

doc types

by Susan C. Litton, Ph.D.



& shrink-art.com

an online billing/practice management application

for mental health professionals





This project was undertaken at The Art Institute of Atlanta as partial requirement for the courses below:

IMD 465: Senior Project Design
IMD 485: Senior Project Production

September 7, 2007

Revision 1: April 10, 2006
Revision 2: April 16, 2006
Revision 3: September 28, 2006
Revision 4: December 12, 2006
Revision 5: September 7, 2007





table of contents

Project Concept.....	15
I. Introduction	15
Project Definition	15
Background Information	15
II. Personal Objectives/Career Goal.....	16
III. Communication and Business Objectives	16
Communication Objective.....	16
Business Objective.....	17
IV. Target Audience	17
V. Competition/Inspiration.....	18
VI. Skills.....	20
XHTML:	20
PHP:.....	20
CSS:.....	20
MySQL:.....	20
Merchant Accounts:	20
Design/Artistic:	20
Writing:.....	20
Other:	21
Browser/Platform:	21
VII. Resources	21
Human Resources.....	21
Technical Resources	22
Financial Resources.....	22
Deliverables Proposal.....	23
I. Introduction	23



II. Competitive Analysis.....	24
III. User Definitions and Preliminary User Task Matrix, Application Feature List & Survey..	25
IV. Logo, Design Concept Note, Design Comp & Completed Survey	25
V. Detailed Site Map & HTML Prototype	25
VI. Concept Prototype Beta Version	26
VII. Project Presentation.....	26
VIII. Project Proposal & Final Concept Prototype.....	26
Competitive Analysis.....	27
I. Project Objectives and Goals	27
Cost:.....	27
Features:.....	27
Data Safety:	27
Look and Feel:.....	27
Support:.....	27
Upgradeability:	28
II. Identified Competitors	28
A. Commercially Marketed Products.....	29
B. Independently Developed Products	29
C. Online Products	29
III. Brief Description of Each Product.....	29
Therapist Helper.....	29
ShrinkRapt.....	29
TherapySOFT	29
PBS: Psychiatrist's and Psychologist's Billing Software	30
PracticeEasy	30
EagleSoft Solutions.....	30
MyClientsPlus	31
MedAxis Online Practice Management System	31
IV. Competitor Ratings on Stated Objectives and Goals	32



A. Cost:	32
Therapist Helper: ☆	32
ShrinkRapt: ☆☆	32
TherapySOFT: ☆☆	33
PBS: Psychiatrist's and Psychologist's Billing Software: ☆☆	33
PracticeEasy: ☆	34
EagleSoft Solutions: (unable to be rated)	34
MyClientsPlus: ☆☆☆	34
MedAxis Online Practice Management System: (unable to be rated)	34
B. Features:	34
Therapist Helper: ☆☆☆	34
ShrinkRapt: ☆☆☆	36
TherapySOFT: ☆☆☆	37
PBS: Psychiatrist's and Psychologist's Billing Software: (unable to be rated)	37
PracticeEasy: ☆☆☆☆☆	38
EagleSoft Solutions: (unable to be rated)	39
MyClientsPlus: ☆☆☆☆☆	39
MedAxis Online Practice Management System: ☆☆☆	40
C. Data Safety:	41
Therapist Helper: ☆☆☆	41
ShrinkRapt: (unable to be rated)	41
TherapySOFT: (unable to be rated)	41
PBS: Psychiatrist's and Psychologist's Billing Software: (unable to be rated)	41
PracticeEasy: ☆☆☆	42
EagleSoft Solutions: (unable to be rated)	42
MyClientsPlus: ☆☆☆☆☆	42
MedAxis Online Practice Management System: ☆☆☆	42
D. Look and Feel:	43
Therapist Helper: ☆☆☆☆☆	43
ShrinkRapt: ☆☆	44
TherapySOFT: ☆☆☆	45



PBS: Psychiatrist's and Psychologist's Billing Software: ☆	46
PracticeEasy: ☆☆	46
EagleSoft Solutions: ☆☆	47
MyClientsPlus: ☆☆☆☆	48
MedAxis Online Practice Management System: ☆☆☆	49
E. Support:	49
Therapist Helper: ☆☆	49
ShrinkRapt: ☆☆	50
TherapySOFT: ☆☆☆	51
PBS: Psychiatrist's and Psychologist's Billing Software: (unable to be rated)	51
PracticeEasy: ☆	52
EagleSoft Solutions: ☆☆☆	52
MyClientsPlus: ☆☆	52
MedAxis Online Practice Management System: ☆☆	53
F. Upgradeability:	53
Therapist Helper: ☆☆	53
ShrinkRapt: ☆☆	54
TherapySOFT: ☆☆	54
PBS: Psychiatrist's and Psychologist's Billing Software: ☆☆	54
PracticeEasy: ☆	54
EagleSoft Solutions: (unable to be rated)	54
MyClientsPlus: ☆☆	54
MedAxis Online Practice Management System: (unable to be rated)	55
V. Conclusion and Recommendations	56
A. Overall Ratings	56
Therapist Helper: ☆☆☆	56
ShrinkRapt: ☆☆☆	56
TherapySOFT: ☆☆☆	56
PBS: Psychiatrist's and Psychologist's Billing Software: ☆☆☆	56
PracticeEasy: ☆☆☆	56



EagleSoft Solutions: ☆	56
MyClientsPlus: ☆☆☆	56
MedAxis Online Practice Management System: ☆☆	56
B. Recommendations	56
Focus heavily on customer support.	56
Focus on seamless, free and ongoing upgradeability.	57
Offer a lower price.	57
User Definitions	59
Therapists	59
Therapist #1	59
Therapist #2	59
Therapist #3	60
Therapist #4	61
Therapist #5	61
Therapist #6	61
Independent Billing Contractor (Offsite)	62
Onsite Practice Manager	62
General User Findings and Summary	63
User Groups	63
Big Picture Issues	63
Specific Tasks	64
Preliminary Application Feature List	67
Should Have	67
Would be Nice	67
Discussion of Each Task	67
Client Information	68
Session Information	68
Billing Information	69



Insurance Information	70
Therapist Information	70
Print HCFAs.....	71
Print Statements	71
Reports	72
Other (the 'would be nice' items)	72
Preliminary User Task Matrix	73
Survey	75
Results	76
Summary of Findings	85
Logo and Style Guide.....	87
Design Concept Note.....	89
Introduction	89
Color Palettes.....	89
Font Selection	91
Layout.....	91
Proximity	91
Contrast	91
Alignment	91
Repetition	92
Design Comp	93
Site Map.....	95
Wire Frames.....	97
Generic Layout	97
Original Layout:.....	98
Current Layout:	98
Explanation of the Generic (Current) Layout	100
Individual Page Layouts and Features.....	101



Clients/Sessions/Payments: Active	101
Clients/Sessions/Payments: Inactive.....	102
Schedule: Daily	103
Schedule: Weekly	104
Schedule: Monthly.....	105
Reports/Statements/HCFA: Memorized	106
Reports/Statements/HCFA: Custom	107
Libraries: Diagnoses	108
Libraries: CPT Codes	109
Libraries: Therapists	110
Libraries: Insurance Companies	111
Help: Quick Start	112
Help: Index.....	113
Help: Tutorials	114
Database Model	115
Clients Region	116
Insurance Region.....	117
Providers Region	118
Sessions Region	119
Payments and Help Regions.....	120
Final Prototype	121
URL	121
Clients/Sessions/Payments: Active	121
A Single Client Record.....	122
The Single Client Transaction Register Expanded	123
Single Client Summary Table	124
Single Client Family Info.....	125
Single Client Appointments	126



Single Client Medications.....	127
Schedule.....	128
Reports: Memorized.....	129
Reports: Custom.....	130
Libraries: Diagnoses.....	131
Help: Quick Start.....	132
Help: Index.....	133
Usability Study.....	135
Goals.....	135
Criteria for Measuring Current Effectiveness.....	135
Criteria for Measuring Future Success.....	135
Planning the Usability Test.....	135
Entering Data.....	136
Finding Information.....	136
Icon Recognition.....	136
Program Setup.....	136
An Unexpected Initial Subject.....	137
The Usability Test, Part I: Entering Data.....	138
Logon to Program.....	138
Enter Client Information.....	138
The Usability Test, Part II: Finding Information.....	140
Information on a Therapist.....	140
Session Information.....	140
Billing and Payment Information.....	140
The Usability Test, Part III: Icon Recognition.....	141
The Icons.....	141
The Scenarios/Words.....	141



Results and Findings	143
Quantitative Data, Parts I & II: Individual Statistics	143
Quantitative Data, Parts I & II: Summary Statistics	144
Qualitative Data, Parts I & II: Individual Feedback and Observations	145
Quantitative Data, Parts III: Icon Recognition Individual Statistics	149
Quantitative Data, Parts III: Icon Recognition Summary Statistics	152
Discussion	153
General Findings	153
The Users.	153
The Application.	153
The Rough Spots.....	153
Limitations to the Study.....	158
Conclusions	159
Appendix I: Videos of the Usability Tests	161
References	162





Project Concept

(revisions on 4/10 - 4/16/06, 9/28/06 and 8/18 - 9/11/07)

I. Introduction

Project Definition

The goal of this project is to develop an online, relatively inexpensive office management/billing application for mental health care professionals. The name of the application will be docTypes. Since the application will be on the Web as opposed to on the client's computer, it will be readily available to the user from any computer that's connected to the Internet. The developer will seek to follow principles similar to those used by the 37signals group (Getting Real). DocTypes is intended to be the cornerstone of a parent business that will also design and build websites and content management systems for the same target audience (mental health practitioners). The name of the parent company will be Shrink Art (<http://shrink-art.com>), capitalizing on the fact that the owners, Susan Litton, Ph.D. and Anne Danner, LPC, are both practicing mental health professionals as well as being website developers/graphic designers.

Background Information

Many independent health care practitioners have been slow to jump on the website bandwagon. Consumers, however, have been much less reticent. One study done in 2002 found that the number of U.S. adults using the Internet to find health information surpassed 98 million (Miller). That number had doubled in only two years and is undoubtedly much higher today. Also, although consumers are sometimes reticent to trust commercial health websites, Pastore found that consumers would view web sites of physicians as being trustworthy. Even more importantly, the same study found that 63 percent of consumers would switch to a doctor who had a Web site with credible content, appointment scheduling capabilities, or secure communication channels (Pastore).

Additionally, as practice management issues such as billing, insurance authorizations and HIPAA requirements have become more complex, practitioners are beginning to look for practical solutions that are affordable both in terms of money and time. Miller estimates that almost one-third of the \$1.3 trillion spent on healthcare today can be attributed to the inefficiencies of the current, paper-dependent system. For this as well as ecological reasons, more and more offices are going toward a paperless model (Miller).



It is felt that since most health care professionals have neither the time nor the interest to do much research on the topic, that they might appreciate a “one-stop-shop” for their practice management needs from a professional who could understand their specific concerns as a mental health care provider as well as have a solid grasp of the Web design/development industry. Shrink Art will attempt to provide that.

II. Personal Objectives/Career Goal

An obvious part of my personal goal for developing this application is that I believe there is a niche for it. Although therapists have been slow to embrace technology, they do come around. As clients, government and the insurance industry demand more up to date ways of doing things, more and more therapists are discarding their beloved green, columnar formatted ledger book in favor of a new computer. However, many of those who have made this leap, have subsequently become frustrated by the software available to them for the daily tasks they need to do. They complain that the software is too expensive, has too steep a learning curve or is poorly supported. I believe they would, over time, jump on an opportunity to have an application that did what they needed it to do, was reliable, easy-to-learn and didn't cost an arm and a leg.

A less obvious though equally exciting personal goal has more to do with what I can learn by doing this project. In many of the classes I've taken so far, I've felt frustrated because I learned new things that I either didn't have time to implement or that I tried to implement and couldn't get totally debugged. At other times, there have been things I've wanted to learn, but again, time has interfered. My goal with docTypes is to fill in some of these gaps with a project I can sink my teeth into. My hope is to create an application that is equally as solid technically as it is artistically. I want it to be state-of-the-art, user-friendly, attractive and well-thought out, both in its design and under the hood.

III. Communication and Business Objectives

Communication Objective

The primary communication objective of docTypes will be to develop a user-friendly, web-based application that mental health care professionals will find helpful for their daily



practice management tasks. The application will be easy to navigate and understand even by non-web-savvy individuals.

Business Objective

The main business objective of this project is to produce an office management application that will be highly marketable to health care professionals. This will be accomplished via the following steps:

1. Deliverables Proposal
2. Competitive Analysis
3. User Definitions
4. Application Feature List
5. Preliminary User Task Matrix
6. Survey
7. Logo and Style Guide
8. Design Concept Note, Design Comps
9. Detailed Site Map
10. Wire Frames
11. Database Model
12. Prototype
13. Usability Study
14. Final Project
15. Project Presentation

IV. Target Audience

The primary target audience for this application will be mental health care professionals including those in private practice or group practices as well as mental health professionals working in agencies. At a later date, it may also be possible to use the docTypes model to develop similar applications for other non-medical health care practitioners such as chiropractors and physical therapists.



V. Competition/Inspiration

My inspiration for doing this site has come from two sources – one positively motivated and the other negatively motivated. The positive motivation comes from my insatiable appetite for learning programming. Typically, we're most drawn to things we have an inherent talent for. This is not the case with me and programming. I have to go over a concept many times before it finally sinks in. Often, my classmates seem to be off and running with an idea while I'm still at the starting gate trying to figure out what just happened and where everybody went. And yet, I love it. I get excited when I can actually figure something out on my own. When, with my instructor's encouragement, I came up with this particular idea for my senior project, I felt that I finally had a project I could truly love and be passionate about. Truth is, I can hardly wait to dig in and start coding.

The negative motivation comes from my frustration as a therapist using a billing software called Therapist Helper. I was delighted to read that the 37signals developers suggest that one of the keys to successful software development is to have an enemy (Getting Real). I definitely do – and I'm not alone. Therapist Helper is reasonably decent – not flawless, but it does most of what I need it to do. However, the company has become increasingly frustrating to work with. At this point, the software is priced beyond what most therapists in private practice are willing to pay. The current price is in the \$900 range. If you want to have the program installed on your office computer and a copy on your home computer or laptop, you have to buy two copies of the software. If your computer crashes or you buy a new one – you shell out yet another \$900 for a new version of the software. In the beginning, Therapist Helper was a mom and pop type of shop and when I had to call for technical support, I found that mom and pop were not overly warm and fuzzy. Once I called with a simple yes/no question and was told that I'd need to sign up for a year's worth of maintenance with them before they would answer. I've gotten so upset with these people that I actually haven't contacted them or checked their site in several years so they may have improved their customer service. However, given my experiences with them in the past, I rather doubt it.

I don't have grandiose ideas of being able to create an application with PHP that does everything Therapist Helper does. However, I do think I may be able to design a reasonably simple PHP/MySQL database application that will allow independent practitioners to do most or all of the common tasks they need to do on a regular basis. An obvious advantage to this type of solution is that since it's on the Web, they'll be able to access it from as many computers as they want. Any bugs that get spotted can be fixed



behind the scenes as opposed to users having to wait for a new release of the software and buy an entirely new version. Hopefully, the application I build, though simple in nature, will be all that most mental health care practitioners really need.



VI. Skills

XHTML: My goal is to validate docType for transitional XHTML. I've done this on other projects but more recently, I've been slack about it.

PHP: By the time this project is over, I hope I will be able to do routine types of coding tasks in my sleep. Achieving that goal alone would make the project seem worthwhile. I'd also like to finally have time to try out some of the PEAR packages. I can envision needing to write some of my own classes. (Gulp!) I will probably also need to explore some existing classes for printing to pdf, generating emails, and other tasks I've yet to foresee.

