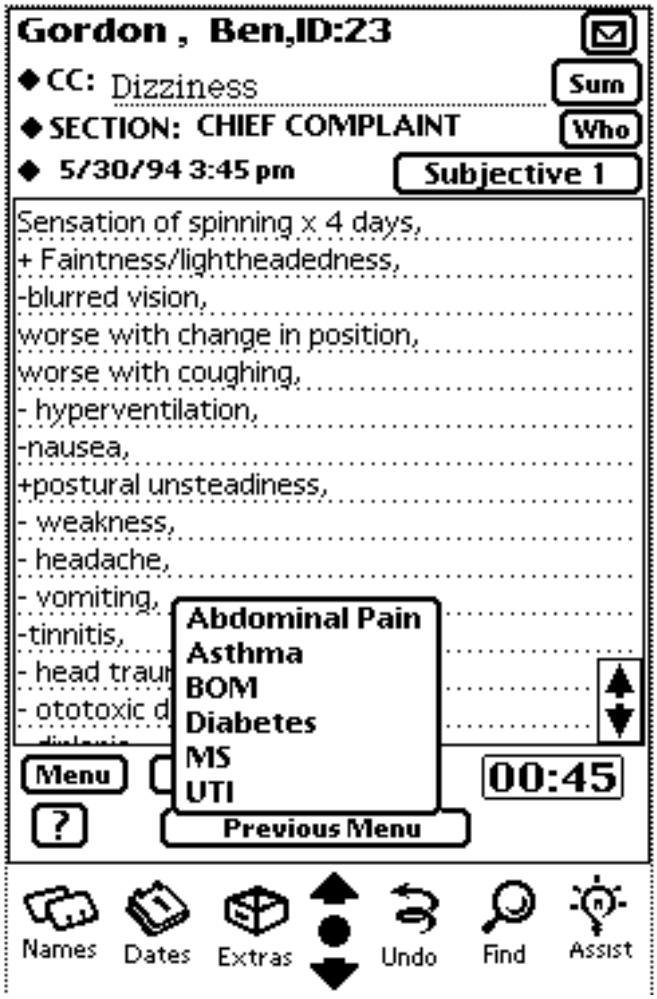
Open CC picker.

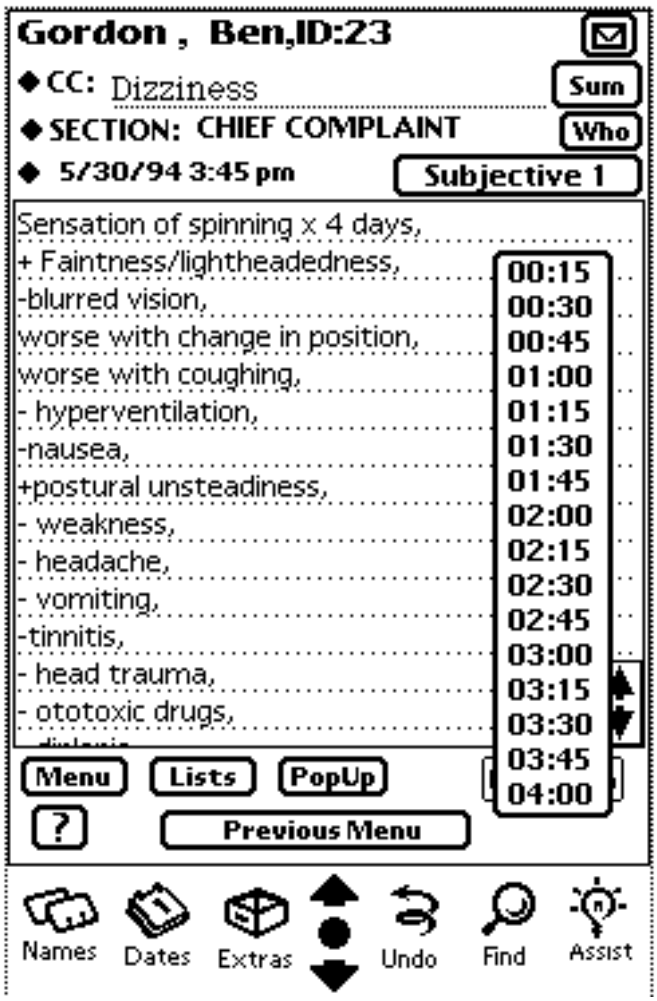
Open date/time picker - one encounter available.

Other things you can do in the Encounter view:

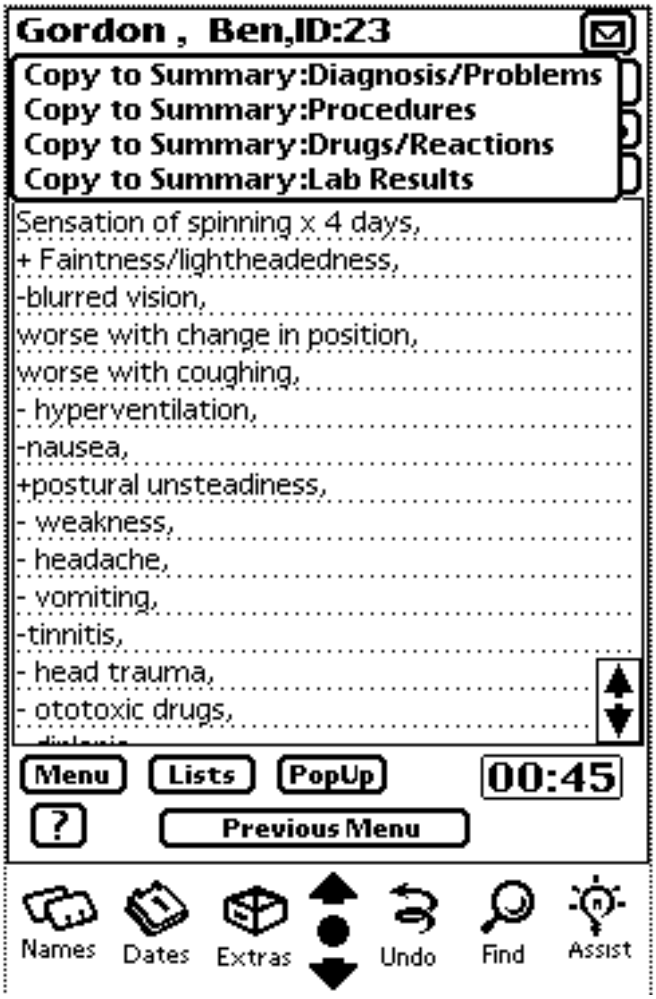
You can open a quick-pick word list to select words and phrases for inclusion in your data record. The "Lists" button near the bottom of the data window opens the lists.
You can popup a short list for immediate access to words you need often. The lists change depending on the section of the Encounter you are viewing.
You can copy information from the data window to the Summary sheet for this patient. That "Sum" button is near the top right corner of the screen.
You can add section headings to the data window to organize the data. The "Section" picker near the top of the screen inserts a title or subheading into the text data. There is no other effect. The headings change depending on which part of the encounter you are looking at.
You can specify a duration for the encounter by tapping on the clock time rectangle in the lower right corner. In a new encounter, a timer will count the minutes the encounter is open until you manually set the encounter duration, then the timer is turned off.
You can change the drawing mode of the data window in the "Menu" button. Normally, the window is in text mode. Anything you write will be translated into text. **You can draw pictures** by changing to Graph mode in the Menu button. Then every mark on the screen will be stored just as you wrote or drew it. It can be faxed or printed.

