



Stored Documents and the FileCabinet

Introduction

The stored document features have been greatly enhanced to allow easier storage and retrieval of a clinic's electronic documents. Individual or multiple files and folders can be stored on the server (within the 'FileCabinet' folder) and managed by the Med-Center application. Stored documents (as they previously existed in earlier versions of Med-Center) are no longer saved within the patient record but are more efficiently stored using the operating system's native file structure. The file cabinet features provide controlled access to patient documents for clients connected to the Med-Center Server. The single user version of Med-Center, functions identically to the server but with the documents stored on the local computer.

The FileCabinet folder

The FileCabinet folder acts as the central repository for the electronic documents defined for the patients. The folder itself resides on the server and is strictly controlled by the Med-Center application. The typical file structure as shown in Figure 1 illustrates storage of patient documents within the three main folder categories: "Chart Notes", "Contacts", and "EMR". As each patient receives documents to be stored, the FileCabinet folder is expanded using the patient Account ID as the folder name.

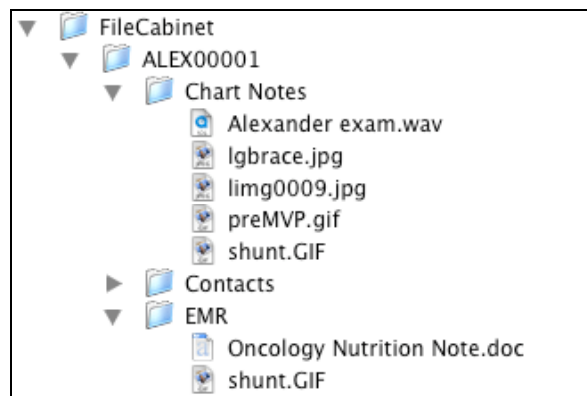


Figure 1 "FileCabinet Central Repository"

FileCabinet Lists within Med-Center

The list that displays the contents of the FileCabinet is used in the patient record screens and the case screens. See Figure 2 for an example of the EMR documents listing. The FileCabinet features apply to Contact management and EMR Document storage. The feature set includes: adding files and folders, adding files from pre-defined templates, searching (using a single search field), extracting files, deleting files, and creating an XML summary of the FileCabinet contents. Contact and EMR Document notes may still be created without attaching a stored document.

Technical Note – Stored Documents and the FileCabinet

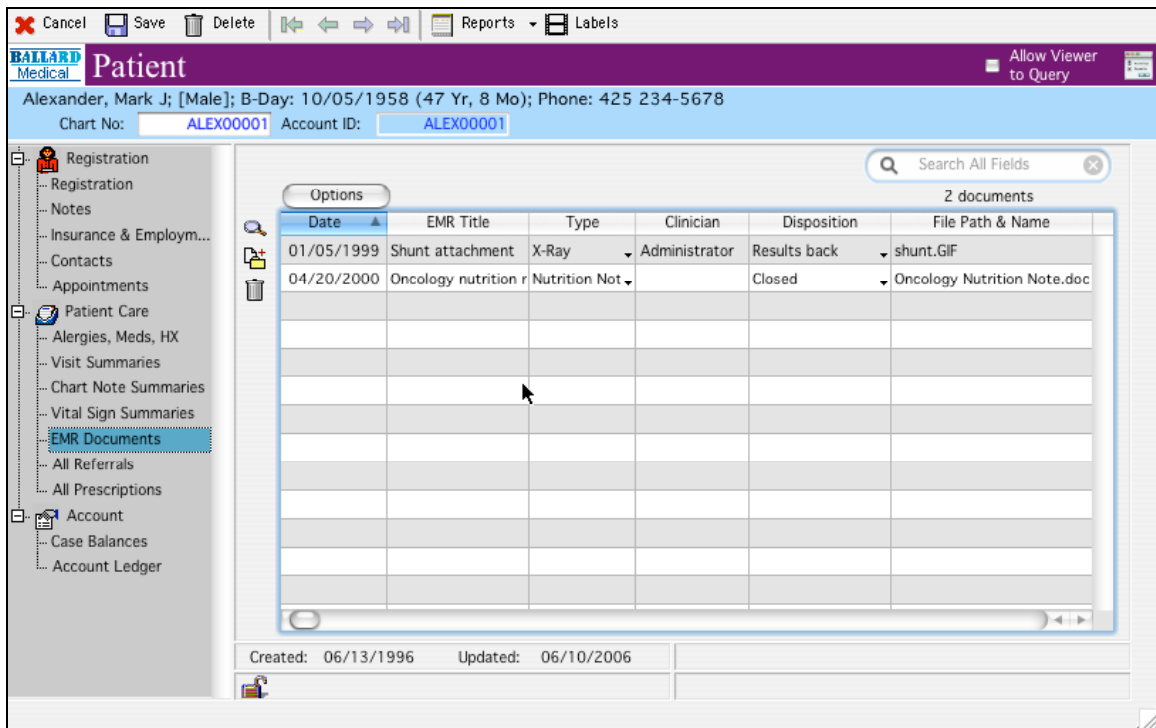


Figure 2 “EMR Document Listing within Patient Screen”