CSS: Eventually, docTypes may be hosting hundreds, thousands or even tens of thousands of these applications so it will be very important to keep content, structure, logic and design separated. CSS is another skill I love and will enjoy improving as I work on the project.

MySQL: Although I don't intend to become a MySQL guru with this project, a certain amount of ability with MySQL will be necessary. Even though I'm fairly weak in this area, I feel I'll be able to find and apply the information I need.

Merchant Accounts: I've never had a merchant account for my own practice, so I know very little about how or what you need to do to allow a patient to pay for services with a credit or debit card. However, I feel this is an area I need to become at least somewhat versed in because although not totally necessary, some therapists might like to use docTypes to process credit cards from their patients.

Design/Artistic: The design of Shrink Art will be a look and feel that is both professional and inviting. A site that is overly "artsy" as well as one that is overly informal or "techie-looking" might be off-putting to health care professionals. The former might be seen as a bit obtuse or non-user-friendly; the later might be seen as not having a professional feel. Thus the goal will be to aim for something in-between.

Writing: The writing in docTypes will also strive for a middle-of-the road "friendly yet professional" style. In looking at the site, the manual, or the application itself, I would like for clients to feel that they are communicating with me – a real person and a peer – someone who understands their needs, sincerely wants to give them a good product and is not going to go all techno-speaky on them.



Other: Since I'll be storing data that's very sensitive in nature, I'll need to research how to set up SSL or other types of security measures. I may need dedicated servers. I anticipate that maintaining client confidentiality will be one of the issues that therapists will be most concerned about when considering migrating to a web-based application so choosing the most appropriate security measures will be essential. Also, since the possibility of losing data will most likely also be high on the list of concerns, I'll need to investigate and set up some cron jobs to do backup tasks for me. I know very little about any of these things so will need to learn.

Browser/Platform: All pages on docTypes will be checked on both Mac and PC with a variety of common browsers.

VII. Resources

Human Resources

I need several types of human resources for this project. First, I'll need therapists to tell me what they want and need in this kind of product. At this point, I'm thinking of breaking this down into two groups. The first group of therapists would primarily be friends in the Atlanta area who agree to sit down with me and brainstorm about what this application should be. I've already contacted several who have agreed to help. The data gathered from this group will be used to create an online survey. I'm hoping to be able to get email lists from some state and/or national agencies for distributing a link to the survey. This data from the surveys will be used to help determine which features to include as well as which to omit from the software.

Other human resources will include help and guidance from faculty at the Art Institute of Atlanta, specifically Aaron Walter and Ameeta Jadav. Additionally, I've contacted a woman named Jelena Pavlovic, whom I met on sitePoint.com to see if she could offer some additional assistance when I hit programming snags in the middle of the night. I've gotten a fair amount of help in the past from the forums at sitepoint.com and phpbuilder.com and those resources continue to be available.



Technical Resources

The project will require a PC, a Mac (for testing) and Dreamweaver, Photoshop and Illustrator. As the project nears its final phases before release, I also plan to develop a batch of tutorials using TechSmith's Camtasia Studio. I have PHP installed locally; would like to also figure out how to install MySQL on my machine so I can test my database connections locally as well. Additional hardware or software needs may become apparent as things evolve.

Financial Resources

I anticipate several fairly small to mid-sized financial requirements. I've offered to pay Jelena for her help, and I'm also offering to pay for email lists of therapists from the various agencies I've contacted. I paid a small fee to Zoomerang.com for the online survey I plan to build. There may be fees for 3rd party plug-ins such as for the calendar and/or for an edit-in-place interface. I may need to consult with an attorney to iron out HIPAA details. Assuming I do decide to market the product, there will be advertising and marketing expenses. There will be fees for setting up a secure server. I'm sure additional fees will come up once I get into the development process, but I'm not anticipating that any of these will be exorbitant.



Deliverables Proposal

(revisions on 4/10 and 4/16)

I. Introduction

The docTypes project will be divided between two courses at The Art Institute of Atlanta: Senior Project Design (Senior Project I) and Senior Project Development (Senior Project II). The majority of the planning and design work will be accomplished during Senior Project I, whereas most of the actual coding, database work and final usability testing will be achieved in Senior Project II.

Because this is a fairly large scale project that I'm hoping to actually market, I'm planning to implement a three-phase user analysis. The first phase will involve brainstorming sessions with some mental health care practitioner friends to get ideas and to gather initial user information. Based on the results of that, the second phase will be to conduct online surveys using email lists of various mental health care agencies. Results from the survey would then be used to make final decisions about which features to include in a beta version of the application, how to best implement them, etc. Once the beta version has been built, the final phase of usability testing will be to develop a semi-formal usability test and administer it to 4 - 5 mental health professionals.

Since the information from the surveys will take awhile to dribble in, I'm planning to postpone the database structure & process flow diagrams document for Senior Project II. Since that piece is crucial and also fairly time intensive, I'd rather, as much as possible, get it right the first time, as opposed to doing it and then redoing it after analyzing the results from the surveys.

Also, thinking about doing this project feels a bit like being a juggler trying to keep a lot of balls in the air at one time. With some documents, it may not be possible to gather all of the information I need before the deadline. Those situations will be so noted on the document and the missing information will be added as I get it.



II. Competitive Analysis

The competitive analysis will consist of the following sections:

- Introduction
- Project Objectives and Goals
- Identified Competitors (rated)
- Conclusion and Recommendations

Sites to be considered for review are:

<http://helper.com/index.htm>

<http://www.shrinkrapt.com/>

<http://www.getphysicalsoftware.com/>

<http://www.blumenthalsoftware.com/>

<http://www.medipro.com>

<http://www.myclientsplus.com>



III. User Definitions and Preliminary User Task Matrix, Application Feature List & Survey

Preliminary user definitions will be developed based on material gathered from the brainstorming sessions with other health care professionals. These will be similar to persona descriptions except that each description will be based on information from a real person. From this information, a preliminary user task matrix and application feature list will be developed. These may be tweaked later once survey results have been compiled. In addition, the specific questions for the survey will be written and posted for feedback. The original idea was to delay building the survey until after the logo and design comps have been completed. This would have allowed the survey to include the logo and some additional branding components. However, the name of the application, thus also the logo, proved to be elusive. Final decisions about name, branding and logo weren't made until over a year after completion of Senior Project I. For that reason, the survey had minimal branding.

IV. Logo, Design Concept Note, Design Comp & Completed Survey

The docTypes logo will consist of the word "docTypes". The look and feel of the word "doc" will resemble the logo of the parent company, shrink-art. The look and feel of the word "Types" will be a typewriter style font. The Design Concept Note will include information on things such as layout, font and color choices. The Design Comp will be a non-working prototype of the home page of the docTypes site and/or non-working prototypes of some of the forms in the application itself.

V. Detailed Site Map & HTML Prototype

Much of the work for completing the site map and HTML prototype will be conceptual in that it will be important to develop a way of presenting the application that will be easy to understand by a potential customer. The prototype will have some styles added but it will not be considered a finished product. It will be designed to give the user a working example they can click through to see how various tasks will be accomplished. This will allow for an opportunity for adjustments and enhancements to real-life usability issues that may arise. Places where a screen would normally be populated from a database will have hard-coded data.



VI. Concept Prototype Beta Version

The original idea was to have an HTML prototype that was devoid of most or all styles. The concept prototype was intended to be a “skinned” version of the HTML Prototype. However, the developer found that it was impossible to separate the two. It was necessary to include at least some styles from the beginning since styles were used for layout. For this reason, the HTML prototype and the concept prototype beta were one in the same.

VII. Project Presentation

All revisions developed as a result of the beta version and all previous deliverables will be completed by and presented on September 7th.

VIII. Project Proposal & Final Concept Prototype

All deliverables will be organized into the final Project Proposal and presented to the instructor along with the Final Concept Prototype on a CD.



Competitive Analysis

The purpose of a competitive analysis is to review existing applications to learn their strengths and weaknesses. In this way, it can be determined whether there seems to be a market for the product you're building and what features might make it more appealing than those that the competition is offering. The competitive analysis will consist of the following sections:

- ☑ Project Objectives and Goals
- ☑ Identified Competitors
- ☑ Conclusion and Recommendations

I. Project Objectives and Goals

The docTypes application will seek to meet the following business objectives:

Cost: docTypes will provide a relatively inexpensive, cost-effective product.

Features: docTypes will strive for less, not more. In other words, it will not attempt to provide all possible features a practitioner might ever need, but rather, will provide those that are used regularly.

Data Safety: Data entered into a docTypes application will be secure and will be automatically backed up on a regular basis.

Look and Feel: The docTypes site as well as the application will strive for a friendly though professional look.

Support: docTypes will offer a variety of ongoing support options. Customer service will be seen as next in importance only to the security and functioning of the application itself.



Upgradeability: Because all docTypes apps will live online, revisions due to bugs and/or adding new features will automatically be added to all existing accounts at no additional charge.

All products in the competitive analysis will be rated on these objectives.

II. Identified Competitors

A search for medical practice management software yields many choices – all seemingly offering similar features and all very expensive. One such search yielded this site, which lists 134 possible solutions to your practice management needs:

<http://www.capterra.com/medical-practice-management-software>

However, medical software has many features that aren't only unnecessary for non-medical types of health care practitioners, but that actually get in the way. A therapist, for example, doesn't need to know if his patient has been put in a room or whether he's in the lab getting tests, nor does he need to be able to call up his x-rays. Also, the medically-oriented software is extremely expensive, prohibitively so for non-medical practitioners. For those reasons, software that is specifically aimed at large scale medical practices was not considered for this analysis.

A search for therapist practice management/billing software produces much different results. There are two big contenders in this market: Therapist Helper and ShrinkRapt. These products have been around awhile and are advertised in journals and publications that are read by mental health care providers. However, many therapists, for a variety of reasons, do not like either of these products and have looked for other solutions. Some of these solutions have been a "somebody knows somebody who knows a programmer who wrote a program for them and I think he'll sell it to you, too" kinds of products. Finally, a very few companies are beginning to offer online practice management kinds of products. Thus, this analysis will consider representative types in each of these three categories: commercially marketed products, independently developed products and online products.



The following specific applications will be reviewed:

A. Commercially Marketed Products

Therapist Helper (<http://helper.com/index.htm>)

ShrinkRapt (<http://www.shrinkrapt.com/>)

TherapySOFT (<http://www.getphysicalsoftware.com/>)

B. Independently Developed Products

PBS: Psychiatrist's and Psychologist's Billing Software

(<http://www.blumenthalsoftware.com/>)

PracticeEasy (no website that I could find)

EagleSoft Solutions (<http://www.eaglesoftsolutions.com/>)

C. Online Products

MyClientsPlus (<http://www.myclientsplus.com/>)

MedAxis Online Practice Management System (<http://www.medipro.com/>)

III. Brief Description of Each Product

Therapist Helper

A commercial product, probably used by more therapists than any other billing/practice management application.

ShrinkRapt

Probably the second contender in the market.

TherapySOFT

This is an amazing company in that they offer practice management solutions for a large number of professions. Specifically, they offer software for each of the following:



Fitness, Medical, Recreation, Health, Sports, Schools, Performing Arts, Martial Arts, Yoga, Dance, Gymnastics, Massage, Pet Care, Therapy, Fitness, Personal Training, Camping, Music, Beauty, Tennis, Golf, Pilates, Boating, Swimming, Preschools, Cheerleading and Equestrian Centers.

My guess is they built one product and then adapted it which in some ways, is admirable. They also sell bar code readers, receipt printers and cash drawers. TherapySOFT is the therapist software in this profusion of offerings but even here, the product is listed as being for “physical therapy, occupational therapy, speech therapy, psychotherapy, acupuncture, and all other types of rehabilitation practices.” Clearly an everything but the kitchen sink kind of company.

PBS: Psychiatrist’s and Psychologist’s Billing Software

A DOS-based product developed by a local man. A therapist I spoke with uses it and likes it except that the developer is not only not warm and fuzzy, he’s also not very helpful. If you have trouble with the software, you may well just be left hanging. Currently has a newer, non-DOS based version.

PracticeEasy

A database product built in FileMaker Pro by a developer in Atlanta. Built at the request of one therapist and now used by several others, just by word of mouth. He comes over and installs it on your computer. Anytime you need an upgrade, debugging, etc., it means another trip from the developer. Therapists who use it love it because they say it’s much more intuitive and user-friendly than Therapist Helper.

EagleSoft Solutions

This is another local developer who advertises with the Georgia Psychological Association in the journal that all Georgia psychologists receive. He offers two fairly specialized products: one for doing psychological testing and another that has something to do with filing for disability. DocTypes will not do either of these more specialized tasks. However, he also advertises that he will custom build practice management software for you. I haven’t seen any of it, nor does the site tell much about what you can expect. There is nothing terribly noteworthy or appealing



about this site except that I found it interesting that except for Therapist Helper and ShrinkRapt, this is the only other option many psychologists in Georgia may know about.

MyClientsPlus

This is the only site I found that is offering a product similar to docTypes and on first glance I'm very impressed with them. The software seems to have been developed by a group of technically-inclined folks who were married to therapist types. The tech types basically created the software for their spouses. The site is impressive – including displaying the valid stickers for XHTML, CSS and an SSL certificate. The product is currently in a beta version. It is not being actively marketed (I found it by Googling), although the owners boast about how many subscriptions they're getting, which may speak to the timeliness of developing this type of application.

The site is a nice combination of professional yet friendly. I smiled in appreciation when one section I read referred to some “stuff” they offer. In a similar vein, their support page has this sentence:

“To reach us via email please click on the link and let us know how we can help.”

Definitely therapist-speak and will put most therapist-types right at ease.

MedAxxis Online Practice Management System

This is the online offering by a larger company called MediPro. I'm really not sure what all it does and so far, I haven't had any luck trying to contact them for more information, despite the fact that their site says you can chat live with a representative at any time. The tagline on their site says:

“MedAxxis provides true revenue cycle management, enabling physicians to reduce expenses while increasing revenues.”

This makes it sound like they're trying to fill a different niche than I am, however, in other places, it sounds similar. Mostly I included this product because there really weren't many other online applications to compare with.



IV. Competitor Ratings on Stated Objectives and Goals

The analysis uses the following rating system:

Excellent:	☆☆☆☆☆
Good:	☆☆☆☆
Adequate:	☆☆☆
Fair:	☆☆
Poor:	☆

A. Cost: docTypes will provide a relatively inexpensive, cost-effective product.

Therapist Helper: ☆

Prices are not posted on their website. However, two colleagues told me their current rate is \$900 per installation. In my dealings with them, my understanding was that if I wanted a copy on both my home and office computers, I would have to purchase two separate copies.

ShrinkRapt: ☆☆

Macintosh Solo Practitioner Version: \$585.00

Windows Solo Practitioner Version: \$585.00

Macintosh Multiple Practitioner Version — for centers or clinics with one tax id number: \$985.00

Windows Multiple Practitioner Version — for centers or clinics with one tax id number: \$985.00

Add On Modules

Appointment Scheduler - Can be used to schedule patients or simply as a fast way to enter sessions: \$49.00

Electronic Claims For Macintosh Solo- Prepares file for submission to a clearing house: \$49.00



Electronic Claims For Windows Solo - Prepares file for submission to a clearing house: \$49.00

Electronic Claims For Macintosh Multi - Prepares file for submission to a clearing house: \$49.00

Electronic Claims For Windows Multi - Prepares file for submission to a clearing house: \$49.00

TherapySOFT: ☆☆

Unlimited Version: \$595.00 or 3 Payments of \$228.00

Lite Version: \$395.00 or 3 Payments of \$162.00

Lite Version is limited to first 300 entries (the only limitation) and can be upgraded at any time.