The "Lists" button takes you to a new screen. Try that now. We will go get a few words and phrases to add to the data window. Go to the next text page.

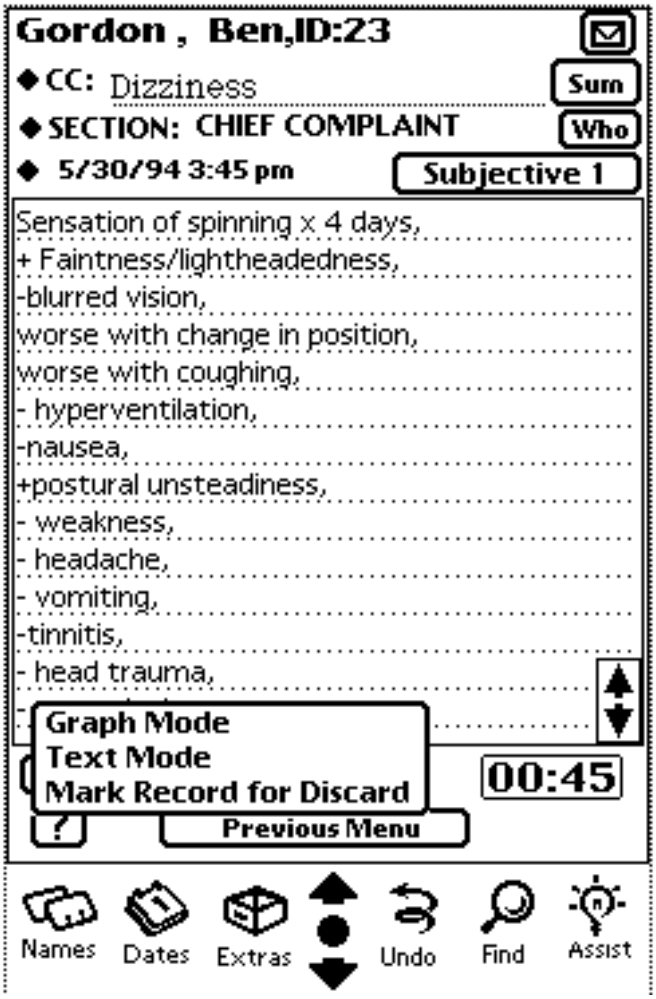

Gordon , Ben,ID:23
CC: Dizziness
Sum
SECTION: CHIEF COMPLAINT
Who
5/30/94 3:45 pm
Subjective 1
Sensation of spinning x 4 days,
+ Faintness/lightheadedness,
-blurred vision,
worse with change in position,
worse with coughing,
- hyperventilation,
-nausea,
+postural unsteadiness,
- weakness,
- headache,
- vomiting,
-tinnitis,
- head traur
- ototoxic d
Abdominal Pain
Asthma
BOM
Diabetes
MS
UTI
Menu
00:45
?
Previous Menu
Names
Dates
Extras
Undo
Find
Assist



Open Popup word list **Open time picker**



Open Copy to Summary



Open Menu Button

Word List Picker

In this screen we want to collect medical terms to import back into the “Subjective” note pad. This is quicker and less error prone than handwriting some of the technical terms.

This screen shows a list of items that are in the list named “HPI” or History of Present Illness.. There are ten different lists with other types of terms. The lists are chosen by the buttons at the top of the screen. The two lists on the far right (User 1 and User 2) are constant, the eight other lists change with CC.

To select a word or phrase, tap on it in the list. It will be added to a collection. Each tap will add a new line containing the word to the collection. You can’t see the collection until you return to the last screen and it has been inserted into the note pad area.