Adding files and folders

The method of adding documents allows Med-Center to manage and authorize access of these files between Client workstations and the Server. Once a file or set of files is added to the FileCabinet, the documents are available to all users on the network. For an office that already has numerous files on different networked computers, consolidation of the files on the Med-Center Server is simply a matter of importing these files and/or folders from each of the client computers. Just press the “Options” button to select the function desired, (figure 3 shows “Add document...”) and a dialog to select the file or folder will be presented.

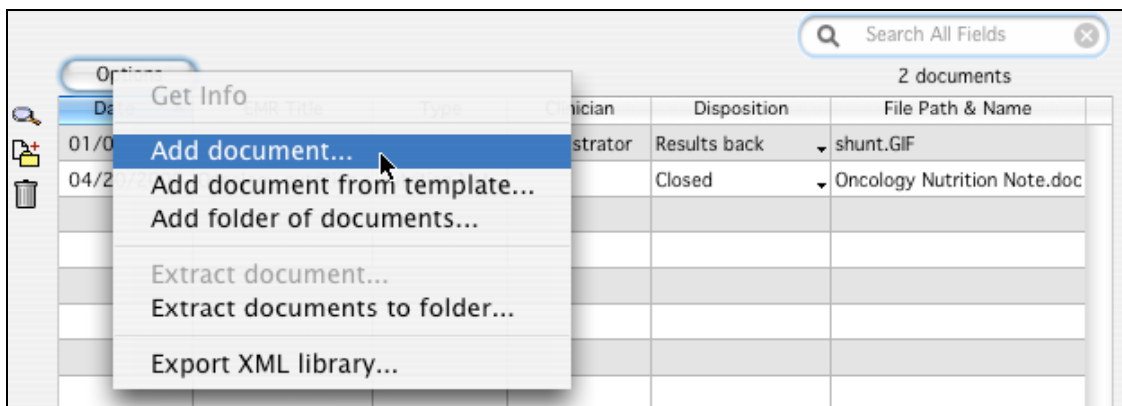


Figure 3 “Adding Files to the FileCabinet”

Technical Note – Stored Documents and the FileCabinet

TIP: For best results in a mixed environment using Windows and Macintosh computers, use the PC style extensions (e.g., “.doc” for MS Word documents) to designate file types. That way, both Windows and Macs can open the files using the default application.

Adding document from Template

When creating new documents (i.e., a Contact letter or EMR document) from a master template, Med-Center presents a list of templates that have been pre-defined and stored in the clinic templates folder. The template folder is named “Clinic_Templates” and is located with the database files (i.e., in the same folder) on the server machine. Subfolders for “Contacts”, “EMR” documents, and “Chart Notes” are used for the template groups. Subfolders within these major groups may be defined as needed to group specific template sets (i.e., for departments, specialties, types of contact, etc.). Thus the clinic has unlimited flexibility to define template sets and encourage their use for standardization among the office teams. Figure 4 shows a typical template folder file structure. Document templates (once defined and approved by the specialty or department group) should be placed into the corresponding folder or subfolder to make it available clinic wide.

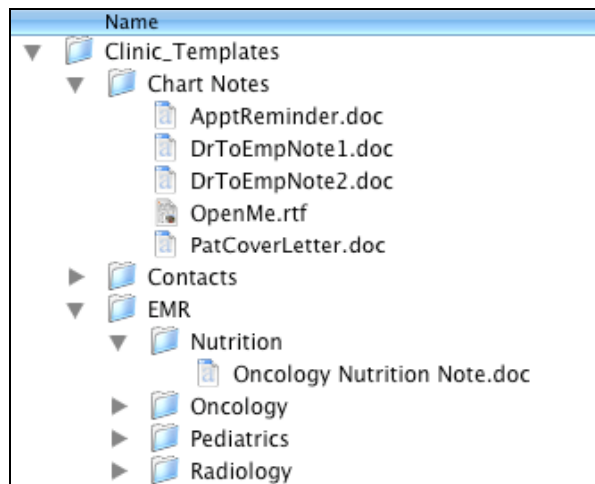


Figure 4 “Typical Structure for the ‘Clinic_Templates’ Folder”

Pressing the “Options” button and selecting “Add document from Template” will add a document to the FileCabinet (See Figure 5). Note the ‘EMR’ list of templates is presented for the user to select from (Figure 6) because the example listing is for the EMR documents. This is a subset of the entire clinic templates presented in figure 4.