Available TherapySOFT Add-Ons

Networking Feature (Two Computers): \$398.00

Networking Feature (Additional Computers): \$199.00 ea.

Additional Schedules (5 Included): Priced By Quantity

HCFA Module: \$149.00

SOAP Module: \$99.00

HCFA/SOAP Combination Module: \$198.00

Mutiple POS (Single POS Station Included): \$99.00 ea.

Rentals Module: \$99.00

PBS: Psychiatrist's and Psychologist's Billing Software: ☆☆

PBSW2 (new purchase): \$595

PBS DOS to PBSW2 upgrade: \$400

PBSW1 to PBSW2: \$100



PBSW2 to PBSW3: \$200

Appointment Scheduler v3: \$200

CD of any/all of the above: \$25

Additional Telephone support (see below) : \$50 per hour. Minimum= \$25

PracticeEasy: ☆

Most recent price I have is \$595 – that was from several years ago. Also, this product is based on FileMaker Pro so you also have to have that installed on your computer. Current price for FMP is \$299.

EagleSoft Solutions: (unable to be rated)

No prices listed. Except for some software related to testing (which is a different focus than docTypes), what this company does is offer to build a custom software package based on your personal needs so each job is estimated differently.

MyClientsPlus: ☆☆☆

\$19.95 per month

MedAxis Online Practice Management System: (unable to be rated)

No info available

B. Features: docTypes will strive for less, not more. In other words, it will not attempt to provide all possible features a practitioner might ever need, but rather, will provide those that are used regularly.

Therapist Helper: ☆☆☆



Therapist Helper does it all and does it reasonably well. Many practitioners complain that it's not user-friendly and I suspect it's because it's so feature rich.

From their site:

Streamlines critical functions to accommodate solo practitioners or group practices.

View all your important billing data easily on one screen.

Single, split or multiple billing options are available depending on your needs.

Standard, easy to read bills and statements are ready to print or create your own layouts.

Billing data can be easily analyzed with user-friendly, pre-formatted reports or create customized reports.

Report data can be exported to Microsoft Excel for more in depth data analysis and graphing.

Bill for appointments by automatically posting to the billing ledger from the scheduler.

Safeguard your patients' Protected Health Information (PHI) with Helpers simple features such as hiding PHI from unauthorized eyes and setting access rights for office personal (*note: spelling error ("personal" instead of "personell") is straight from their site*)

The audit trail features in Helper software can also help you with HIPAA security compliance by allowing you to monitor login usage, edits, additions and deletions to patient records.

Easy color-coded time blocks to handle appointments for one or multiple therapists.



Search for open appointments by therapist, by therapist on a given day, as well as a specific patient's appointment.

Stay on top of authorizations by number of sessions, dollar amounts or by date. using Helper's Managed Care Tracking
(more errors)

Alerts for when a patient is nearing the last authorized session, the dollar capitation or authorization end date.

ShrinkRapt: ☆☆☆

Basically has the same feature list as Therapist Helper. I don't personally know anyone who uses ShrinkRapt, so I haven't heard any feedback about usability issues.

ShrinkRapt's feature list:

- Work from Patient List
- Professional Bills
- Completes HCFA 1500
- Tracks Referrals
- Flexible Fee Schedule
- Patient Intake Form
- Custom Report Editor
- Custom Search Editor
- Custom Label Editor
- Mailing Labels
- Aged Balance Report
- Address & Phone Lists
- Bank Deposit Slips
- Birthday Lists
- Tracks Insurance
- Clinical Notes
- Managed Care Alerts
- Automatic Adjustments



- Income Analysis
- Medications Tracking
- DSM/ICD Codes
- Fast Data Entry
- Single or Batch Printing
- Deactivate Patients
- Reactivate Patients
- Record Treatment Plan
- 1099 Insurance Report
- Imports For Easy Setup

TherapySOFT: ★★☆☆

Again, a similar feature list:

- Appointment Scheduling
- Treatments
- Accounts and Billing
- Financial Reports
- POS and Inventory
- Progress and Evaluation Notes
- Labels, Email, Letters
- Patient Check-in
- Staff & Phonebook
- ID Cards for Staff Members
- HCFA 1500 Forms Option
- S.O.A.P. Notes Option

PBS: Psychiatrist's and Psychologist's Billing Software: (unable to be rated)

Doesn't really have a feature list aside from this general statement:

"PBS has helped psychiatrists and psychologists manage their practices since 1977, providing single provider and multiple provider offices with a flexible inexpensive solution to the problems of billing and financial record keeping. The current PBS program, PBSW2, collects the data needed to



print insurance forms and statements to patients and provides a variety of options for printing and reporting on the practice.”

PracticeEasy: ★★★★★

PracticeEasy has done an excellent job of trimming the fat. It really does an amazing number of things and yet does it in a “no big deal” kind of way. People who use it describe it as useable right out of the box.

PracticeEasy’s feature list:

- Point & click billing, payments, credits, refunds
- Insurance reimbursement statements
- Receipts for non insurance covered fees
- Deposit slip reports for banks listing all checks
- Account history & ledger for each client
- Instant account update with each transaction
- Transactions ledger for entire practice
- Income & Income Categories reports
- Accounts Receivables report
- Monthly statements
- Case notes for each client
- Address labels & zip code reports for bulk mailing
- Easy mail merge – form & custom letters
- Workshop and Events registration & tracking
- Appointments Today list
- Group lists
- Easy to read screens
- Intuitive point & click operations
- Auto data fill eliminates redundant entry
- Preset data options eliminate errors
- Extensive automation eliminates tedious tasks
- Spell check and spelling alerts
- Duplicate record alerts
- Multiple data integrity controls
- Form and List views
- One click sorting



Easy data searches – no difficult queries to build
Records index for point & click finds
Optional payroll module available

EagleSoft Solutions: (unable to be rated)

Developing software small business **custom applications** (desktop and Internet based applications) including:

- User interface programs
- Database and data processing programs
- Data analysis and reporting programs
- Online data transaction processing programs

MyClientsPlus: ★★★★★

This company definitely shows the right attitude with this statement:

“Ever wonder why everyone doesn't carry a Swiss-army knife? Maybe it's because we aren't willing to sacrifice the extra size and weight of all those extra implements just so we can occasionally trim our fingernails :-). My Clients Plus is designed with that lesson in mind.”

Their feature list seems to cover most all of the bases. Currently, they don't offer credit card submissions, although they're working on it. Once they do have it up and running, they plan to offer it for free to subscribers with a one year contract.

MyClientsPlus' feature list:

- Track client sessions
- Track client payments
- Track insurance explanation-of-benefits (EOBs)
- Generate HCFA-1500s for primary or secondary insurance providers
- Generate client invoices
- Bill as often as you like (daily, weekly, monthly)



- Automatically track and invoice client co-pays
- View account detail by client; view or reprint invoices
- View total amounts due you (accounts receivable)
- Process credit card payments
- Default CPT codes for your type of practice
- Access from any computer, cell phone or PDA
- Electronic claims submission (future capability)

MedAxis Online Practice Management System: ☆☆

This system is definitely designed with medical professionals in mind and has many features that would just get in the way and be annoying to non-medical professionals.

Their feature list includes:

Front Office:

- Covers all aspects of complete financial management, including:
 - Scheduling
 - Claims transactions/electronic data interchange (EDI)
 - Billing, accounts receivable and daily reporting

Clinical:

- Streamlines patient care through encounter documentation, test requisition, prescription origination, workflow management and referral authorization with:
 - Call logging
 - Patient registration
 - Encounter and discharge
 - E-prescription capabilities
 - Computerized patient record

Communication management:

- Increases communication among staff and with patients via:
 - Personalized physician web sites
 - Message control center for lab results, refill and referral requests, and personal patient information.



Contact and demographic information updates
Educational and preventive care material
Patient surveys

C. Data Safety: Data entered into docTypes will be secure and will be automatically backed up on a regular basis.

Therapist Helper: ★★★

Data is password protected on the client's computer. Although users can set alerts to prompt them to backup their data, there is no automatic backup available. Thus, data backup is at the user's discretion. Also, unless specified otherwise, data will be backed up to the harddrive of the same computer the program is on, meaning that if the computer crashes, even the backup data is gone.

ShrinkRapt: (unable to be rated)

No information available

TherapySOFT: (unable to be rated)

No information available

PBS: Psychiatrist's and Psychologist's Billing Software: (unable to be rated)

No information available



PracticeEasy: ★★★

The version of this I viewed had been set up with a series of password protected screens you had to get through before you could access any of the data. Backups were user-dependent like Therapist Helper.

EagleSoft Solutions: (unable to be rated)

No information available but since he builds custom applications, chances are he could provide whatever you wanted.

MyClientsPlus: ★★★★★

"We do this for you utilizing carrier-grade procedures, offsite storage, and HIPAA-specified security procedures. Ironically, many professionals we interact with never back up their own computers! The risk, obviously, is that if their computer hard-disk were to fail, all of their crucial client information would disappear. So, with My Clients Plus, it's all taken care of for you."

MedAxxis Online Practice Management System: ★★★

Their backup processes seem adequate, although the fact that you have to pay for it brings it down to three stars:

Offers online backup for an additional charge:

Online Backup Plan

The base charge is \$39.95 per month for the initial provider and \$12.00 per month for each additional provider. Custom solutions can be arranged.

Setup

One-time setup fee of \$149.00.

Personal Recovery CD

Get your entire backup account delivered to you on CD. Great for



maintaining long term archives or accessing files when off-line. Up to 640 MB of your data per CD. \$24.95/CD

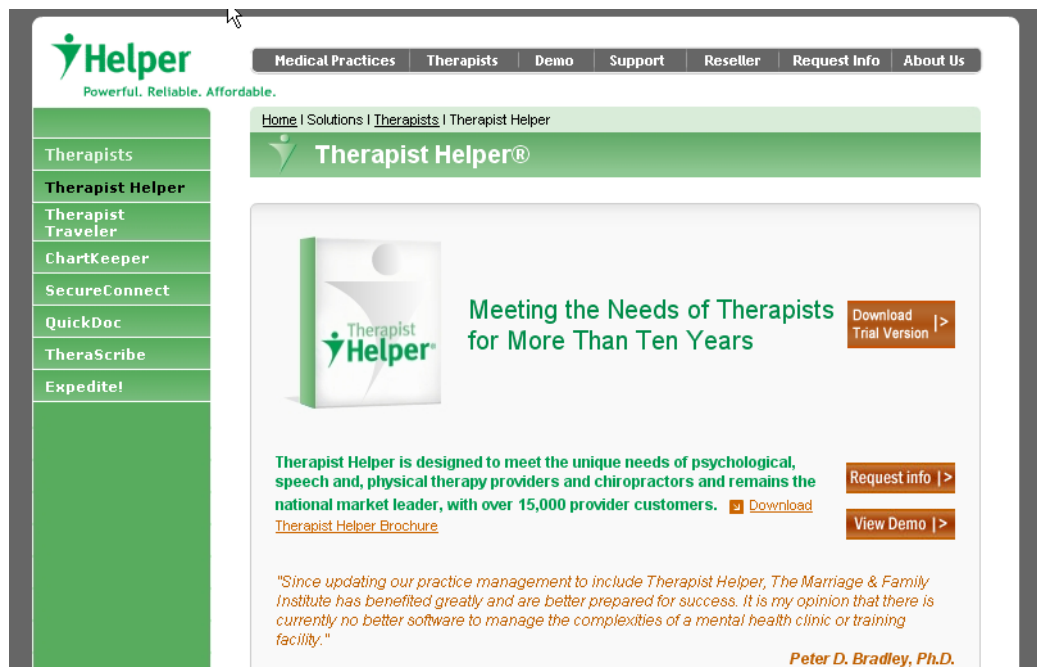
Personal Recovery DVD

Get your entire backup account delivered to you on DVD. Great for maintaining long term archives or accessing files when off-line. Up to 4.6 GB of your data per DVD. \$99.95/DVD

D. Look and Feel: The docTypes site as well as the application will strive for a friendly though professional look.

Therapist Helper: ★★★★★

This site has a professional look, although I did notice several places where spelling and punctuation were sloppy. It definitely looks like a commercial website and leans a bit more toward the "salesman" approach as opposed to having a personal feel.





ShrinkRapt: ☆☆

This site just seems tacky. They don't do a very convincing job of professional or friendly in my book. The blue line you see around the logo? Yep. The image used in the link doesn't have the border set to zero.

"Serving Therapists Since 1989" Available for Mac and Windows

WELCOME TO SHRINKRAPT

You have reached the home page for ShrinkRapt™, the best selling billing and insurance program for MENTAL HEALTH PRACTITIONERS. ShrinkRapt's primary use is to prepare client billing statements and complete the HCFA 1500 insurance claim form. In addition, ShrinkRapt can be used to keep session notes, track medications, summarize practice statistics and more. The Features button on the left provides a list of other features.

While ShrinkRapt is very powerful, it is also extremely easy to use. In fact, the program is so solid, and so easy to use, that we are able to offer free technical support for as long as you own the program! That's right, there are no per call charges or annual support contracts. We can do this because we create solid, easy to install, and easy to use software, that rarely requires technical support.

E-Mail Updates

Welcome

Order Form

Paper Supplies

Add-On Modules

Features

Testimonials

CLICK HERE

CLICK HERE TO ORDER FORMS

SHRINKRAPT ORDER OUR FREE DEMO!

BY PATIENT BILLING?



TherapySOFT: ☆☆☆

The look and feel of this site mirrors what it does best – trying to have something for everyone. Although not absolutely awful, it doesn't excel in either the professional or friendly categories.

The screenshot shows the TherapySOFT website homepage. At the top left is the logo for 'GET PHYSICAL! SOFTWARE'. To the right is the 'TherapySOFT™' logo. Below these are navigation buttons for Home, About, Contact, Support, FAQs, Download, Store, and View Cart. On the left side, there is a vertical menu with the heading 'Innovative Solutions for Business Management' and buttons for Features, Pricing, Upgrades, Networking, Requirements, Site Licenses, and Testimonials. The main content area features a photograph of a therapist assisting an elderly man in a pool. To the right of the photo is a text block describing the software's capabilities for various therapy types and its billing features. Below the photo and text is a paragraph detailing appointment scheduling features.

GET PHYSICAL! SOFTWARE

TherapySOFT™

Home About Contact Support FAQs Download Store View Cart

Innovative Solutions for Business Management

Features
Pricing
Upgrades
Networking
Requirements
Site Licenses
Testimonials

TherapySOFT™ is software for therapy offices including physical therapy, occupational therapy, speech therapy, psychotherapy, acupuncture, and all other types of rehabilitation practices. Add the optional HCFA 1500 for billing and the S.O.A.P. Note feature for treatment documentation.



The patient database which is easy to use for staff. Sign up patients for treatments with number of authorized visits and expiration date. Check-in clients at the front desk with the countdown feature's date and time stamp.

Schedule appointments for one or more therapist. Schedule by room assignment or specific therapist. Print appointments for the day. Use the Daily Reminders feature to help eliminate no-shows and last minute cancellations. Recurring appointments are easily scheduled with a few clicks of the mouse!



PBS: Psychiatrist's and Psychologist's Billing Software: ☆

This is clearly a tech guy who has no interest in design or in building a web page. His site consists of one long page with the links at the top going to anchors. Wording is not particularly friendly and in fact, is a bit techno-speaky and off-putting in places.

Blumenthal Software  

PBS: Psychiatrist's and Psychologist's Billing Software

Welcome to the home web page for Blumenthal Software, makers of PBS office billing software for psychiatrists and psychologists. PBS has helped psychiatrists and psychologists manage their practices since 1977, providing single provider and multiple provider offices with a flexible inexpensive solution to the problems of billing and financial record keeping. The current PBS program, PBSW2, collects the data needed to print insurance forms and statements to patients and provides a variety of options for printing and reporting on the practice.