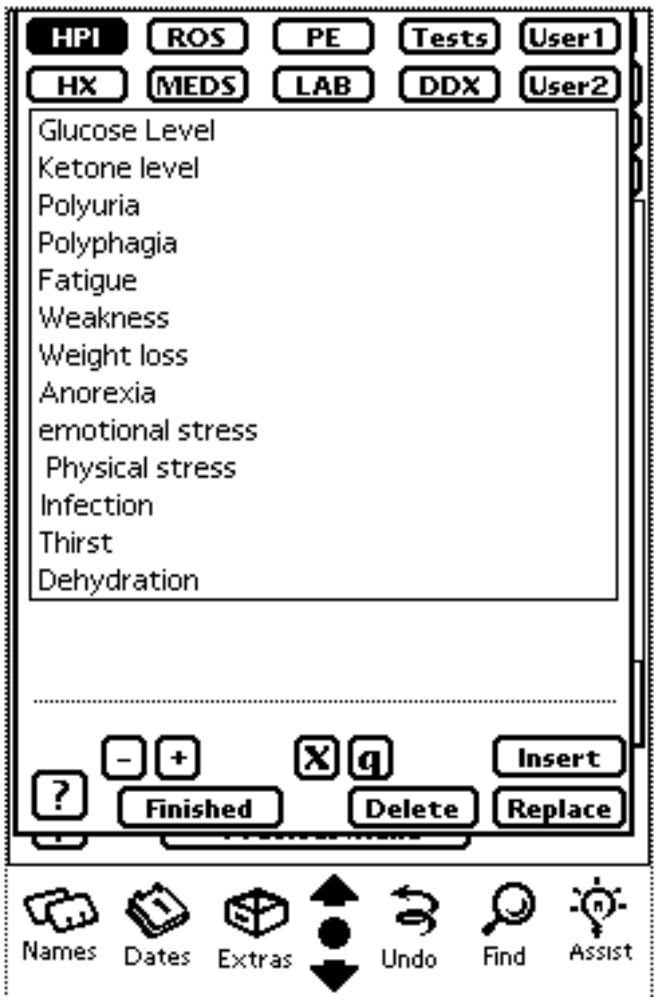
Normally, you would open this list screen, tap a few terms to collect them, then close the screen and go back to the “Subjective” screen. You can modify the item you have selected by tapping the + , - , X or q buttons before or after tapping a word in the list. This modifies the word to add detail to the item. The other buttons - Delete and Insert - on this screen are for adding items or removing items from the list itself. You don’t need to use them this time since the list already contains the words you need. You will be able to use an application on a desktop computer to edit or substitute word lists. That may be a more convenient place to make major changes or updates to these lists.

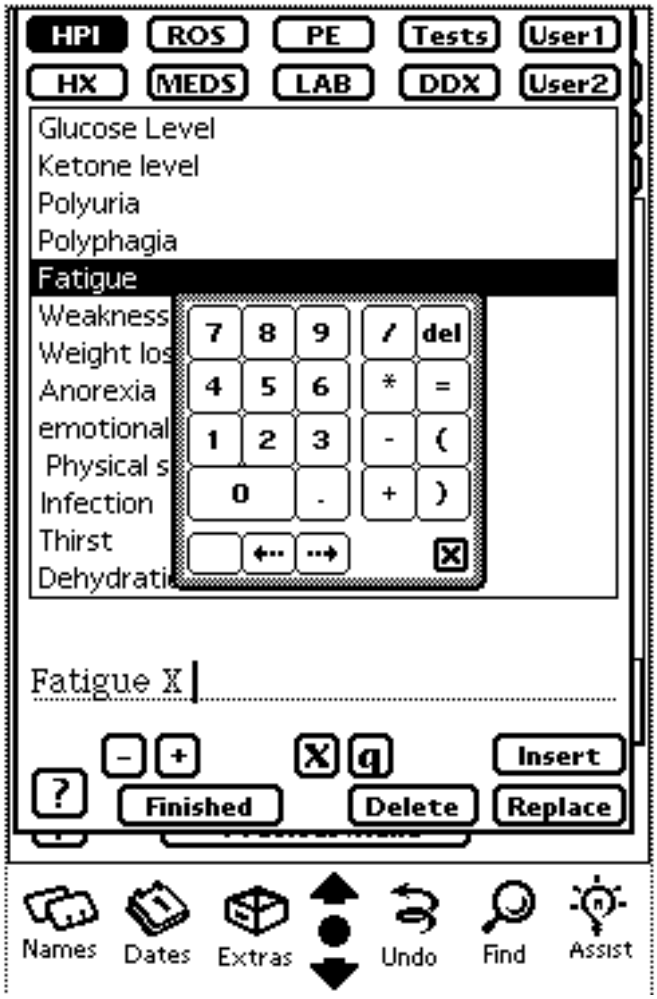
In case you want to add a word to the list now:

Adding or removing words from the Word Lists:
You can add new words and phrases to the lists themselves by writing the new word on the dotted line near the bottom of the list and then tapping “Insert”. To remove an item from the list, tap on the item in the list - it will appear on the dotted line - and then tap the “Delete” button. To modify an existing item in the list, tap on the item to get a copy onto the dotted line, then edit the dotted line with the pen or the keyboard. Tap the “Insert” button to put the modified word/phrase back into the list. Remove the original item from the list with the delete button.

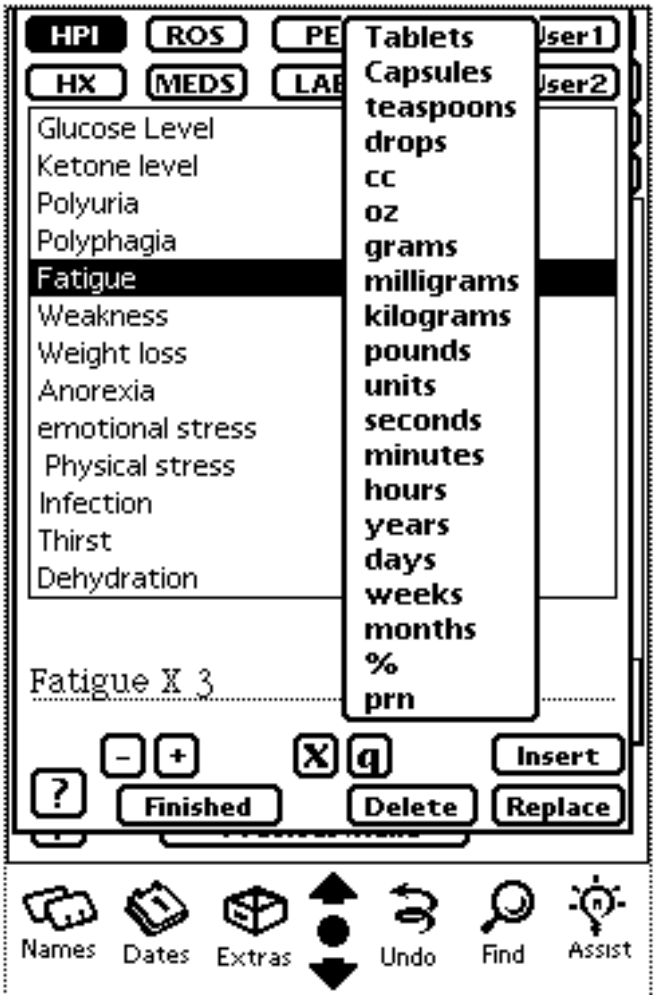
Continuing with our sample data...
You should see one of the medical conditions for the sample patient in the list. Tap it to start the collection of terms for importing into Subjective. Look up another term. If you don’t see it on the screen, you may need to scroll the list to the term by using the AtoZ strip just below the list area. Tap the letter of the first word you are looking for. The list should change to show terms that start with that letter.