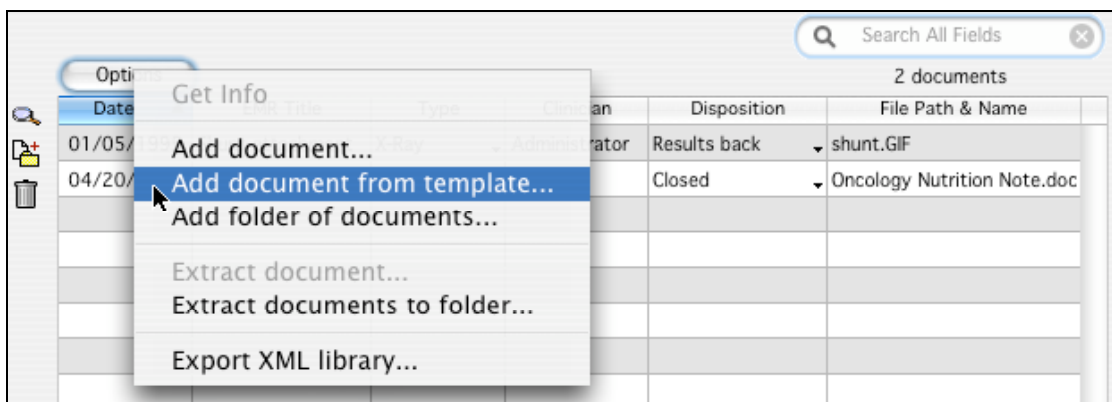


Figure 5 “Selecting ‘Add document from template...’”

At this point, the document will open using the application associated with the file (e.g., MS Word). When editing is complete, just save the document using the MS Word “Save” command from the “File” menu.

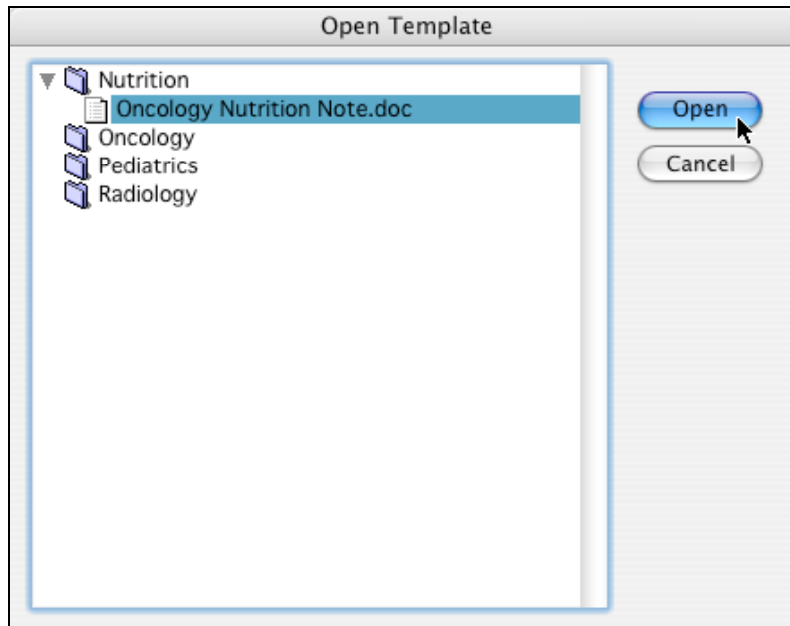
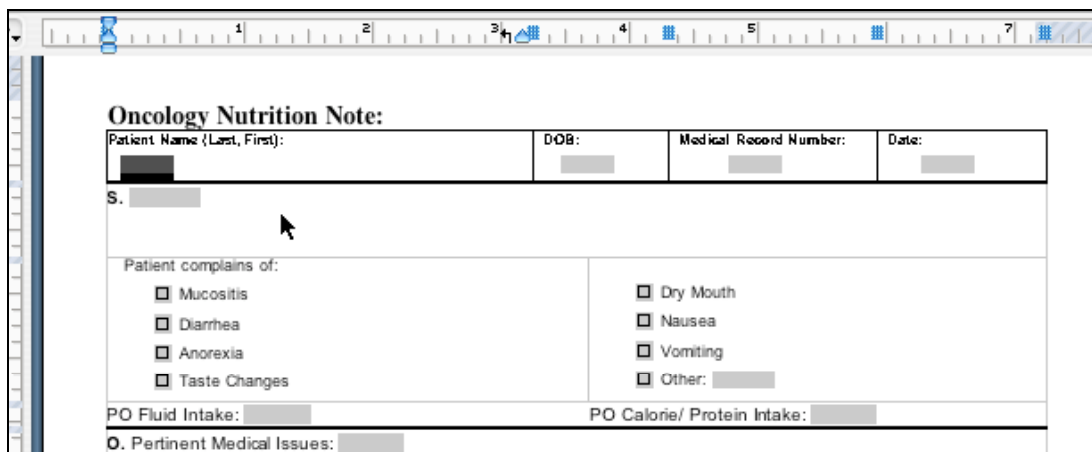