Contents

- [Current Product and Prices](#)
- [What's New in PBSW2](#)
- [Purchasing](#)
- [Historical Information](#)
- [Downloads: demos, updates, etc.](#)
- [Frequently Asked Questions and Troubleshooting](#)
- [Contact Information](#)
- [Comments and Suggestions](#)
- [PBSW2 Installation Instructions](#)

Current Products and Prices

PracticeEasy: ☆☆☆

I was not able to find a website for this product. I did see a version of the software and although the people who use it love it and swear by it, the look and feel wasn't that different from the PBS screenshot above. In its favor, though, labels were clear, concise and easy to understand.



EagleSoft Solutions: ☆☆☆

Again, we definitely have a tech guy instead of a design guy here although there's at least an attempt at design on this site. The green "Click here for the PsycWriter – History Generator Program" scrolls and all in all, the site doesn't rate highly on the professional or the friendly scales.

The screenshot shows the EagleSoft Solutions website. At the top is a blue header with the company logo (an eagle with wings spread) and the text "EagleSoft Solutions" and "Your Ultimate Small Business Computer Solutions". Below the header are two buttons: "Programs" and "Activation Site". On the left side, there is a vertical navigation menu with buttons for "Home", "Client Support", "Medica Program", "Psyc Program", "Services", "Why ESC", "Links", and "Careers". The main content area features the heading "Building customized Software Solutions for your business" and a table with two columns of benefits:

Accelerate your business	Reliable and secure applications
Eliminate work redundancy	Data analysis and reporting
Reduce paperwork	Quick and secure access to all data
Enhance work efficiency	Data Privacy and confidentiality

Below the table is a green link: "Click here for the PsycWriter - History Generator Program". At the bottom of the main content area is a paragraph about EagleSoft Solutions:

EagleSoft Solutions is a small business computer solutions provider that takes IT solutions to a new level of customer care and support. Our goal is to serve as your IT department that you can count on to ensure not only the efficiency of our services but the success and the efficiency of your business.



MyClientsPlus: ★★★★★

This site does an excellent job of combining professionalism and friendliness.

The screenshot shows the homepage of MyClientsPlus. At the top is a navigation menu with links for Home, About Us, Products, Support, and Contact. Below the menu is the site's logo, "My Clients Plus", in a stylized font. The main content area is divided into several sections:

- Account Login:** A sidebar menu with links for "Take a Tour", "Get Started", "Benefits", and "FAQs".
- Welcome:** A central section featuring a photograph of a woman in a professional setting. Text to the right of the photo states: "My Clients Plus is the first practice management software designed to operate exclusively within your web browser." Below this, it says: "As an alternative to expensive and complicated software packages like Therapist Helper, our technology enables you to access your client information from any computer, anytime, anywhere." Further down, it reads: "Designed by a group of practicing Marriage and Family Therapists, My Clients Plus is ideal for client contact across a wide range of healthcare specialties. We have one simple objective -- to help you **manage** and **get paid** for client contact **faster** and **easier** than any other solution."
- ANYWHERE Access from your Cell Phone:** A section with a small image of a mobile phone. Text reads: "You have the freedom to securely access your client information from anywhere your browser-enabled cell phone or PDA has coverage. Just think of the time saving benefits of entering client activity between appointments, during your commute, while at home or any other place you have your phone. There's **no new software to buy** or load, it's all included in your basic service."
- AUTOMATIC Insurance Form Generation:** A section at the bottom of the main content area.
- NEWSLETTER SIGN-UP:** A sidebar box with the heading "Your Email Address" and an input field.
- TESTIMONIALS:** A sidebar box featuring a quote: "My Clients Plus is exactly what I've been looking for! I want to spend productive time with clients, not in front of my computer. Now I can even access my client information from my cell phone wherever I am!" attributed to "Jake Hill - Therapist".
- CHECK THIS OUT:** A sidebar box with a small image of a person's hands raised in a celebratory gesture.



MedAxis Online Practice Management System: ☆☆☆☆

This site is clearly oriented toward the medical profession. The site does an adequate job of looking professional but it lacks the personal quality docTypes will strive for.



E. Support: docTypes will offer a variety of ongoing support options. Customer service will be seen as next in importance only to the functioning of the application itself.

Therapist Helper: ☆☆

Therapist Helper offers both phone and email support. However, the hours are limited and you have to have an active maintenance contract. This is from the site:

“You can reach the Helper Technical Support Department at (781) 937-0080. Our hours of operation are Monday - Friday 9am to 5pm Eastern Standard Time. You must have an active Technical Support Maintenance contract to receive support from one of our Technical Support Representatives.”



ShrinkRapt: ☆☆

One of the marketing features ShrinkRapt uses to distinguish itself from Therapist Helper is their free support. Here's their statement:

"Free technical support is at the core of our mission statement and operating plan. The concept is this. If our software is buggy, not easy to use, or not well documented, we get lots of calls. Because good technical support staff get paid very well, lots of calls cost us a lot of money. Offering free technical support is good motivation to make sure we do it right the first time."

The grammar and punctuation aren't the best, but the logic is straightforward and does have a personal flavor to it. However, I found it interesting that they never tell you exactly what their support policy is. Do you email them? Call? What email address and/or phone number do you use? The phone number that's not toll free? And what are the hours? They lose a star just because although I like their philosophy, I'm not clear about their policy.



TherapySOFT: ☆☆☆

The free email support is a definite plus. TherapySOFT's support statement:

Support Via Email:

Email technical support is provided at no charge. Responses can be expected within 48 hours, but will often be answered within the same day. [Click Here To Contact Us Via Email](#)

Support Via Phone:

While Get Physical! Software products are easy to use, many first-time customers purchase the Starter Kit. Our trained technicians can be helpful in answering initial questions and in setting up the program for your specific business needs.

Phone Support Hours of Operation:

For technical support by phone, please call 203-622-0108 Monday through Friday, 10:00 a.m. to 5:30 p.m., Eastern Standard Time.

Starter Kit	Per Minute	100 Minute Package
Price: \$19.95	Price: \$1.75	Price: \$149.00
Add To Cart	Call 203-622-0108	Add To Cart
20 Minutes -One Per Customer	No Minimum	Best Value

PBS: Psychiatrist's and Psychologist's Billing Software: (unable to be rated)

This site doesn't specifically say how support will be handled although he does list all contact information, including his cell phone number for emergencies. Emergencies are defined as "inability to get into your database and run the program, or any kind of data corruption."

I have heard fairly negative things about how much support is actually given, however.



PracticeEasy: ☆

When you have problems with the software, this developer comes to your home or office to fix it. I don't think he charges an additional fee although he's also not always quick to respond.

EagleSoft Solutions: ☆☆☆

The site doesn't specifically address this issue, but does state the following:

"All of our services are backed with world class customer service. Our developers and tech support personnel will be on-site within 48 hours to respond to any problem or technical difficulty you might have, or to add or modify any new or existing functionality that you need to incorporate into your existing applications.

We are committed to your success, just let us know what your needs are and we will work with you to ensure your satisfaction."

MyClientsPlus: ☆☆

The only information given on support is the one sentence quoted earlier ("To reach us via email please click on the link and let us know how we can help.") Since this is a new product still in beta version, the company may come up with a more specific system for support later. At this point, though, it's difficult to gauge how much and what kind of support the company really offers.

Also, when you click on the FAQ link, you get to a page that says, "Please stay tuned as we develop this portion of the website."



MedAxis Online Practice Management System: ☆☆

This company's support statement is:

"MediPro offers 60 days of support at no additional charge with all new medical claims software purchases. Our support includes unlimited phone, fax, e-mail, and remote access support.

With our unique remote access support, we are able to connect to your computer through any internet connection. There is no software to purchase or install. Using this service allows us to view your computer screen to show you how to solve your questions instead of trying to just explain it over the phone.

MediPro provides additional telephone support options. With a medical claims software support agreement, you will be able to call our trained technical-support staff using a toll-free number. You will also have access to our support section on our web site.

A monthly, six-month or one-year support agreement may be purchased for a fee. For more information on our support programs and current support pricing, contact MediPro toll-free at 1.800.759.1321. Toll-Free, after hours, and weekend emergency support are included with all support contracts."

I'm not sure how they're doing their remote access support, but I have a hunch that would seem creepy and/or threatening to many therapist types.

F. Upgradeability: Because all docTypes apps will live online, revisions due to bugs and/or new features will automatically be added to all existing accounts at no additional fee.

Therapist Helper: ☆☆

Have to purchase upgrades.



ShrinkRapt: ☆☆

Maintenance upgrades are free but feature upgrades must be purchased.

TherapySOFT: ☆☆

Have to purchase upgrades.

PBS: Psychiatrist's and Psychologist's Billing Software: ☆☆

Have to purchase upgrades.

PracticeEasy: ☆

The developer of this software has been willing to provide debugging and some other fixes for free. However, each time something like this is needed, he has to come to your office to do the fix. I'm not sure there have been any updates since it was first built in 1998.

EagleSoft Solutions: (unable to be rated)

The site doesn't specifically address this issue, but since the products are custom built, I would imagine that updates have to be requested and that there would be an additional fee. However, an advantage would be that you could ask for and presumably receive the exact new features you wanted.

MyClientsPlus: ☆☆

This site doesn't specifically say how they will handle updates, but they do say this:

"Most practice management software packages require an initial investment of several hundred dollars, plus a maintenance contract for an additional couple of hundred dollars. Ironically, this approach often means you get fewer updates less often because of the high cost and effort required to ship software updates and



induce customers to install them. Because My Clients Plus is a web service, our operating costs are lower -- and we pass the savings on to you."

MedAxxis Online Practice Management System: (unable to be rated)

This site doesn't say how they will handle updates and bugs.



V. Conclusion and Recommendations

A. Overall Ratings

Based on the goals and objectives of the current project, overall ratings of the products in this analysis are:

Therapist Helper: ☆☆☆

ShrinkRapt: ☆☆☆

TherapySOFT: ☆☆

PBS: Psychiatrist's and Psychologist's Billing Software: ☆☆

PracticeEasy: ☆☆

EagleSoft Solutions: ☆

MyClientsPlus: ☆☆☆☆

MedAxis Online Practice Management System: ☆☆

Although Therapist Helper and ShrinkRapt each got 3 stars, they both suffer from feature bloat and an expensive price tag. For those reasons, they aren't really in the same category of products as docTypes will be. It seems that there is only one real competitor to the docTypes and that's the new MyClientsPlus application. Although it currently has 4 stars instead of 5, my guess is that some of the things it does less well will be improved over time. An additional goal of docTypes, then, will be to find ways to improve upon what MyClientsPlus is offering.

B. Recommendations

Focus heavily on customer support. Present a policy that's specific and that offers several different levels and types of support. For example, one possibility would be to include a public forum where people can post their questions. That way, customers can be encouraged to help one another, and also, responses from docTypes staff can be referenced again and again. Additionally, help documents in addition to an FAQ page can be developed and posted. It may also be helpful to provide a way to search the site



to help users find the information they need. Usability studies before launch should help determine what types of documentation to offer.

Focus on seamless, free and ongoing upgradeability. Although MyClientsPlus may have the same philosophy as docTypes, they aren't specific about it. One of the selling features of docTypes will be that upgrades will take place behind the scenes and will be seamless. If a client in Timbuktu reports a bug and we fix it, the fix will apply to all docTypes customers immediately.

Offer a lower price. When you first look at MyClientsPlus' rate of \$19.95 per month, it looks like a real savings over anything else on the market. However, I bought my version of Therapist Helper 8 or 9 years ago and even though there have been several upgrades since then, I've never needed or purchased one. I've also never purchased a service contract. At the current rates, 10 years of MyClientsPlus would amount to \$2400 – quite different from a one time fee of \$900 for Therapist Helper. One way of lowering the fee might be to offer discounts or other incentives if you sign a contract for an entire year or for referrals of other professionals.





User Definitions

Six therapists, a solo practice office manager and an individual who does the billing/accounting tasks for 15 different local therapists were interviewed concerning how they currently accomplish their office management and billing tasks. Interviews were open-ended and were intended to provide some high level data to be used in developing docTypes.

Therapists

Therapist #1

Therapist #1 (who happens to be me) has been using Therapist Helper for the past few years and has a love hate relationship with it. Her primary complaints about it are that it's difficult to use and too expensive (especially when you add on upgrades, service contracts, etc.). In fact, therapist #1 confided that she's using a fairly old version of the program because she hasn't wanted to buy upgrades, but that it's adequate for her needs.

On the plus side, Therapist #1 finds billing tasks much easier now that she has the program. In particular, she loves that she can print out HCFA's for insurance companies as well as statements for clients. She states that the program remembers where she left off on the last billing cycle and only includes sessions from that point forward. She finds this feature especially helpful. She also likes being able to print out reports – and especially the fact that she can create her own reports. She notes, however, that the custom report section is difficult to use. It's not always readily apparent what an item is and she's found that she often has to create a report and run a sample to see if the items on the report were the ones she intended. She's been unable to create most of the reports the way she would like them even after several trial and error attempts. Although unsure whether this indicates limitations in the program or whether the report creation features just aren't explained well, the net result is that this part of the program is less than adequate. Therapist #1 (who is a color and design freak) has also been frustrated that certain formatting features of reports and statements are hard-wired in. For example, the program prints out certain things in red, which clashes with the colors in Therapist #1's business stationery.

Therapist #2

Therapist #2 does both psychotherapy and massage. She uses PracticeEasy, a database program built in FileMakerPro. PracticeEasy is one of the independently developed solutions that was



reviewed in the Competitive Analysis. Therapist #2 reports that she's able to use it equally well with her massage and her psychotherapy clients. Therapist #2 says that she has tried Therapist Helper but that she found it too difficult to learn. She loves PracticeEasy because it is very intuitive. Although the programmer provided her with a manual, she's rarely referred to it, saying that she was pretty much able to begin using PracticeEasy right out of the box. She also feels that PracticeEasy is very secure – pointing out that there are 3 different login pages plus an invisible field that has to be clicked that only the user would know about. Therapist #2 also likes the various word processing/printing features that PracticeEasy has. For example, she occasionally sends out letters to her practice as a whole or to specific individuals in her practice and noted that she could create form letters along with mailing lists right in PracticeEasy. She can also choose specific things to print. For example, she says she occasionally prints out lists of her client names and phone numbers so she'll have a hard copy. She also prints out weekly deposit slips for her bank and likes that PracticeEasy remembers where the last deposit ended. Another nice feature is that on things such as statements and deposit slips, the program automatically prints out a top portion for her to submit and a copy on the bottom for her to keep for her own records. PracticeEasy also has a feature that allows Therapist #2 to enter her daily appointments. She can then print them out, transfer them to her Palm Pilot, etc.

One thing therapist #2 doesn't like about the forms in PracticeEasy is that some of them have a generic type of logo at the top that's hard-wired in. She wishes the logo either weren't there or that she could customize it to include her own logo instead. Also, since this program is actually built in FileMakerPro, any time Therapist #2 needs tweaks or updates, the programmer has to come to her office and install the new features for her. She also worries about what would happen if the programmer were no longer available for some reason.

Therapist #3

Therapist #3 confided that some pieces of being a therapist he does very well and some he does very badly. Typical practice management tasks were the things that fell in the "very badly" pile. Until recently, he's attempted to do all his own bookwork, but in the past few months, he has hired an outside person to do his billing. He's pleased with not having to do it himself but realizes it's an expensive option. Except for the billing tasks, he does almost all other practice management tasks by hand. He has all client phone numbers programmed into his cell phone and also keeps a paper backup of phone numbers. Therapist #3 has never tried a software billing program, primarily because he felt they were too complex and that he wouldn't be able to understand them. He said that he would definitely consider using a billing program if it were easy. When asked what his wish list would be for such a program, he emphatically said, "Good tech support" because he felt he



would need and want a lot of help in learning the program. A second feature he would like would be information on how to deal with various insurance companies. (Wouldn't we all!)