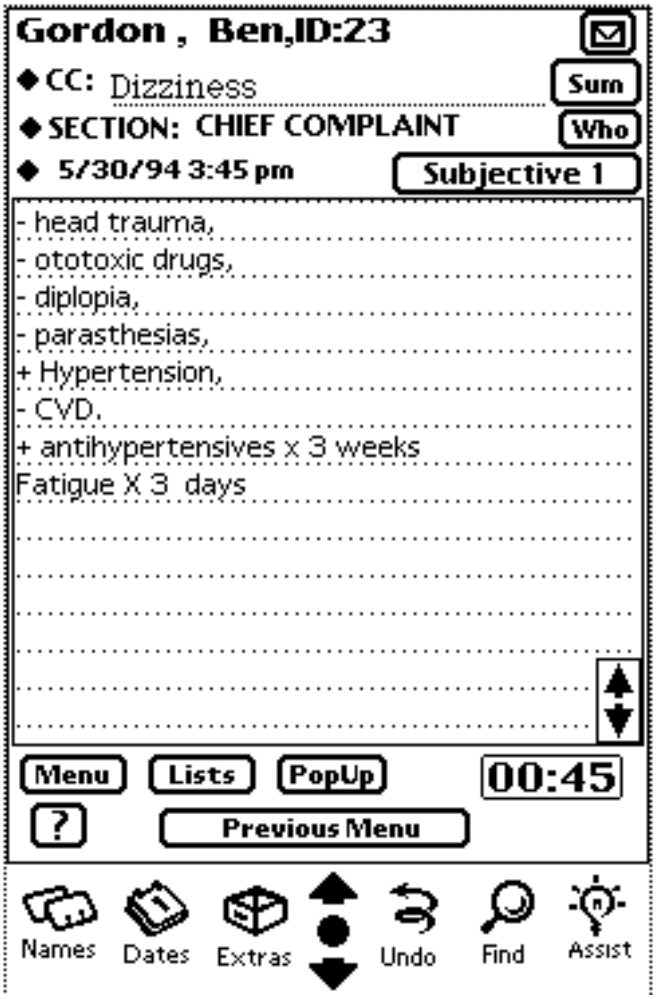
When you are finished, close the screen with the “Finished” button. You will see the words inserted into the note pad area of the “Subjective” section.


HPI
ROS
PE
Tests
User1
HX
MEDS
LAB
DDX
User2
Glucose Level
Ketone level
Polyuria
Polyphagia
Fatigue
Weakness
Weight loss
Anorexia
emotional stress
Physical stress
Infection
Thirst
Dehydration
Insert
Finished
Delete
Replace
Names
Dates
Extras
Undo
Find
Assist



Word List Screen **Using X key after a word**





Adding units to the selection **The modified word added to end of data**

Rx Screen - Prescriptions
From the Encounter screen, open the Rx screen by choosing Rx from the SOAP Button pick list.

Fill out the prescription form using the data in the sample patient.

This section of the Encounter Form is a prescription form associated with this particular patient encounter. Each encounter has its own prescription. Each prescription can have three drugs. The data below the drugs is only for the selected drug. Tap the marker button to the left of the drug to select it.

At the top of the screen, just below the patient's name, you can see the list of available drugs. Scroll to the name of a particular drug by tapping on the alphabet strip just below the list. If the name is still not showing because you have more entry's under one letter than will fit inside the window, scroll up or down by dragging the pen off the edge of the list at the top or bottom of the list. Pick the desired item by tapping on the name in the list. It will appear in the Rx line below. We will supply lists that are editable on a desktop computer.

Set the details of the prescription by picking from the lists. The phrases and words will be strung together into a connected sentence. You can also type or write in the blanks with the pen or keyboard. Due to the small space, the keyboard will work better. Just tap twice on the spot where you want to add letters.

The Note area at the bottom can be used for additional instructions and a signature. Normally, everything entered here will be recorded as it is written and not translated into text. If you want text, you can use the keyboard.

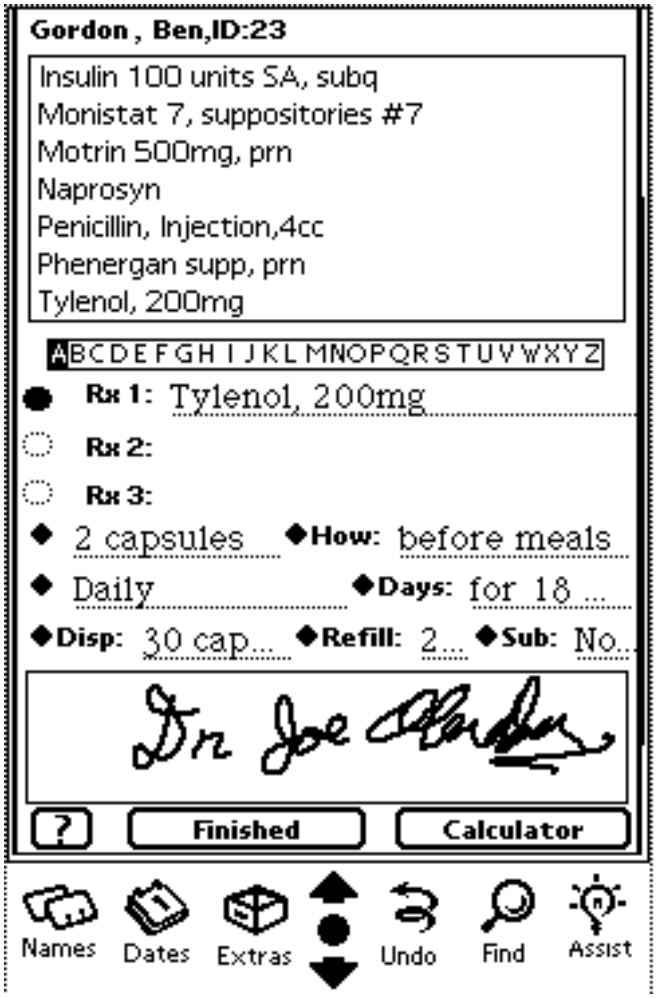
The Calculator is a simple dose calculator. The result is not saved when the calculator is closed. The arithmetic is as follows:

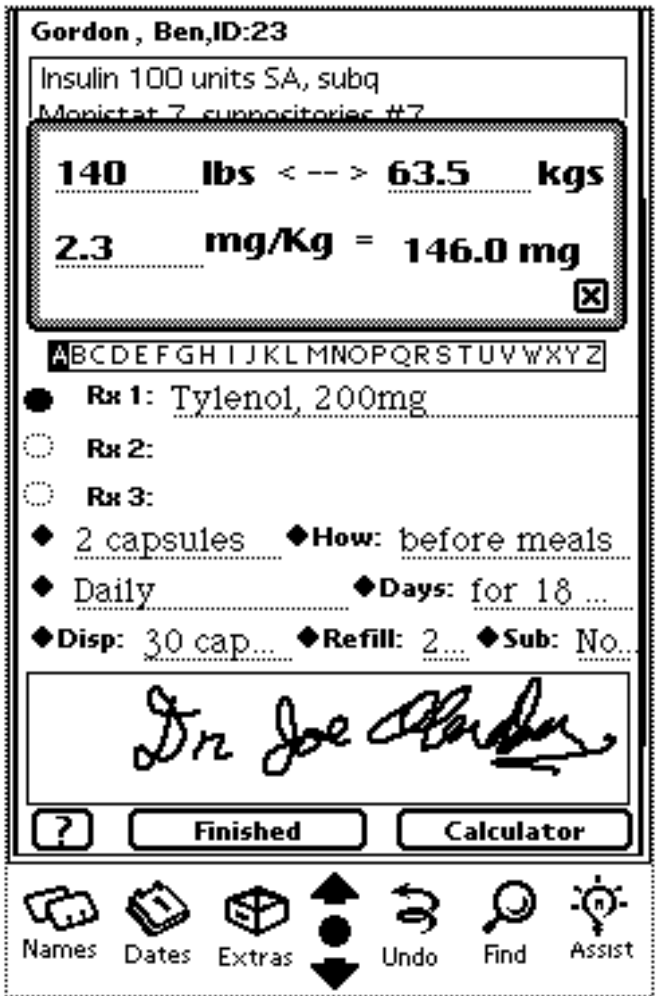
dose required =(body weight in kilograms)*(dose in mg of drug per kg of body weight)

We are finished with the five sections of the encounter form for a new patient.

Tap the "Previous Menu" button to close the encounter form.

Congratulations! you have finished the first encounter with a new patient.
Now, we need to enter the data from the second encounter with the same patient.
You should be looking at the Main Menu screen. Tap on "Existing Patient" to go to the next screen.
Go to the next text page.





Prescription form **Open dose calculator**

Choose a Patient Form
Arrive here after choosing "Existing Patient" in the Main screen.

You should see a screen that looks like the facing page. If not close windows until you see the Main Menu screen and open “Existing Patient” again.

The three black diamonds at the top give you choices of which patients to see in the patient list window.

“Located At” lets you see patients by medical location. “All Locations” will show all patients at all locations.

"Prin Physician" lets you see the patients by their principle physician or all physicians.

“Records on:” lets you see where the actual record is stored on the Newton PDA. Normally you will leave this set to “Newton and Card” in order to see records located both in internal memory and on the RAM card. The other choices may be are important if you need to remove the card temporarily.

The records shown in the window meet the criteria you have chosen. If the window is empty, there are no records that meet the those criteria.

To open a new encounter for an exiting patient, you need to select a patient by tapping on the name in the window, and then tapping the button “New Visit”. This will create a new encounter record and append it to the existing records for the patient.

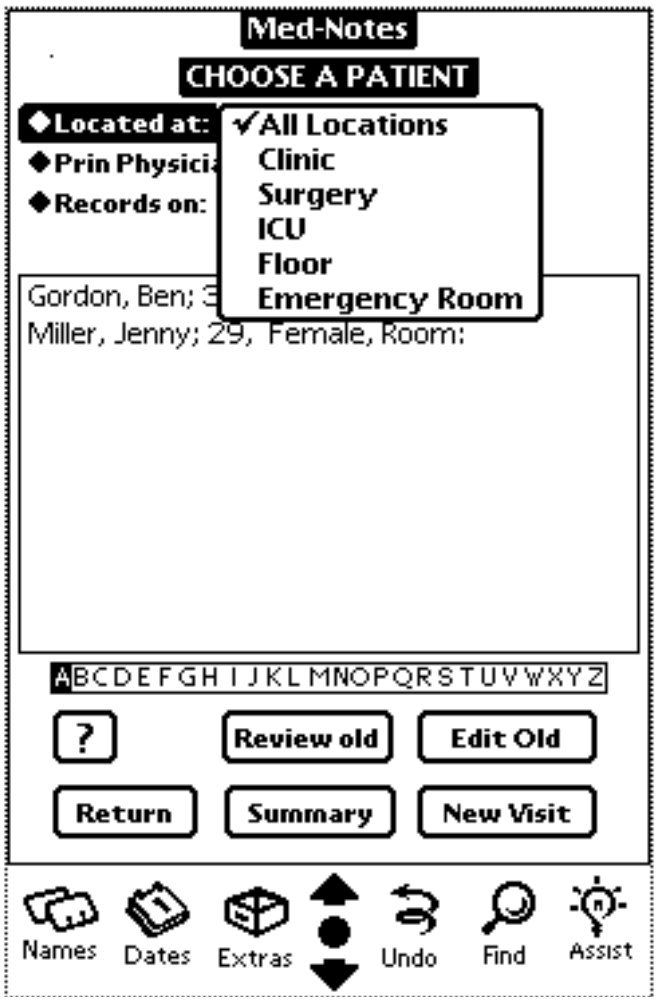
To edit an old record, you need to select a patient by tapping on the name in the window, and then tapping the button “Edit Old”. This will open the old records and will allow editing, but will not create a new encounter.

To look at, but not edit, an old record, you need to select a patient by tapping on the name in the window, and then tapping the button “Review Old”. This will open the old records, but any changes you make will not be saved. This prevents accidental changes when you just want to review the records.