Figure 6 “List of available templates within the defined categories”

Editing and Saving

A document that has already been stored in the FileCabinet, or is just being added from a template, can be edited and stored back into the FileCabinet (i.e., if privileges allow). Editing is done on a copy of the original document that is placed in a temporary folder on the client computer. The user may then save the document and store it once again in the server FileCabinet (replacing the original). Figures 7 thru 9 show the typical steps for editing a template, saving, and then storing in the FileCabinet.



Oncology Nutrition Note:			
Patient Name (Last, First):	DOB:	Medical Record Number:	Date:
[Redacted]	[Redacted]	[Redacted]	[Redacted]
S. [Redacted]			
Patient complains of:			
<input type="checkbox"/> Mucositis	<input type="checkbox"/> Dry Mouth		
<input type="checkbox"/> Diarrhea	<input type="checkbox"/> Nausea		
<input type="checkbox"/> Anorexia	<input type="checkbox"/> Vomiting		
<input type="checkbox"/> Taste Changes	<input type="checkbox"/> Other: [Redacted]		
PO Fluid Intake: [Redacted]		PO Calorie/ Protein Intake: [Redacted]	
D. Pertinent Medical Issues: [Redacted]			

Figure 7 “Template is opened (for editing) in MS Word”

Once the file is saved (and closed), the Med-Center dialog shown in Figure 8 is confirmed to update the document in the FileCabinet.

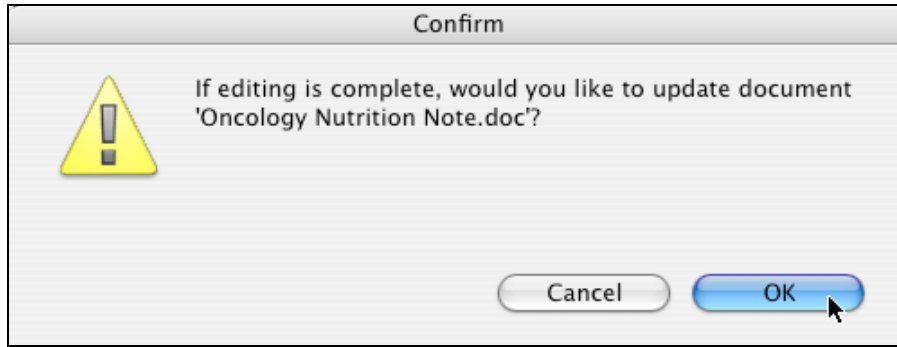


Figure 8 “Updating the document after editing”

For the times when the document has already been saved under a given name, Med-Center will ask what to do. The dialog shown in Figure 9 would allow the document to be replaced or a new one created with a unique name.