Therapist #4

Therapist #4 tried Therapist Helper for awhile but felt it was too expensive for her needs. She also noted that it wasn't intuitive and was difficult to learn. In addition, the trial version she was using crashed and took all of her data with it, leaving her with no way to retrieve it, even though she had been careful to maintain backups. In looking for alternatives, she found that she could do most of her practice's bookkeeping tasks with QuickBooks, which she already owned. She uses Outlook for scheduling appointments. Therapist #4 is highly computer-literate and is used to working with a large variety of software programs. The one task Therapist #4 said she felt she wasn't able to get through her QuickBooks/Outlook combo was printing out HCFAs. Currently, she's either submitting them online through the insurance companies' sites, or doing them by hand for insurance companies that don't offer online claims submissions.

When asked for her wish list of features in a therapist practice management software, she mentioned wanting a program that could print HCFAs and also, one that would allow a 30-day trial period and NOT dump your data at the end of the 30 days.

Therapist #5

Therapist #5 admits that she's not very computer savvy and that computers scare her. Despite that, however, she has learned to go to the sites of the insurance companies she works with and enter both claims and treatment reports online. She does all other HCFAs and client statements by hand, although she agrees that it would be handy to have a program that did that for her. She did express concern about having to enter all the data in the computer, but when I pointed out that she would only have to do it once for each client, that was an acceptable solution.

At one point, Therapist #5 had a practice manager who did her billing and paper work. However, for some reason that didn't work out and at this point, Therapist #5 says she really prefers doing it herself. With the exception of the two things mentioned above, Therapist #5 does all her other practice management tasks by hand.

Therapist #6

Therapist #6 had used a billing/practice management program written by a local psychiatrist. It's called PBS: Psychiatrist's and Psychologist's Billing Software and is one of the programs reviewed in



the Competitive Analysis. Although the program seems to have done most of the tasks she needed it to do, she says the things about it that she doesn't like would fill a book. In particular, she says the program was difficult to learn and expensive. Her biggest complaint, however, is that the program she purchased was DOS based and it only runs on certain operating systems. She's inquired about upgrades, but so far, has been unable to get any resolution. She's frustrated because her version of PBS has several years' worth of data that she doesn't want to lose, but in order to maintain it, she has to have an older computer that has an operating system her version of PBS can use. Currently, she's decided to hire an outside person to do her billing. However, she notes with some frustration the fairly large expense this entails and also, the redundancy of effort. For example, Therapist #6 enters all client data in PBS, then hand-writes the specific information she needs to give her billing person, then the billing person enters everything in Therapist Helper (the program the billing person uses) and prints out the necessary forms. Therapist #6 uses a Palm Pilot for scheduling.

Independent Billing Contractor (Offsite)

The billing contractor I interviewed is the one used by both Therapist #3 and Therapist #6. The contractor said that she currently manages the billing for about 15 therapists here in Atlanta. Her rates vary, but typically, the monthly fee for a small to mid-sized practice runs around \$250 - \$300. In some cases, she charges more (the figure I heard was \$500 a month) for the first few months to get a therapist up and running. She uses Therapist Helper and feels it does all of the things she needs it to do and does them well. She admits that it's expensive, but given that she can use the same copy of the program for all the therapists she administers, she feels it is well worth it. I asked her what she would think of a software that was web-based. Her response was, "It would scare the hell out of me!" However she also didn't strike me as someone who felt very comfortable with the Internet period. For example, she said she rarely uses email for anything and prefers either talking on the phone or meeting with someone directly.

Onsite Practice Manager

Finally, I interviewed one onsite solo practice manager for a chiropractor's office. When I asked if they used any billing software, he laughed and said, "We're not very high tech around here!" At first, he said that he does everything by hand and that it's really not that difficult since their practice doesn't take insurance. Later, however, he remembered that they do have a few patients on Medicare and that he has a program called Easy HCFA for those patients. When I asked what his thoughts were about an online billing system, he said that unless they start taking insurance, it probably wouldn't be worth it to them. Currently, their office doesn't have Internet



access, so that would be an additional expense that they don't currently have. He also had concerns about safety of data on the Internet. Additionally, by doing everything by hand, he noted that if he's not there for some reason, the doctor can do her own bookwork for that day. He felt that if he used a software package, that it would be harder for her to pinch hit for him, since she wouldn't be using it often enough to remember how it worked.

General User Findings and Summary

User Groups

After conducting the interviews, it seems that there are three broad categories of potential users: therapists, office managers and independent billing agencies or individuals. It is tempting to want to subdivide the therapist group – possibly based on size of practice, degree of computer literacy, whether they file insurance, etc. However, when I consider how the tasks might vary among these groups, the only one that might make much of a difference is insurance. My guess is that therapists who don't file insurance would probably not want a practice management/billing software, which makes assigning user tasks to this group a moot point. Therefore, for the purposes of this study, there will be the three user groups mentioned above.

Big Picture Issues

I gleaned four general “big picture” points from the interviews – two of which I had expected and two that hadn't occurred to me. Probably the most important thing the interviews revealed was the degree to which people in the helping professions are concerned about Internet safety. It hadn't occurred to me to anticipate this. When I explained that the data would be encrypted similar to what banks and financial institutions do, some interviewees relaxed a bit but others didn't. Interestingly, I got the impression that many therapists may be more concerned about the responsibility of protecting their clients than they are about protecting themselves. When talking about their concerns about having client data on the Internet, they would gesture away from themselves and use phrases like “out THERE”, whereas when they were talking of having the data on their own computers, they would say “right here” and make hugging gestures, similar to a mother putting her arms around a child.

Interestingly however, some of the people who expressed concerns didn't seem to have realized that their clients' data was already on the Web by virtue of the fact that the clients were using insurance. Nor did they seem to have an issue with the fact that they, as therapists, gave client data to unknown individuals at insurance companies on a regular basis – either via the Internet, US



mail and/or the phone. Given those discrepancies in logic, my sense is that part of the resistance I encountered mostly had to do with the fact that I was presenting them with something new that they didn't totally understand. It hasn't been that many years since therapists were reluctant to use insurance with clients because of privacy issues. Similarly, therapists felt that it wasn't safe to use computers to store client information. Today, however, even though most therapists would probably still prefer not to use insurance companies, most do. Also, those interviewees who weren't using their computers to store client data stated reasons other than concerns about confidentiality. However, no matter what the explanations are, clearly docTypes needs to give the security issue top priority – both in terms of making sure the site is as secure as possible and also in communicating that sense of safety to potential users. HIPPA (Health Insurance Portability and Accountability Act) has fairly strict guidelines for ensuring confidentiality of client health information on the Web. These will be followed for docTypes.

The two big picture findings I had anticipated were that therapists as a whole do not want to invest a lot of money in billing/practice management software. If my sample was representative, some therapists will spend much more on someone to do their billing for them than they will on software they can use themselves. For example, both of the therapists who are currently paying upwards of \$3000 a year for an individual to do their billing felt that a one-time fee of \$900 for Therapist Helper was too high. However, I think this can be at least partially explained by the second anticipated finding, namely, that if a therapist is going to use billing software, they want it to be user friendly. I think if they could find a user friendly, fairly inexpensive software that offered good technical support, some therapists who are currently using outside billing individuals or agencies might choose to do their own billing.

The final unanticipated finding was one I ran across myself when testing MyClientsPlus – the online system I was able to test drive. Since I'm used to using desktop software for my billing, when I tried similar tasks in MyClientsPlus, I found myself feeling annoyed at having to wait for pages to load. If I hadn't had the other program as a comparison, I don't think that would have occurred to me. However, given that therapists have quite a few tasks to do when they see a client and that they typically have very little time between clients to do those tasks, load time will be another important consideration for docTypes.

Specific Tasks

With the exception of being able to print HCFA forms, most of the people I interviewed didn't have a strong sense of what specific tasks they would want a practice management software to include. My sense is that this was mostly just because they hadn't thought about it and/or had



never used a similar program so they didn't have a sense of what the possibilities might be. This may partly be a factor of the overall age of the sample population. Although some respondents were in their 30s or 40s, others were in their 60s or 70s and several were retired. Those who were retired mostly left the field before the advent of insurance, which means they were used to doing their practice management tasks by hand. A younger sample might have yielded different results.

Despite that, however, there are several tasks that did emerge as being the most common tasks a therapist does and might want in a practice management application. These will be discussed in the Preliminary Application Feature List.





Preliminary Application Feature List

So far, it's been established that docTypes should offer the following general features:

- Secure data
- Relatively inexpensive
- User-friendly
- Good support
- Relatively fast page load times

The specific tasks therapists might want to do have been divided into "should have" and "would be nice".

Should Have

- Client information
- Session information
- Billing information
- Insurance information
- Therapist information
- Print HCFA's
- Print statements
- Reports

Would be Nice

- Scheduler/calendar
- Print deposit slips
- Print mailing labels
- Custom letters
- Search

Discussion of Each Task

Each of the specific tasks above will now be discussed separately.



Client Information

The client information page will be a form for entering standard data that a therapist might have on their intake forms. Specifically, the initial section, labeled “Personal Information”, will have fields for date, first name, middle initial, last name, street address, city, state, zip, preferred email, home phone, work phone, cell/other phone, SS or other ID number, gender, birthday, occupation, employer’s name, emergency contact name, emergency contact phone and emergency contact relationship. Contact information such as phone numbers and email addresses will be set apart in a box with a different colored background for ease of finding.

This will be followed by a “Family Information” section, which will include the following: marital status, spouse/partner’s name, spouse/partner’s phone number, spouse/partner’s occupation, children (list names and ages), mother, father and siblings (list names, ages and occupations for each). For children and siblings, the user will be prompted to see whether they have an item to enter and after each entry, will be prompted with “Add another?” Fields such as these will remain hidden unless the user specifically requests them. This will prevent the forms from being overly long with fields the user doesn’t need.

An “Insurance” section will follow, which will include the following information for both primary and secondary insurance companies: name of insurance company, address for claims submission, ID number, group ID, subscriber’s name and address (if different from client).

One feature docTypes may offer in the future is allowing therapists to put their intake file on the Web so that new referrals can fill out their intake forms before an initial appointment. Once the therapist approves it, the information can go straight into the database, saving the therapist precious data entry time.

Session Information

The session information page will be where the therapist enters the necessary administrative (i.e., non-clinical) type of information each time a client is seen. Information gathered from this page will be used when printing out HCFAs, statements and reports and will include such things as date, fee, diagnosis, amount paid, place of service, CPT code, etc. (CPT codes are the service-related codes used by all health care professionals. For example, common CPT codes used by therapists are 90806 (the standard 50-minute session), 90808 (an extended session), 90847 (family psychotherapy), etc.)



Many of the fields on this page will be pre-populated from data entered elsewhere. For example, demographic data about the client will be pre-populated from information entered on the Client Information page; data about the insurance company will be pre-populated from information entered on the Insurance Information page, etc.

DocTypes will have several built-in lists. For example, a user will be able to select a CPT code from a list of commonly used codes as opposed to having to remember them. This should go a long way in making the software user-friendly and also in reducing errors on HCFA's that could result in claims being returned unpaid. Other lists to be included are diagnoses, medications and place of service codes. Users will also have the option of adding codes to any of these built-in lists.

Billing Information

The billing information page will be used to enter payments from a client or an insurance company. Billing information sounds straightforward but may end up being the most difficult task for which to devise a working model. For example, let's say insurance company "A" says they pay 80% for the first 10 sessions, then 100% after that up to a total of 20 sessions per year. The client is to pay the remaining amount. This sounds straightforward. However, the 80% is based on what's called their "Usual & Customary Rate" (UCR) for that particular service. Each insurance company sets their own UCRs and there's a different UCR for each CPT code (e.g., an individual therapy appointment might have a UCR of \$70 from our Company A, whereas the UCR for a group session might only be \$32 and they might not pay for family therapy at all). It's difficult, if not impossible to get this information from insurance companies ahead of time, which means that therapists do a lot of "Let's submit this claim and see what happens, then we'll make whatever adjustments we need at that point."

To complicate matters, the client may also have a secondary insurance company, who may or may not pay anything on the remaining amount, depending on whether their UCR for the service rendered is more or less than that of the primary insurance company. You can't file the secondary insurance until you receive the EOB (Explanation of Benefits) from the first company, so it's not uncommon to be unable to reconcile a client's balance for several months. Additionally, clients sometimes change insurance policies one or more times during the time they're in treatment with you, which means you have to start all over again. Also, most insurance policies have a deductible that must be met at the beginning



of each fiscal or calendar year. If the client is seeing another provider (e.g., a psychiatrist to manage their medications), it's a toss up as to whether your bill or the psychiatrist's will hit the insurance company first which means there's often no way to know ahead of time how much to allow for the client's deductible.

Finally, clients are inconsistent in the amount they pay. Not only do they do things like forget their checkbook on occasion, but also, once the insurance dust has settled, if the client owes a balance, they may want to pay it off incrementally instead of all at once.

Insurance Information

This will be a place to enter information about each insurance company you work with. Some companies will require several entries, for example, BlueCross PPO is different from BlueCross HMO, which is different from BlueCross POS. To complicate things, it's not uncommon for clients to have BlueCross of Alabama or BlueCross from some other state. Luckily, though, this form will not need a large number of fields. Mostly, it will need a place for the name, mailing address, phone and fax of the insurance company, with perhaps also information on how their authorizations (if required) are done. Some insurance companies require a specific provider ID, so a field for that information will be included as well. In addition, since some insurance companies now offer claim submission online via their website, this form will also have a place for the insurance company's URL. Eventually, it's hoped that docTypes will be able to automatically connect to an insurance company's gateway and submit a claim straight from docTypes to the insurance company, with no intermediary step from the clinician. This is definitely the direction the market is headed.

Therapist Information

A single therapist practice where no insurance is involved might be able to leave this table blank. However, it would be necessary data for a multi-therapist practice or for a person who's doing the billing for more than one therapist. It would primarily include demographic information on the therapist, plus their insurance and tax IDs, and bank information if the therapist wanted to be able to print deposit slips from the application. It will also be possible to upload a copy of the therapist's logo, which can then be used for statements and other letters, forms or reports.



Print HCFA's

Aside from the general issues such as data security, user-friendliness and cost, printing HCFA's was the most requested task among the therapists I interviewed. I'm thinking there may be two ways to approach this. One is to scan a HCFA and then use a class such as `fpdf.php` to input data from the database to the correct places on the form. Another option would be to create a printable document with the correct formatting and require the therapist to insert a HCFA form into their printer. The former would be more foolproof in terms of making sure everything lines up. However, some insurance companies (most notably Medicare) require all HCFA's to be originals and I'm not sure if a scanned version would qualify. Also, original HCFA's have information on both front and back so that might affect the decision as well.

In either case, some of the boxes on a HCFA are required and others are not. All required fields will be filled in by the application. Also, again, different insurance companies have different requirements for some of the fields. For example, Medicare will kick back a form that includes the decimal point in a diagnostic code (e.g., 296.33). Most other insurance companies will kick back the claim if the decimal point is NOT there. Known discrepancies of this sort may be able to be handled in the Insurance Information database. However, it will also be important to allow the user to edit fields to correct these kinds of issues since insurance companies change their requirements fairly frequently. It's an impossible task to know and stay on top of the specific ins and outs of every insurance company in the country.

As mentioned above, an eventual goal of `docTypes` will be to link directly to an insurance company's gateway and submit claims straight from `docTypes` to the insurance company. This will eliminate the intermediate step of filling out a HCFA.