The "Summary" button will take you to the summary created for the selected patient. A summary will be created when you copy information from the encounter screen to the summary.
See the encounter section to see how to copy information from encounter to summary.

We want to add a new encounter to our sample patient, so select the name in the window and tap “New Visit”. The records will be opened and in a few seconds the next screen will pop up.

Go on to the next text page.



Choose A Patient Screen. Select patients to see in the list with the black diamonds at the top of the screen. Tap on a particular patient and then choose a button from the bottom of the screen. Remember the Help system is available.

The Summary button will take you to a screen of information copied from the encounters. The screen is for condensing the most important or timely information on a patient into a concise and convenient form. You might want to have such a thing handy for the 2:00 AM phone call or to fax to an emergency room.

Encounter Screen for Existing patients.

You arrive here from "Choose A Patient" after picking an old patient and then picking "Review Only" or "Edit Old" or "New Visit". A new visit will have added a new encounter form to the old records.

We do not see the “Who” section as we did with a new patient since that section is already filled in. You can go look at the “Who” information by tapping on the “Who”
button.

The only thing new about this screen, since we added the patient the first time, is that now we have an old encounter in addition to the new empty encounter. We can look at old encounters by picking the date from the pop-up encounter list at the black diamond near the top of the screen. We can also scroll back through the old encounters by using the scroll arrows at the bottom of the screen.

Add the new information for the second encounter for this patient to the Subjective, Objective, Assessment, Plans, Lab and Prescription sections.

This completes the entry of sample data. Tap the “Previous Menu” button to leave this screen.

You now have two encounters saved for the sample patient.

Any time you create or save changed data, the data records are marked for faxing and printing. New prescriptions are marked as new.

We want to fax this data to a fax machine, so close all screens by tapping on the close buttons until you get back to the Main Menu screen - the first screen of the program. We will now go to the Communication screen to complete the fax operation.

Turn ahead to the next text page.

Communication Form

We arrive here by picking the Communications button in the main menu screen.
Only marked records and prescriptions can be faxed or printed. Records are marked by being created or modified.

To fax our records to a fax machine or print them to a local printer, we must first
1) pick out the record(s) or prescription(s) we want to process,
2) specify where to send them (if faxing), and then
3) specify which process to actually perform - such as fax or printing.

The prescriptions are handled separately from the other records because they are often sent to a different location than the medical records. You can also print out a
prescription for a patient to hand carry without dealing with the medical records.

First, pick out the records to process. Pick “All unfaxed records” from the first pick list at the black diamond. The window will now show only those records that have encounters marked for faxing. Decide if you want to print just one patient or all the patients that show up in the window. If you only want to print the sample patient, open the second black diamond list and choose “One Selected”. Tap on the name of the patient in the list to select it.

You could select a fax destination if the Newton “Names” application has already been loaded with the name and phone numbers of your office. Any name in the fax destinations list that has a corresponding name and fax number in the “Names” rolodex file can be chosen as a fax destination. The Newton will take the name you pick and go look up the proper fax number for that name and enter both in the next fax screen.

The “Inhibit status changes” button is a mouthful but it gives you an important ability to refax or reprint or print and fax the same records many times. Only marked records can be faxed or printed. Normally they are unmarked as soon as the fax is successfully transmitted. This button stops the process that unmarks the records so that they can be faxed or printed again. As long as the button is black, then the marks will be retained.

If you chose “Fax” then you have to have the modem plugged in here or the Newton will reject you fax job. Take the Apple Fax machine and plug the short cable into the right side of the Newton. Be gentle and don’t apply a lot of pressure. The cable goes into the socket with the flat side of the cable connector turned to the screen side of the Newton. It will slide in when the cable is correctly aligned with the socket. The phone wire from the wall socket is plugged into the modem.

To fax your patient, tap on the small envelope button in the top right corner. Pick fax.
The fax slip will open.

For more communications information, go on to the next text page.

Communication Screen continued

A fax slip will pop up that lets you type in the name of the fax destination and the fax phone number. If the Newton could not find any names in it's Name card files that matched the name you picked from the Fax Destinations list then the name and number will be blank or incorrect and you will need to type them in by hand or just write them. If the Newton did find a match then you will have one or more choices of names and numbers. Tap on the black diamond to see the list.

You can see a preview of the fax or you can just go ahead and fax the item.

Next the "Outbox" pops up. This is where the Newton stores the things you have told it to fax or print. The record you are faxing is now in the outbox under the heading "Fax". Tap on the item that has "Med-Notes" in its name to select it. Tap "Fax" when it asks you to fax or delete. The fax should then be sent.

The status of the fax job can be monitored on the screen in the Outbox item. Failure to send the fax can be investigated by reading the problem description as seen by the Newton. If the modem is unconnected, check your cables.

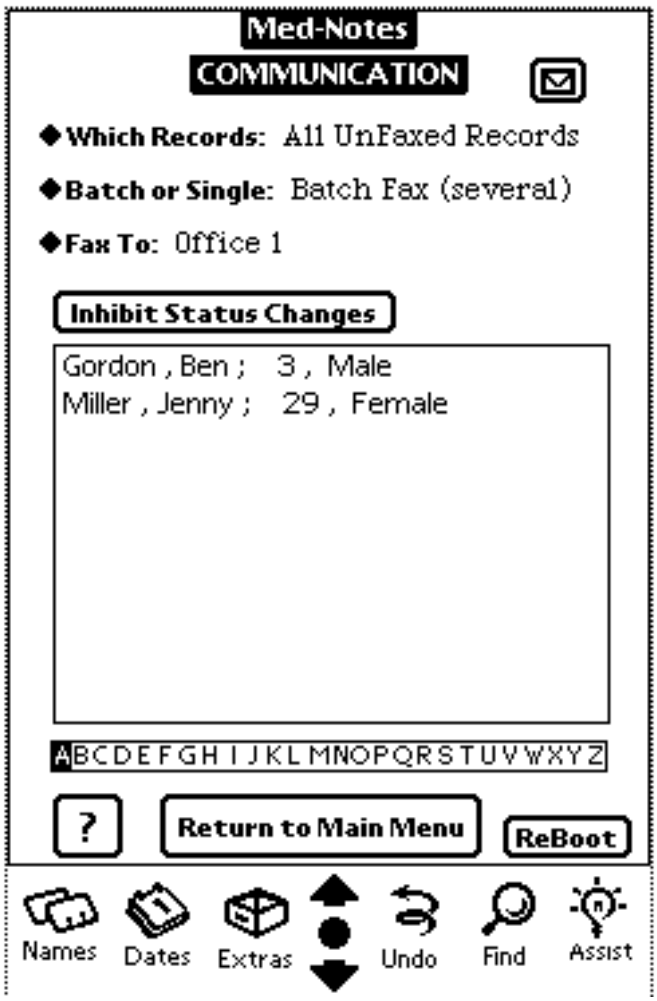
This procedure is similar for printing.