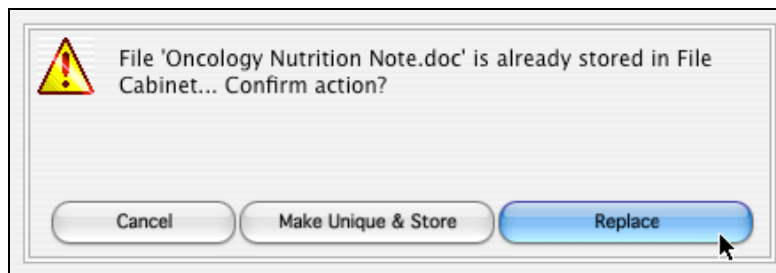
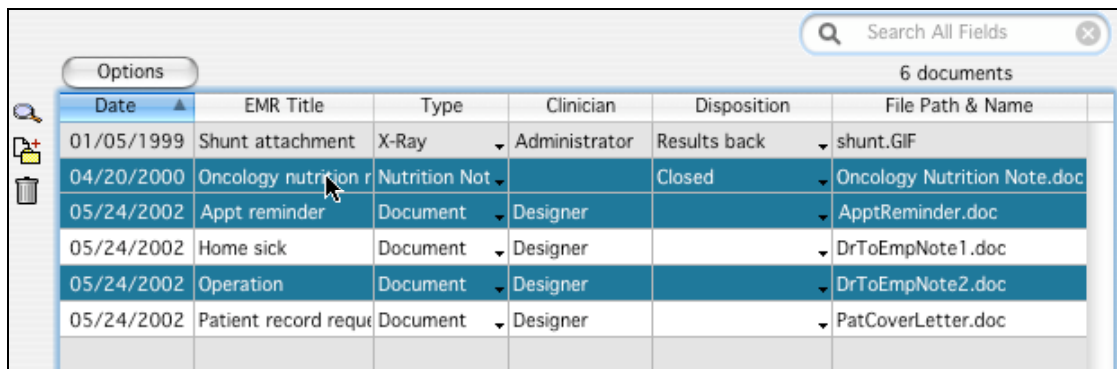


Figure 9 “Choice to ‘Make Unique & Store’ or ‘Replace’”

Extracting Documents

Extracting documents from the server allows patient information to be shared with other providers. The extraction technique may also be used to create information sets for delivery to the patient to comply with their right to access their medical records. The extracted documents may be combined with other Med-Center reports for a complete record set. Figures 10a and 10b show the technique for extracting documents to a folder on the client computer. Documents may be extracted individually or selected by highlighting one or more document items.



A screenshot of a software interface showing a table of documents. The table has columns for Date, EMR Title, Type, Clinician, Disposition, and File Path & Name. There are 6 documents listed. A search bar at the top right says "Search All Fields".

Date	EMR Title	Type	Clinician	Disposition	File Path & Name
01/05/1999	Shunt attachment	X-Ray	Administrator	Results back	shunt.GIF
04/20/2000	Oncology nutrition r	Nutrition Not		Closed	Oncology Nutrition Note.doc
05/24/2002	Appt reminder	Document	Designer		ApptReminder.doc
05/24/2002	Home sick	Document	Designer		DrToEmpNote1.doc
05/24/2002	Operation	Document	Designer		DrToEmpNote2.doc
05/24/2002	Patient record requ	Document	Designer		PatCoverLetter.doc

Figure 10a “Selecting one or more documents to export”

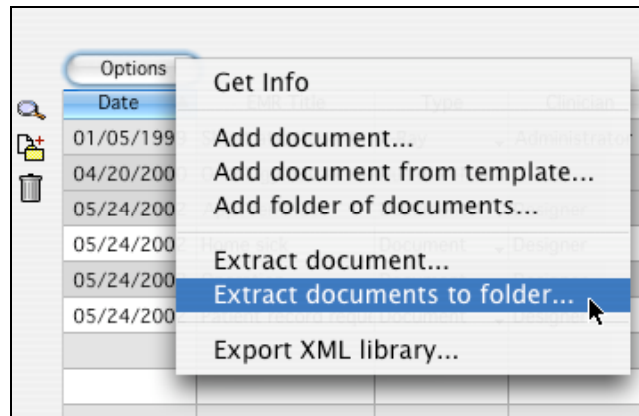


Figure 10b “Option to extract documents to a folder”

Searches, Sorts, and Selections

For patients with large quantities of stored documents in the FileCabinet, the search field may be used to find a subset. The search considers all of the listed field columns (the default option), or within a selected field column selected by the search pop-up. The wildcard character “@” may be used within the search text to represent any other set of characters. The search is nearly instantaneous, and will automatically be sorted based on the primary sort field. The sort field (and direction) can be changed by clicking on the column header of the new field. Figure 11 shows an example search with the resulting documents sorted by date. Note that there is an additional filter for “All” or by “Case” shown in this example. This filter option is available when displaying documents from within the Cases screen.