Print Statements

Users will be able to choose which items to include on their statements. For example, a statement that a client needed to send to their insurance company would need a place for their diagnosis. However, if they needed a statement to turn into their employer for Flexible Benefits, most clients would prefer that the diagnosis be omitted. The therapist's logo (if they have one) will be printed at the top of the statement.



Reports

Users will be given a list of items in the database from which to create their own reports, similar to how statements will be handled.

Other (the 'would be nice' items)


Some of the items in the "would be nice" list, specifically, printing deposit slips and custom letters should be fairly easy to implement. For example, banking information on each therapist can be gathered on the Therapist Information form; custom letters can be blank except for putting the therapist's logo at the top of the page. For custom letters, as well as things such as statements and reports, it would be nice to build in some simple word processing type formatting tools. If nothing else, users could be offered several hard-coded styles from which to choose. I'm also going to need to find out what options exist for allowing users to print mailing labels since different types of labels require different formatting. One possible solution would be to specify a handful of specific mailing labels that can be used and allow the user to choose among those.

The two remaining "would be nice" features are a calendar/scheduler and a search feature. For the search, I'm not sure if that can be done with SQL queries or whether I need to investigate 3rd party options. At this point, I don't know where to even start in thinking about the calendar/scheduler. If we do add one, it would be nice if it had the ability to synchronize with Outlook and/or handheld types of devices - which I also know nothing about. Clearly there's more research to be done on most of the items on the "would be nice" list before determining if they're feasible.



Preliminary User Task Matrix

User task matrices are a way to represent the various tasks that each user group is expected to want to accomplish with the application. Possible tasks are listed across the top and user groups, arranged by primary and secondary, are listed along the side. In the current study, therapists will be the only primary user group and office managers and billing agencies or individuals will be the secondary user group.

			TASKS												
			Enter client info	Enter session info	Enter billing info	Enter insurance info	Enter therapist info	Print HCFAs	Print statements	Create reports	Schedule clients	Print deposit slips	Print mailing labels	Create custom letters	Search
USERS	Primary	Therapists	x	x	x	x	x	x	x	x	x	x	x	x	x
	Secondary	Office Managers	x	x	x	x	x	x	x	x	x	x	x	x	x
		Billing Agencies/ Individuals			x	x	x	x	x	x			x		x

As it turns out, the groups of therapists and office managers completely overlap in tasks. If at a later point more clinically oriented tasks were added (such as writing process notes, writing and submitting treatment updates, etc.), we would see more differentiation between those two groups.





Survey

The purpose of the survey was to gather more refined data based on the knowledge gained from the open-ended interviews. Since the main issue that arose from the interviews was a concern about safety, many of the questions for the survey were slanted in this direction. An attempt was made to get permission to email the survey to large groups of therapists. However, this did not pan out, so the results below were obtained by sending emails to colleagues asking them if they would be willing to take the survey. For this reason, the sample is biased in that most respondents were among the older generations of therapists – probably between ages 45 and 70. It's important to note that for this reason, these findings might not apply to younger therapists.

The survey was built at <http://info.zoomerang.com/>. What follows are screenshots of the actual survey results:



Results



creative solutions for therapist & doc types

Report created on: May 27 2006 1:57PM

The results of your survey are displayed below. If your survey includes text responses, click the "View" button to read individual results. To exclude a particular response, click the Included Responses button. You can then view the set of individual responses that are currently included and select those you wish to exclude. Results below contain only Included responses

EXCLUDE BLANK RESPONSES

Launch Date	May 15 2006 1:41PM
Modified Date	May 15 2006 1:46PM
Close Date	
Email Invites	0
Visits	24
Partials	1
Completes	19



PART A

This section has 8 questions that ask how you feel about computers and the Internet. Please choose the best response for each question.

1. Which statement best describes your feelings about the Internet :		Number of Responses	Response Ratio
I never or almost never use the Internet.		0	0%
I'm not wild about the Internet but I do use it for specific tasks.		1	5%
I'm somewhere between the second and fourth options.		10	53%
I'm an Internet junkie.		8	42%
Total		19	100%

2. Which statement best describes your feelings about computers :		Number of Responses	Response Ratio
I never or almost never use computers.		0	0%
I'm not wild about computers but I do use them for specific tasks.		2	11%
I'm somewhere between the second and fourth options.		12	63%
I'm a computer nerd through and through.		5	26%
Total		19	100%

3. Have you ever purchased anything online that required you to enter credit card information?		Number of Responses	Response Ratio
Yes		19	100%
No		0	0%
Total		19	100%



4. Whether or not you answered yes, how comfortable are you with the idea of online credit card purchases?		Number of Responses	Response Ratio
Not at all		0	0%
20%		1	6%
40%		2	11%
60%		2	11%
80%		6	33%
90 - 100%		7	39%
Total		18	100%

5. Have you (or the person or agency who does your billing) ever used an insurance company's site or another type of site to submit online claims for your clients?		Number of Responses	Response Ratio
Yes		9	47%
No		9	47%
Don't know		1	5%
Total		19	100%

6. Whether or not you answered yes, how comfortable are you with the idea of submitting client insurance claims online?		Number of Responses	Response Ratio
Not at all		4	21%
20%		2	11%
40%		1	5%
60%		1	5%
80%		5	26%
90 - 100%		6	32%
Total		19	100%

7. Have you (or the person or agency who does your billing) ever used an insurance company's site or another type of site to authorize sessions for your clients?		Number of Responses	Response Ratio
Yes		9	47%
No		9	47%
Don't know		1	5%
Total		19	100%



8. Whether or not you answered yes, how comfortable are you with the idea of authorizing sessions for clients online?	Number of Responses	Response Ratio
Not at all	2	11%
20%	1	5%
40%	3	16%
60%	2	11%
80%	5	26%
90 - 100%	6	32%
Total	19	100%

This is the end of Part A. Please click "Submit" to proceed to Part B.

PART B

This is the final section. It has between 8 and 20 questions that attempt to gather information about how you manage common therapist tasks such as scheduling, billing, etc.

9. How do you handle scheduling?	Number of Responses	Response Ratio
I hire someone to do this for me (or my practice hires someone, etc.)	1	5%
I do this myself using software and/or a paper/pencil method.	16	84%
I do some of this myself and hire someone to do the rest.	2	11%
Total	19	100%

10. Which of the following best describes the method you use to do your scheduling? (Check all that apply.)	Number of Responses	Response Ratio
A large scale medical billing software such as AdvancedMD, MediPro or WebDoctor	0	0%
Commercial software specifically designed for therapists such as Therapist Helper or ShrinkRapt	1	6%
Other commercial software such as Word, Works, Excel, Access, Outlook, iCal, QuickBooks, FileMakerPro, etc.	4	22%
Software designed by an independent developer	0	0%
A Palm Pilot or similar device	4	22%
A paper/pencil method	10	56%
Other	0	0%



11. If "Other" was one of your answers, please explain:

[VIEW](#) 0 Responses

12. How do you handle the task of billing clients?	Number of Responses	Response Ratio
I hire someone to do this for me (or my practice hires someone, etc.)	6	32%
I do this myself using software and/or a paper/pencil method.	8	42%
I do some of this myself and hire someone to do the rest.	0	0%
I don't bill clients (e.g., I bring it up in sessions, call them, etc.)	5	26%
Total	19	100%

13. Which of the following best describes the method(s) you use to bill clients? (Check all that apply.)	Number of Responses	Response Ratio
A large scale medical billing software such as AdvancedMD, MediPro or WebDoctor	0	0%
Commercial software specifically designed for therapists such as Therapist Helper or ShrinkRapt	4	50%
Other commercial software such as Access, QuickBooks, FileMakerPro, Excel, Word, Works, etc.	1	13%
Software designed by an independent developer	1	13%
A paper/pencil method	2	25%
Other	0	0%

14. If "Other" was one of your answers, please explain:

[VIEW](#) 0 Responses



15. How do you handle the task of filling in HCFA forms and/or billing insurance companies?		Number of Responses	Response Ratio
I hire someone to do this for me.		5	26%
I do this myself using software and/or a paper/pencil method.		7	37%
I do some of this myself and hire someone to do the rest.		0	0%
I don't bill insurance companies (or I give my clients a statement so they can file their own insurance).		7	37%
Total		19	100%

16. Which of the following best describes the method(s) you use to fill in HCFAs and bill insurance companies? (Check all that apply.)		Number of Responses	Response Ratio
A large scale medical billing software such as AdvancedMD, MediPro or WebDoctor		0	0%
Commercial software specifically designed for therapists such as Therapist Helper or ShrinkRapt		3	43%
Other commercial software such as Access, QuickBooks, FileMakerPro, Excel, Word, Works, etc.		1	14%
I file online using the insurance company's site or another online gateway		1	14%
Software designed by an independent developer		1	14%
A paper/pencil method		2	29%
Other		0	0%

17. If "Other" was one of your answers, please explain:

[View](#) 0 Responses

18. How do you keep track of session information (e.g., the date you saw someone, what service you provided (individual therapy, couple's therapy, etc.), how much the client paid, etc.)		Number of Responses	Response Ratio
I hire someone to do this for me.		0	0%
I do this myself using software and/or a paper/pencil method.		18	95%
I do some of this myself and hire someone to do the rest.		1	5%
Total		19	100%



19. Which of the following best describes how you keep track of session information ? (Check all that apply.)		Number of Responses	Response Ratio
A large scale medical billing software such as AdvancedMD, MediPro or WebDoctor		1	5%
Commercial software specifically designed for therapists such as Therapist Helper or ShrinkRapt		7	37%
Other commercial software such as Access, QuickBooks, FileMakerPro, Excel, Word, Works, etc.		1	5%
Software designed by an independent developer		0	0%
A paper/pencil method		13	68%
Other		0	0%

20. If "Other" was one of your answers, please explain:

[VIEW](#) 0 Responses

21. How do you handle report or totaling types of tasks such as finding out how much income you had in a given month or year, how many times you saw a certain client in a given period of time, etc.		Number of Responses	Response Ratio
I hire someone to do this for me.		5	26%
I do this myself using software and/or a paper/pencil method.		12	63%
I do some of this myself and hire someone to do the rest.		2	11%
Total		19	100%

22. Which of the following best describes how you do totaling types of tasks? (Check all that apply.)		Number of Responses	Response Ratio
A large scale medical billing software such as AdvancedMD, MediPro or WebDoctor		0	0%
Commercial software specifically designed for therapists such as Therapist Helper or ShrinkRapt		4	29%
Other commercial software such as Access, QuickBooks, FileMakerPro, Excel, Word, Works, etc.		3	21%
Software designed by an independent developer		3	21%
A paper/pencil method		6	43%
Other		0	0%



23. If "Other" was one of your answers, please explain:

[VIEW](#) 0 Responses

24. How do you write a letter to or on behalf of a client?		Number of Responses	Response Ratio
I hire someone to do this for me.		0	0%
I do this myself using software and/or a paper/pencil method.		16	84%
I do some of this myself and hire someone to do the rest.		3	16%
Total		19	100%











25. Which of the following best describes how you write a letter to or on behalf of a client? (Choose all that apply.)		Number of Responses	Response Ratio
A large scale medical billing software such as AdvancedMD, MediPro or WebDoctor		0	0%
Commercial software specifically designed for therapists such as Therapist Helper or ShrinkRapt		0	0%
Other commercial software such as Access, QuickBooks, FileMakerPro, Excel, Word, Works, etc.		13	68%
Software designed by an independent developer		1	5%
A paper/pencil method		4	21%
Other		1	5%
Total		19	100%



26. If "Other" was one of your answers, please explain:

[VIEW](#) 2 Responses

27. If you could find an inexpensive, easy-to-use software to help you manage your practice and billing tasks, what features would you want it to have? (Please check all that apply and list any additional ideas you have in the comments box.)

		Number of Responses	Response Ratio
Record and maintain demographic data on clients		15	88%
Record and maintain session information (date seen, service provided, etc.)		16	94%
Print statements		15	88%
Print HCFA or other forms for insurance companies		14	82%
Create and print customized reports (totals, client names and phone numbers, etc.)		13	76%
Search your client database (e.g., find all records for a specific client, find all clients you saw in a given time frame, find all clients with an outstanding balance, etc.)		14	82%
Allow me to keep track of my tax-deductible expenses		6	35%
Write case notes		9	53%
Print deposit slips		5	29%
Print mailing labels for all clients or any number of clients you select		12	71%

28. Additional comments or ideas:

[VIEW](#) 1 Responses



Summary of Findings

Part A of the survey was designed to gather information about how comfortable therapists are with computers and the Internet in general, and then specifically, how comfortable they are with the idea of transmitting sensitive client information over the Internet. The results were encouraging, portraying more positive feelings than I had expected after the interviews. Here are the highlights:

- ☑ Therapists do enjoy computers and the Internet, with a whopping 95% reporting at least a somewhat favorable opinion of the Internet and 42% of the sample claiming to be “Internet junkies”. These findings may be biased in that it is likely that therapists who were not comfortable with the Internet would not have agreed to take the survey.
- ☑ All therapists polled had made at least one online purchase and 72% report being at least 80% comfortable with online purchases.

A surprising finding to me was that 94% of those therapists polled had submitted online claims and authorization requests for their clients. The remaining 6% was comprised of only one respondent who reported not knowing whether their billing company may have submitted claims and authorization requests online. However, despite the high number of therapists who are using the Internet with clients, they are not all that secure with the notion. Only 58% of the respondents report being at least 80% comfortable with these kinds of transactions.

Part B gathered information on how therapists currently accomplish various common tasks and produced the following results:

- ☑ Scheduling: 95% of the respondents do their own scheduling, with most (55%) using paper/pencil methods. Of the remaining respondents, 22% used some type of Palm Pilot and 22% used some kind of commercial software such as Outlook or iCal.
- ☑ Billing: 42% reported doing their own billing and 26% said they don't bill clients. Of those who do bill, 50% are currently using software designed specifically for therapists and 25% are using paper/pencil methods.
- ☑ HCFA Forms: Only 37% of the therapists polled do their own HCFA forms and 29% of those are using paper/pencil methods. Another 37% of the respondents don't file insurance so avoid the HCFA issue altogether. 43% reported that they (or their billing company) use software designed for therapists to fill out HCFA forms.



- ☑ Session Information: All of the respondents keep track of some or all of the session data on their clients, with 95% of them saying they do all of this task. 68% use a paper/pencil method and 37% use a software for therapists.
- ☑ Totaling Tasks: 74% of the therapists do at least some of their totaling tasks, with 43% using a paper/pencil method to do so. 29% use a therapist software.
- ☑ Word Processing: 84% reported writing all their own letters and most (68%) use a commercial software such as Word.