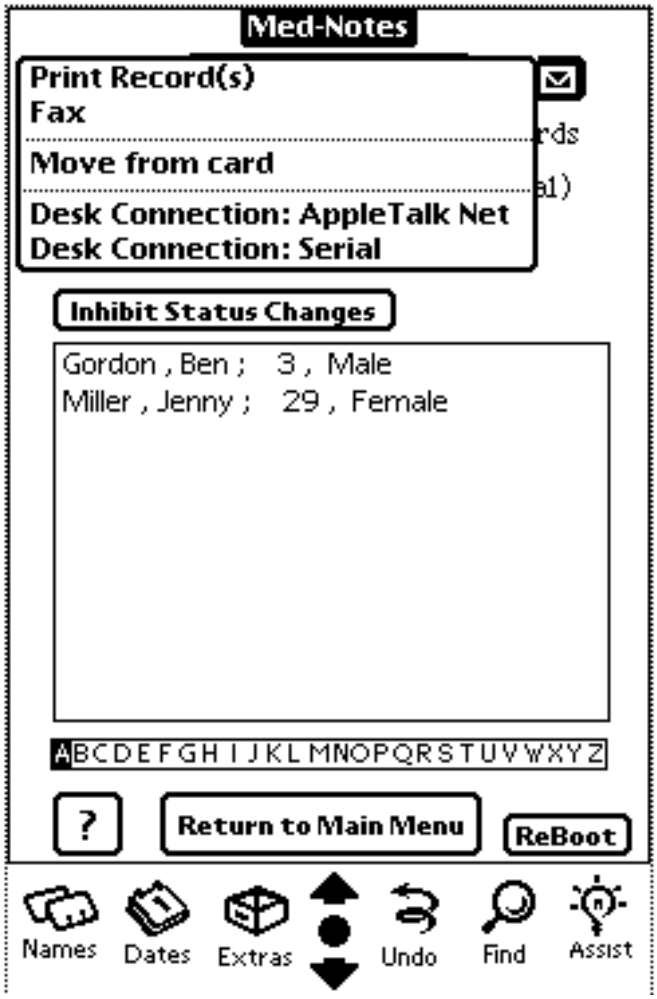
If you chose "Print" then you must have a local printer attached to the Newton. Apple sells a Print Pack which is a cable with built-in printer drivers for almost any printer. The Newton can print to three Apple printers without needing the Print Pack. See your Newton documentation.

Prescriptions are handled in a similar manner. The only difference is that they are not marked for printing or faxing, but just as either new or not new. You can decide to print or fax as needed. In the future, the same behavior may be used for the printing and faxing of records. User feedback will be important in this proposed change.

This concludes the training process of entering data and faxing it to another location.

One other function remains. The Housekeeping function is concerned with deleting old records. **To learn to use this feature go on to the next text page.**


Med-Notes
COMMUNICATION
◆Which Records: All UnFaxed Records
◆Batch or Single: Batch Fax (several)
◆Fax To: Office 1
Inhibit Status Changes
Gordon , Ben ; 3 , Male
Miller , Jenny ; 29 , Female
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
?
Return to Main Menu
ReBoot
Names
Dates
Extras
Undo
Find
Assist



Communication Screen **Open "Routing" button**

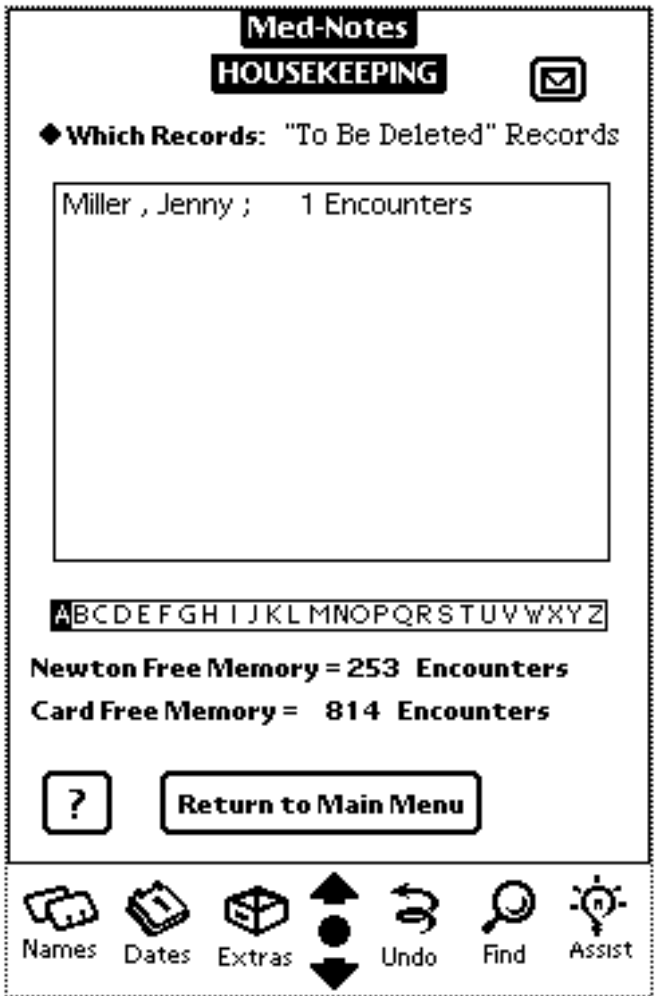
Housekeeping Form

This screen is used to delete patient records from the PDA and to move records to and from the internal memory and the RAM card.