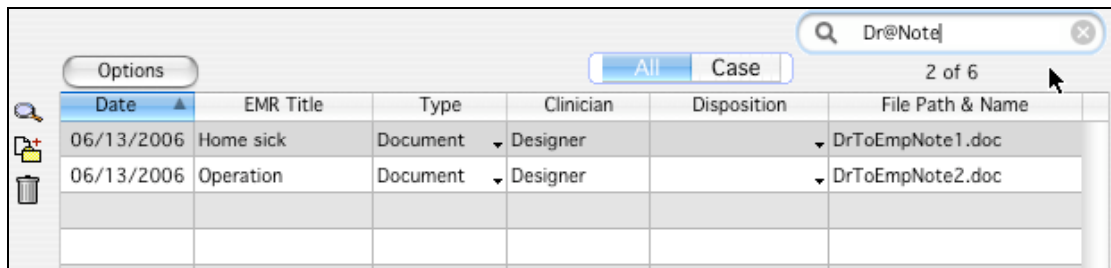


Figure 11 “Using the search field to find documents”

Contextual Options (Right Mouse Click)

Contextual options can be initiated by a right mouse click on a document (See Figure 12). The “Get Info” option opens the Contact or EMR detail record. If the Contact or EMR record has an associated stored document, the remaining options related to document storage are enabled. Double clicking on a document line (when a stored document is attached) will open the document for viewing.

Technical Note – Stored Documents and the FileCabinet

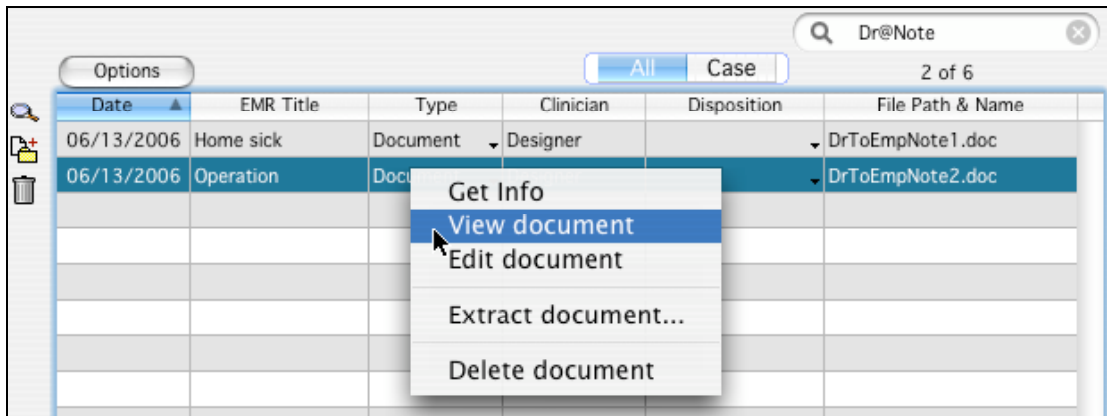


Figure 12 “Contextual options”

Editing List Fields

Selected list fields can be edited directly by clicking on the field (e.g., title, type, author, and disposition) [see Figure 13]. The tab key may be used to jump to the next field in the list. Field for “Type” and “Disposition” has pop-up choice lists to choose from. The choice lists may be customized using the list editor that is available within the Administrator module.

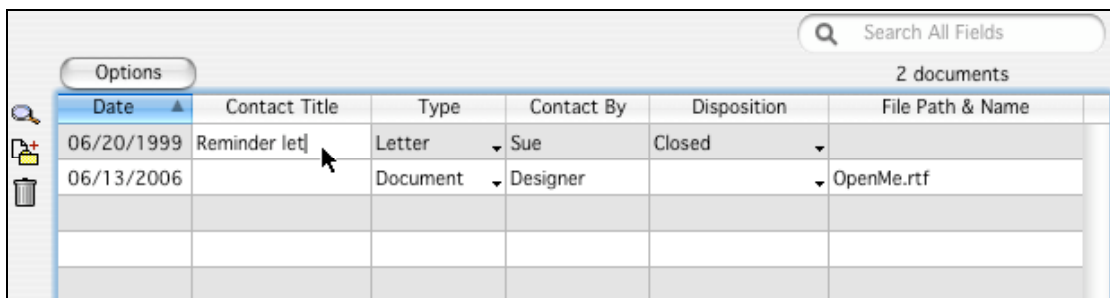


Figure 13 “Editing fields within the list”

Summary

The stored document features and use of the server based FileCabinet folder allows patient electronic documents to be stored in one central repository. Med-Center manages the storing and extracting of the documents and tracks the access when viewed or modified.