The final question on the survey was designed to see what features therapists might want in an application. Most features were rated highly with the breakdown as follows:

- ☑ Record and maintain demographic data on clients: 88%
- ☑ Record and maintain session information (date seen, service provided, etc.): 94%
- ☑ Print statements: 88%
- ☑ Print HCFA or other forms for insurance companies: 82%
- ☑ Create and print customized reports (totals, client names and phone numbers, etc.): 76%
- ☑ Search your client database (e.g., find all records for a specific client, find all clients you saw in a given time frame, find all clients with an outstanding balance, etc.): 82%
- ☑ Allow me to keep track of my tax-deductible expenses: 35%
- ☑ Write case notes: 53%
- ☑ Print deposit slips: 29%
- ☑ Print mailing labels for all clients or any number of clients you select: 71%



Logo and Style Guide

My work on this project began in March, 2006 and is ongoing at this writing – September, 2007. During that time, ideas for the logo and style guide has undergone numerous iterations. At the time of the presentation for Senior Project I on December 5th, the application was nameless, which also meant that there was no logo. As a result, the presentation was titled, “Name This App!” and hand-outs were distributed which asked attendees to brainstorm ideas for the name of the application. The response was wonderful and many excellent ideas resulted. The list below is only a partial list of suggested names in no particular order:

- Client Confidential
- DocBook
- OfficeRx
- DocType
- Client Tracker
- CAT (Client Accounts Tracker)
- PRO (Provider Reports & Organizer)
- Practice Makes Perfect
- Perfect Practice
- Practice Manager
- MyPractice
- PracticePro
- iPractice
- Filez
- EzClient
- JumpStart
- Peace of Mind
- Organ-ize
- BrainBOT
- Hemispheres
- ClientSuite

The one that caught my eye was DocType, because I had already considered having a tagline for Shrink Art that says, “Creative solutions for therapist and doc types”. Unfortunately, there’s already a doctype.com, a doctypes.com and a doctype.org. However, I did find (and purchase) doctypesonline.com, which also works even though it’s a bit more unwieldy. It does have the advantage of being descriptive of the whole process of therapists moving to the Web. I could also

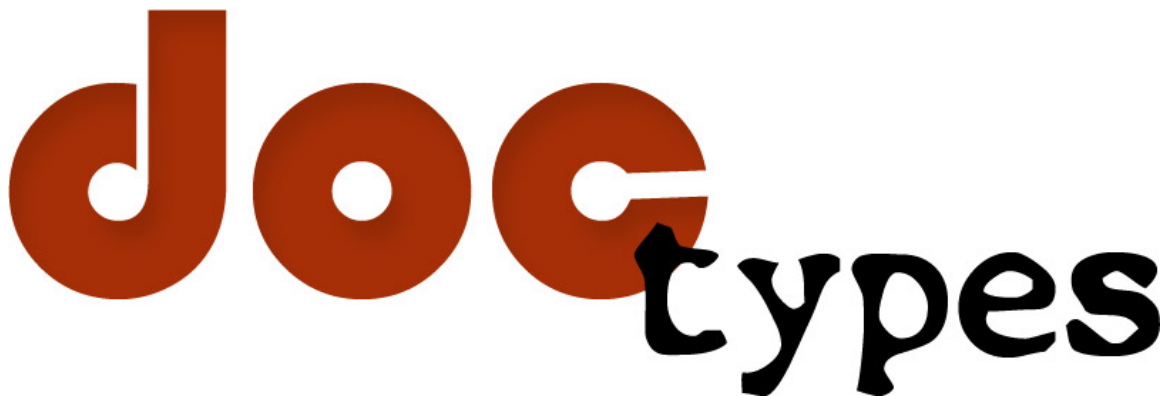


stick with just DocTypes and market it as ShrinkArt's DocTypes and have the URL be shrink-art.com/doctypes.

The name docTypes can mean three different things: the "types of doctors" meaning in Shrink Art's tag line ("Creative solutions for therapist and doc types"), the abbreviation for Document Type Declaration, and the idea of doctors "typing" their own client data and reports. Once the name was chosen, the logo fell into place. The word "doc" uses a font titled Bauhaus 93 with an inner shadow. This is the same font and stylistic treatment as is used for the logo of the parent company, Shrink Art:



It was decided to use a typewriter looking font for the word "types" for obvious reasons. The docTypes logo appears below:





Design Concept Note

Introduction



There were several design goals for docTypes:

1. To be friendly, yet professional
2. To help decrease fears about having client data on the Web
3. To be user-friendly
4. To be both attractive and easy on the eye since it could conceivably be used for long stretches of time.

Since the name as well as the logo is somewhat casual, the goal for the rest of the design will be to capture a more professional look. In addition, it was felt that if the application resembled the look of desktop applications more than a traditional web page, that users might feel a little more secure with it. For this reason, the design of table data components was meant to match what users might be used to seeing in accounting programs like Quicken or when they do their online banking. Although each page will have a slightly different layout and look depending on content, many elements – including navigation and overall layout – will stay the same. This should help users feel more at home in a short period of time.





Color Palettes

The logo has the most striking colors on the site:







Sample	Hex Code	Description	Print
	#A62F07	"doc"	PANTONE® Solid Coated 1805 C
	#000000	"types"	PANTONE® Process Black C

In addition, the site has three main background colors: one for the page background and one each for the main and the nested sets of tabs. Text on blue or white backgrounds will be black or dark gray. Text for tables and on cream or yellow colored backgrounds will be as shown below.



Sample	Hex Code	Description	Print
	#EDDFBF	Background	PANTONE® Process Coated DS 19-9 C
	#DBDBDB	Main label background	PANTONE® Process Coated DS 218-9 C
	#FFF9EB	Nested tabset background	PANTONE® Process Coated DS 22-9 C
	#663300	Font color	PANTONE® Process Coated DS 42-1 C

In addition, table data rows will be given an alternating shaded and unshaded pattern (zebra striping), making it easier to read across a long row. Also, columns with like content will be color-coded, helping the eye group similar content. An example of this vertical grouping would be all columns having to do with payments. The following colors will be used for these various table shading combinations:

Sample	Hex Code	Table Column Color
	#D4D6D7	Blue shaded
	#F1F6F8	Blue unshaded
	#E3D9C2	Tan shaded
	#F3E9D1	Tan unshaded
	#D6D8C5	Green shaded
	#F7FEF0	Green unshaded



Font Selection

The body type fonts used in the style sheet are Verdana, Arial, Geneva, Helvetica. Two fonts are used in the logo. “doc” is Bauhaus93; “types” is Chunk Type. An inner shadow is used on “doc” to give it a slightly concave look.

Layout

An effective layout is essential for guiding the eye, helping the user understand and assimilate the content of the page and also providing a pleasing effect. Concepts such as proximity, contrast, alignment and repetition are helpful toward meeting these goals.

Proximity

The tabs across the top are positioned near one another and are on one line causing our eye to group them together. We also tend to group the nested tabs for the same reason. Likewise, tools always appear either on a single line at the top or on table rows. An effort is made to keep placement of similar tools standardized and also to group tools by similarity. For example, all tools pertaining to sessions might be presented first, then all tools pertaining to payments, etc.

Contrast

The red and black in the logo epitomizes contrast and will hopefully help with branding. Additionally, contrasting colors of the two tab content areas (main and nested) help distinguish them from one another and also group content items. Colors for the two areas were chosen to be different enough to provide contrast and yet similar enough so as not to be jarring. The same principles were used in choosing other colors for the site, such as the shading used in the tables. Touches of the same red used for the logo (#a62f07) will be used occasionally for emphasis (e.g., for totals on tables and for error messages).

Alignment

Each of the tab areas is centered on the page and labels are centered in each of the tabs. Body text is flush left, rag right for optimal readability.



Repetition

The overall layout of each page is the same throughout the site which should make it easy for users to find what they need. Site colors and font choices also remain constant.



Design Comp

The comp shown below is the original comp that was designed for the site in May, 2006. From that date until now, I have gone through several working prototypes of the site. At this point, then, developing a new design comp that's more reflective of the final product seems unnecessary. Instead, it seems more important to present the original comp for historical completeness and as a way to discuss changes that have occurred over the past year and a half.

There are some points to be made about the original comp. First, given that the eventual name that was chosen for the application is docTypes, it's interesting to see that this original comp has the tagline "creative solutions for therapists and doc types". Also of note is the fact that all of the page elements in this original comp still appear in the current prototype; they've just been rearranged or in some cases, presented in a different form.

Shrink Art
creative solutions for therapist & doc types

Search

CLIENTS | SCHEDULE | REPORTS | LIBRARIES | HELP

Demographics

First Name: Jane MI: Last Name: Doe

Street Address: 123 Anystreet

City: Greentown State: GA Zip: 12245

Sessions	Payments	Adjustments	Other	
4/20/2006	90806	Individual Psychotherapy, 45-50 min	\$100	\$100

Select Client
Jane Doe
Add New Client
Delete Client

Page specific instructions will go here.



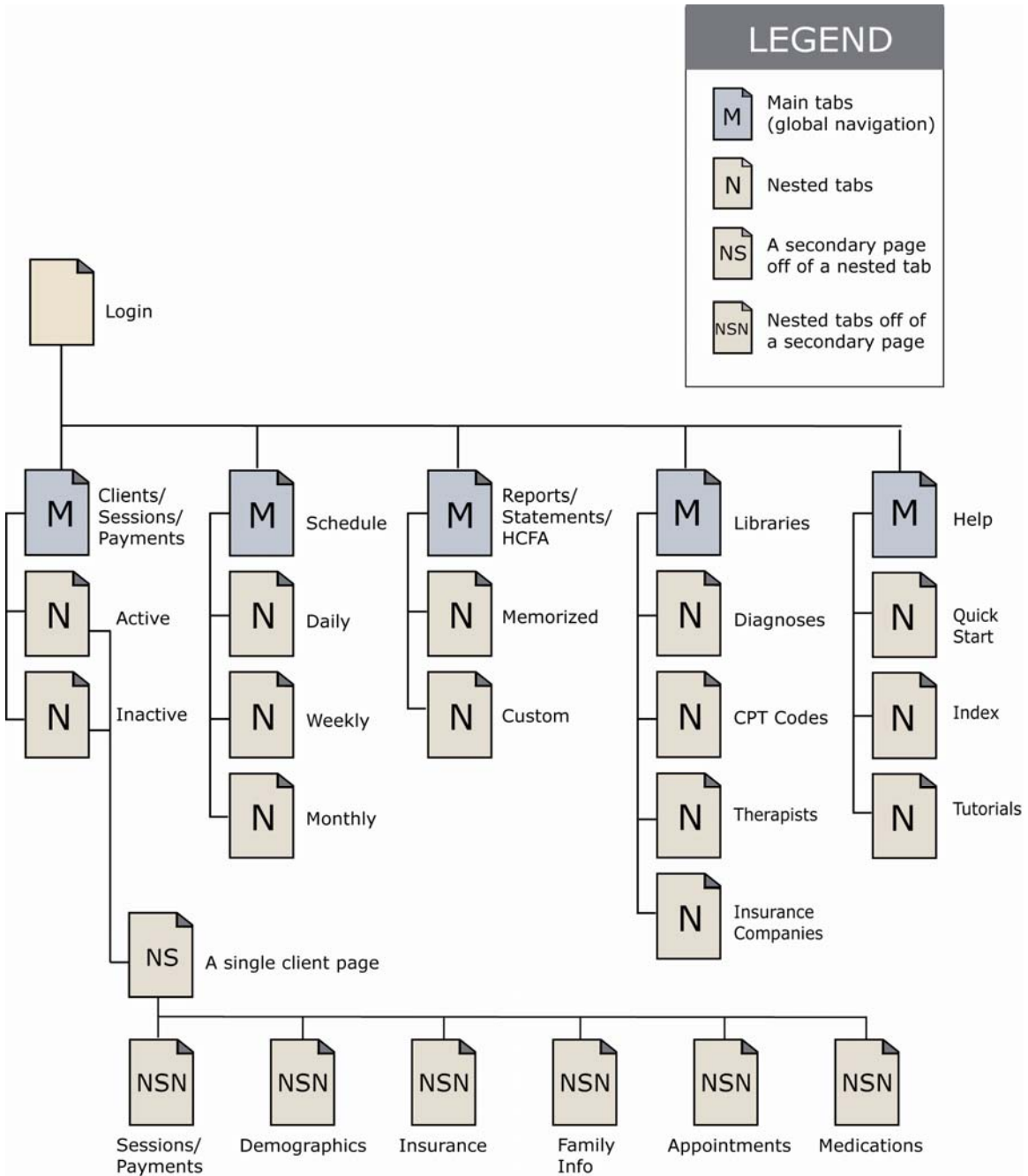
Several working prototypes were created using the initial comp as a starting point. Seven iterations of the prototype as well as discussions of the issues that prompted each new version can be found at:

http://shrink-art.com/_portfolio/changeDocs/docTypesChangeDoc.html



Site Map

The purpose of a site map is to provide a schematic drawing of the main pages on a site to allow a visual representation of navigation. The goal of docTypes is to keep navigation as simple as possible. For this reason, it was decided to cluster all content within five main sections of the site: Clients/Sessions/Payments, Schedule, Reports/Statements/HCFAs, Libraries and Help. The site map appears on the following page.





Wire Frames

Wire frames are schematic representations of the layout of a site's main pages. Their purpose is to give a visual representation of how each page will look and a beginning feel for functionality. Often, they consist of line drawings only, with the large blocks of the site sketched out in chunks. However, because of the intra-page complexity of docTypes, the wire frames for the current document were drawn with considerably more detail.

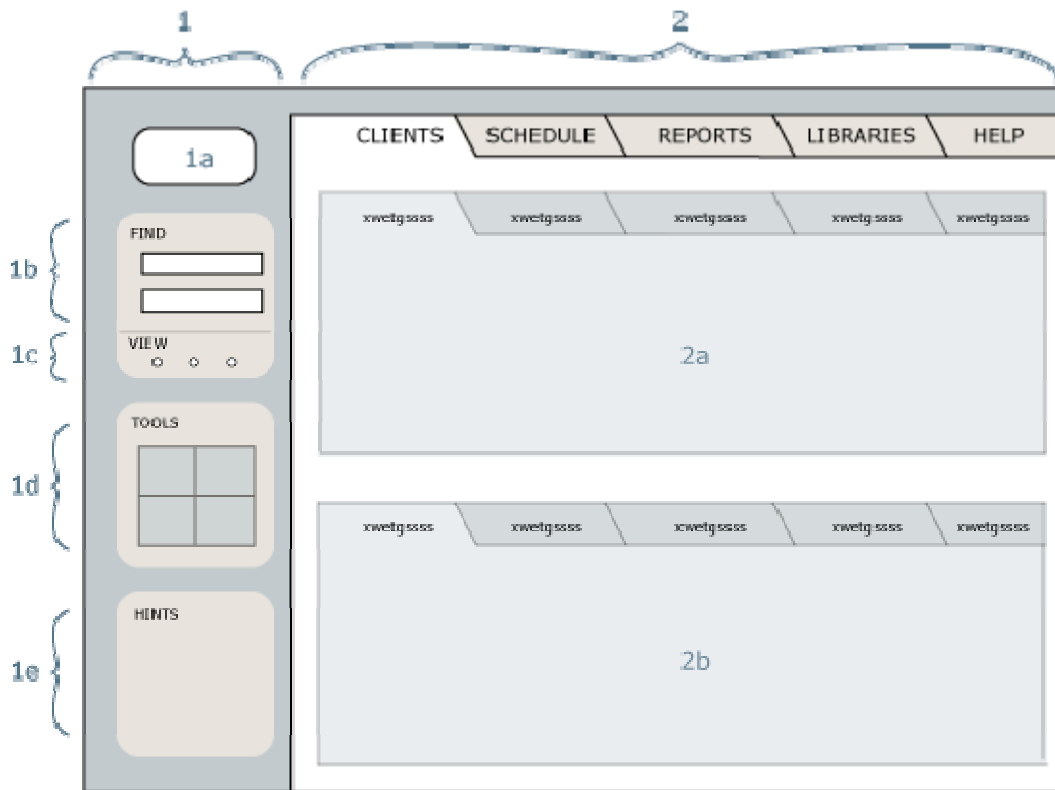
Currently, the site has been designed with a fixed height and a partially liquid width, meaning that the page will cover 100% of the width of the user's screen regardless of their resolution setting. The specific height was chosen to prevent vertical scrolling at resolutions of 800 x 600 or higher. The reason for this was to ensure that the user always has easy access to all tabs and other tools and navigation items. Longer page content has been handled either by an inner div that scrolls and/or by breaking longer pages down into several smaller ones. In the latter case, subsequent pages are accessed by "Next" and "Previous" buttons and/or by tabs. The height issue may be revisited, however, because it has been pointed out that some of the longer pages such as in the "Reports/Statements/HCFA" section might look better with having the actual page scroll, as opposed to the inner div. One solution might be to redesign the site for a higher resolution, thus keeping the fixed height idea but allowing the actual pixel value of the height to be greater. Another idea is to use JavaScript to determine page height and then extend the page length in places where it is necessary.