Looking at the facing page, you can see that the records that first appear in the window are those marked for deletion. This assumes you have manually marked the record using the button in the Encounter form when you had the record open.

You can see all records and delete any record if you so desire. There is no warning or second chance with the delete command in the envelope button.

Once you delete a record, it is gone where no one can retrieve it. “Undo” does not apply here. Only if you have a backup copy on another computer can you get a copy of the information back.



Housekeeping Screen.
The black diamond near the top of the name list lets you either choose to see all available records or to see only those records that have been previously marked for deletion. You mark a patient's records for deletion when you have them open in the Encounter form and use the "Menu" button. One of the choices on the menu is to mark the current record for deletion.

Near the bottom of this screen two lines give an indication of how much memory is available on the machine for patient data. The reading is gross since we assume every encounter record is 1.5kbytes in size, whereas, real encounters vary from a few hundred bytes to 4kbytes. So, take the estimate with a grain of salt. You may need to get a bigger RAM card or delete some unused patients to free up space. You will also be able to use your desktop computer for backup and permanent storage of your patients. Then you can carry the most active ones with you and leave the majority at the office.

Thoughts on Backup:
A cheap backup system for offices that don't want to invest in a full size desktop computer is to buy a second RAM card and store a backup on the second card.

Summary Screen
In the "Choose A Patient" screen, one of the choices is to go to the "Summary" screen. This is an overview of the patient. The details that are most important can be copied from the encounter form into the summary form. This form was added to the program to let users keep a concise overview of a patient in a form that could be quickly printed or faxed.

The only way to create a summary sheet for a patient is to copy a block of text data from an encounter into the summary using the "Sum" button in the encounter.

Each copied block of data is dated and added to one of four sections in the summary form. Those sections are named:

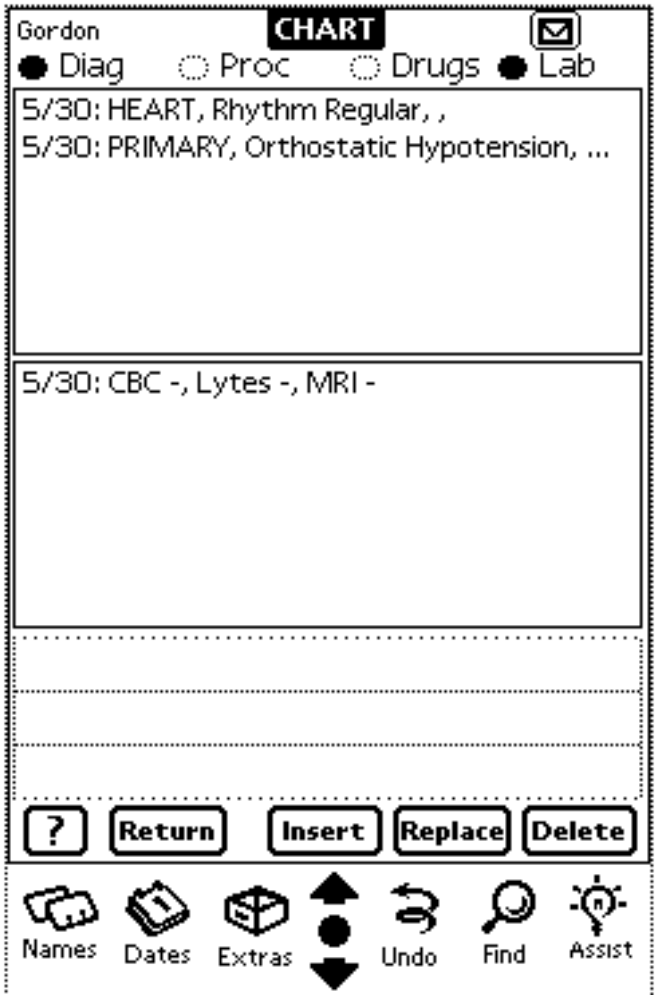
Diagnosis/Problems
Procedures
Drugs/Reactions
Lab Results

Each data block will be printed out on one line of the printed or faxed document. Therefore, there is a limit on the amount of data in any one block. If you select too much data to fit on one line, the program will tell you and ask that you select a smaller block of text. The date of the source encounter is added to the front of the block.

Only two of the four sections can be seen at once on the Newton due to the small screen. You can switch between the four sections with the buttons at the top of the screen.

Faxing the summary. We have broken our rule of putting all communication functions in one place by including a routing button at the top of this screen. It is believed that the chart is so much a one-at-a-time thing or is not likely to be batch faxed, so that it would be OK to provide printing and faxing at the chart itself.

To fax or print the summary, open the button (small envelope) at the top right of the screen and choose the action you want. The operation is immediate.



Summary Chart. The chart shows two of the four sections. Tap on a single line and it will appear on the dotted lines below. Then you can read or edit the entire statement.

Trouble and Tips.

Resetting the unit.
If you have any sort of strange behavior such as a program failing to function as usual, the first thing you need to do is reset the PDA. For various reasons, the system software can get confused and the result is often errors that show up while doing things you know have worked OK before. This is especially true just after downloading a new program from a desktop computer. Resetting the Newton is simple. Turn the unit over and remove the battery door. That's the large pop off door at the bottom of the back side. Small software applications are available that will reboot the computer without opening the case of the unit. There are several utilities that allow the user to reset the Newton without using the mechanical button in the case. Med-Notes can reset the computer from the Communications screen. Use the small "Reboot" button in the lower right corner.

If you have the Message Pad 110 or 120 then close the screen cover to get it out of the way. Then apply pressure on the thumb catch to push the door off the end of the unit. Use the stylus to press into the small hole labeled "Reset" inside the unit.

Retry the operation that was failing before.

Printing:
The print pack from Apple allows you to use many common printers. We have tested the software using a Hewlett Packard DestJet 500C. The print pack has to be connected and used in a certain sequence to work properly. Start with both the Newton and the printer turned off. Plug the print pack cable into the Newton and the printer. Turn the Newton on and wait till it finishes the startup. Then turn on the printer. This sequence seems to be required to get the printer driver software to load into the Newton. If the printer is on when the Newton boots, it seems to prevent the load step so that the Newton only knows about the two built-in printer drivers.