Generic Layout

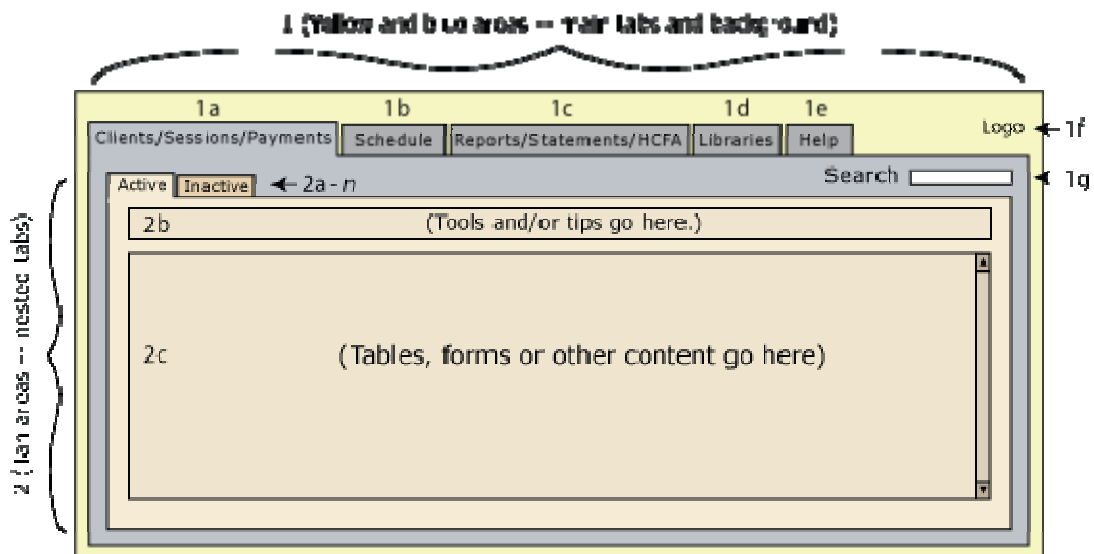
The current layout has changed somewhat from the original design. However, all of the major sections and functionality remain the same; they just appear in different places and/or are implemented in different ways. The original layout will be presented for the sake of maintaining historical documentation:



Original Layout:



Current Layout:





The current layout, like the original, is based on a nested tab system to maximize the amount of content that can be accessed above the fold. The reason for this is to centralize content so that all like items can be accessed from one general location.

The primary differences between the two layouts are:

- ☑ The current version has only one nested tab section per page as opposed to two in the original (sections 2a and 2b in the original illustration vs. section 2 in the current illustration). This change was made because when actually trying to work with the first layout, things quickly became unwieldy. Also, at lower screen resolutions, the second of the nested tab areas was often below the fold.

- ☑ The items in the left nav of the original layout (section 1) are spread throughout the new layout (e.g., 1f, 1g and 2b in the current layout illustration). This change was made to allow tables to expand to the maximum screen width available as opposed to having to compete for space with the left nav.



Explanation of the Generic (Current) Layout

Number	Description
1	Background and Global Navigation. The global navigation for the site will be accomplished by the 5 main tabs (1a – 1e): “Clients/Sessions/Payments”, “Schedule”, “Reports/Statements/HCFA”, “Libraries” and “Help”. These will remain consistent throughout the site, no matter where you are.
1f	Logo. The logo will appear in this area. The default logo will be the docTypes application logo. However, users will be allowed to upload their own logo to appear in this area, in which case a smaller version of the Shrink Art logo will appear elsewhere – probably in the lower right hand corner of the screen.
1g	Search. This is the search area and will consistently be the place the user will be able to locate search boxes. Search boxes will be dynamically generated to match the content of the page. Most pages will have more than one type of search (e.g., “Choose a Therapist” and “Choose a Client”) and in some cases, dropdown boxes will be used, allowing the user to select from existing choices.
2	Nested Tab (Content) Area. This area will be the main display area for content. The number and names of the nested tabs (2 a – n) will vary, depending on which main tab is selected. The “Active” and “Inactive” tabs shown in the illustration appear on the “Clients/Sessions/Payments” page and will be the landing page once a user has successfully completed the login process. Based on needs of any given page, this nested tab area will typically hold tables of data and/or forms for input or display. This section may appear as one large area as shown above or it may be subdivided either horizontally or vertically.
2b	Tools, tips, dropdown boxes. Tool icons will consistently appear in the left-hand portion of this area. Tools will be content specific so that only those necessary for the page being displayed will appear. Some pages will also hold tips for using that page and/or dropdown boxes to allow users to choose among different options. For example, on the “Clients/Sessions/Payments” page, a dropdown box might allow an office manager the ability to choose between viewing data on all clients or only on clients of a specific therapist in the practice.
2c	Content. Content for the site will appear here. It will largely consist of tables holding data drawn from the database and/or forms for inputting or displaying data.



Individual Page Layouts and Features

The actual layouts of individual pages will follow the wireframe above. An explanation of each of these tables is presented below:

Clients/Sessions/Payments: Active

Item		Description	Action/ Technology
Main Tab	Clients/ Sessions/ Payments	Displays a table of clients with the following fields displayed as a default: Last name, first name, cell phone, home phone, work phone, street address 1 & 2, City, State, Zip, Birthday, SSN and Therapist. (Note that these are not all the fields in a client's record but rather, the selected ones that will be needed most often. Users may be given an option to choose which fields they want to display here.	Edit-in-place, various DB queries
Nested Tab	Active	Displays active clients only	
Tools		Add client; archive client; delete client	Adds client info to clients table; Archive changes the client status field; Delete permanently deletes a client's record.
Dropdown Boxes		Allows the user to choose which therapist's client list to display.	
Hints		How to view an individual client's record; How to archive or delete one or more clients.	
Search		Choices are: entire site and client database	
Permissions		Users with all permissions will be able to view client lists of all therapists. Individual therapists may only be able to view their own clients.	



Clients/Sessions/Payments: Inactive

Item		Description	Action/ Technology
Main Tab	Clients/ Sessions/ Payments	As above	As above
Nested Tab	Inactive	Displays inactive clients	
Tools		Activate client; delete client	Activate changes the client status field; Delete permanently deletes a client's record.
Dropdown Boxes		Allows the user to choose which therapist's client list to display.	
Hints		How to reactivate or delete one or more clients.	
Search		Choices are: entire site and client database	
Permissions		Users with all permissions will be able to view client lists of all therapists. Individual therapists may only be able to view their own clients.	



Schedule: Daily

Item		Description	Action/ Technology
Main Tab	Schedule	This will be a 3rd party calendar and/or an open source PHP calendar. It will provide the typical calendar/scheduling functions.	Edit-in-place, various DB queries
Nested Tab	Daily	Shows daily calendars for one or more therapist	
Tools		Add appointment; delete appointment	Add starts a new record for that client in the sessions table; Delete permanently deletes the session.
Dropdown Boxes		Allows the user to choose which therapist's schedule to display.	
Search		Choices are: entire site and calendars only	
Permissions		Users with all permissions will be able to view and edit all therapists' schedules. Individual permission levels will allow view rights to one or more schedules and might or might not also include edit rights.	



Schedule: Weekly

Item		Description	Action/ Technology
Main Tab	Schedule	As above	As above
Nested Tab	Weekly	Shows weekly calendars for one or more therapist	
Tools		As above	As above
Dropdown Boxes		As above	
Search		As above	
Permissions		As above	



Schedule: Monthly

Item		Description	Action/ Technology
Main Tab	Schedule	As above	As above
Nested Tab	Monthly	Shows monthly calendars for one or more therapist	
Tools		As above	As above
Search		As above	
Permissions		As above	



Reports/Statements/HCFAs: Memorized

Item		Description	Action/ Technology
Main Tab	Reports/ Statements / HCFAs	This section of the site holds both pre-defined and user-determined queries to the database. Results can be saved, printed or exported.	Various DB queries
Nested Tab	Memorized	This section holds memorized reports, which includes default reports the program will provide, plus any custom reports the user has created and saved. Statements and HCFAs will be printed from this area.	
Tools		Add report	Links to the "Custom" tab
Search		Choices are: entire site and reports only	
Permissions		Individual users would have access to all reports; persons with individual permission levels would only have access to reports they have created.	



Reports/Statements/HCFA: Custom

Item		Description	Action/ Technology
Main Tab	Reports/ Statements / HCFAs	As above	As above
Nested Tab	Custom	Allows the user to create a custom report including choosing a main topic, choosing which fields to include, applying various filters plus a few basic formatting options.	
Tools		As above	As above
Search		As above	
Permissions		As above	



Libraries: Diagnoses

Item		Description	Action/ Technology
Main Tab	Libraries	This section holds data a therapist uses on a regular basis. It serves as a reference area and also, fields from some of these tables are used to pre-populate drop-down boxes in other areas of the site. For example, the CPT Codes automatically populate drop-down boxes when a user is adding a session. Some libraries come with the program and others are provided by the user. Users may add items to all libraries, even those that come with the program.	Edit-in-place; various DB queries
Nested Tab	Diagnoses	Comes with the program. Holds all ICD-9 and DSM-IV mental health diagnoses. Once a user has used a certain diagnosis, that one will be marked as a 'favorite'. Favorites will appear at the top of the list for easier findability.	
Tools		Add a diagnosis; delete a diagnosis	Queries the diagnosis table
Dropdown Boxes		Select either ICD-9 or DSM-IV; sort by number or name	
Search		Entire site; diagnoses only	
Permissions		All users will be able to view the diagnoses although permission must be granted to add or edit.	



Libraries: CPT Codes

Item	Description	Action/ Technology
Main Tab	Libraries As above	As above
Nested Tab	CPT Codes Comes with the program. Holds all procedure codes pertaining to mental health. Includes non-billable entries such as Client No-Show, Late Cancellation, etc.	
Tools	Add code; delete code	Queries the CPT table
Search	Entire site; CPT Codes only	
Permissions	All users will be able to view the codes although permission must be granted to add or edit.	



Libraries: Therapists

Item		Description	Action/ Technology
Main Tab	Libraries	As above	As above
Nested Tab	Therapists	Is filled in by the user as therapists join the practice. Individual therapists purchasing the program would only have their own information in this section. Holds demographic info plus insurance affiliations, tax ID, NPI, etc.	
Tools		Add therapist; archive therapist; delete therapist	Queries the provider table
Dropdown Boxes		Can toggle therapists with the drop-down box	
Search		Entire site; therapists only	
Permissions		Each user will be able to view and edit his or her own information. Master users will have add/edit permissions for all.	



Libraries: Insurance Companies

	Item	Description	Action/ Technology
Main Tab	Libraries	As above	As above
Nested Tab	Insurance Companies	Is filled in by the user each time they add a new insurance company. Insurance companies can be added from this page and also from the new client form and the add a session form.	As above
Tools		Add insurance; archive insurance; delete insurance	Queries the insurance table
Dropdown Boxes		Can toggle insurance companies	
Search		Entire site; insurance companies only	
Permissions		All users will be able to view all insurance companies. Permission will be required to add or edit.	



Help: Quick Start

Item		Description	Action/ Technology
Main Tab	Help	A reference section for help with the program	DB queries to the help table
Nested Tab	Quick Start	Provides information on common topics for things such as adding, archiving, deleting, etc.	
Search		Entire site or the help section	
Permissions		Granted to all	



Help: Index

Item		Description	Action/ Technology
Main Tab	Help	As above	As above
Nested Tab	Index	An alphabetized index of help topics. Items selected by the user will be displayed on the same page.	
Search		As above	
Permissions		As above	



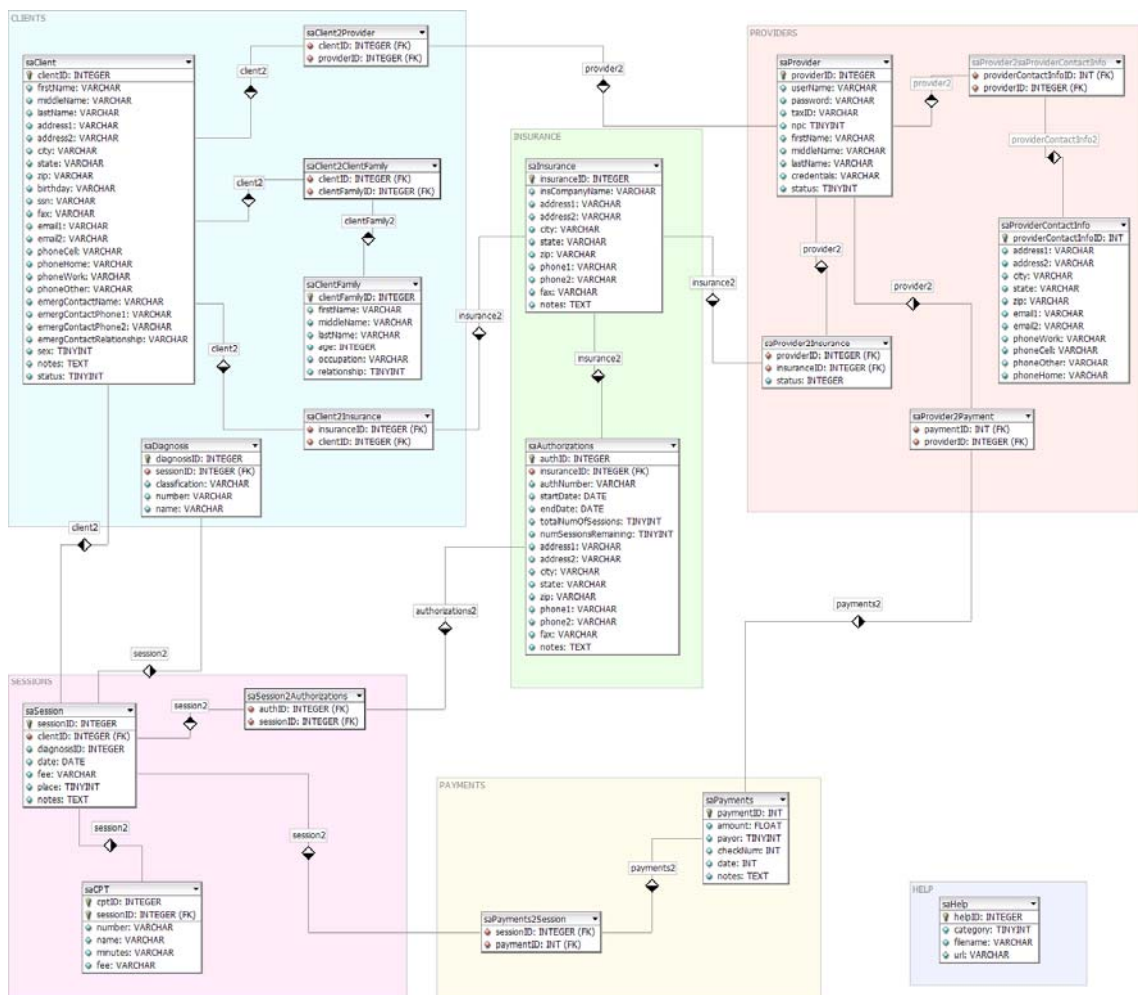
Help: Tutorials

Item		Description	Action/ Technology
Main Tab	Help	As above	As above
Nested Tab	Tutorials	This will be a series of Quick Time tutorials illustrating how to accomplish certain tasks	
Search		As above	
Permissions		As above	



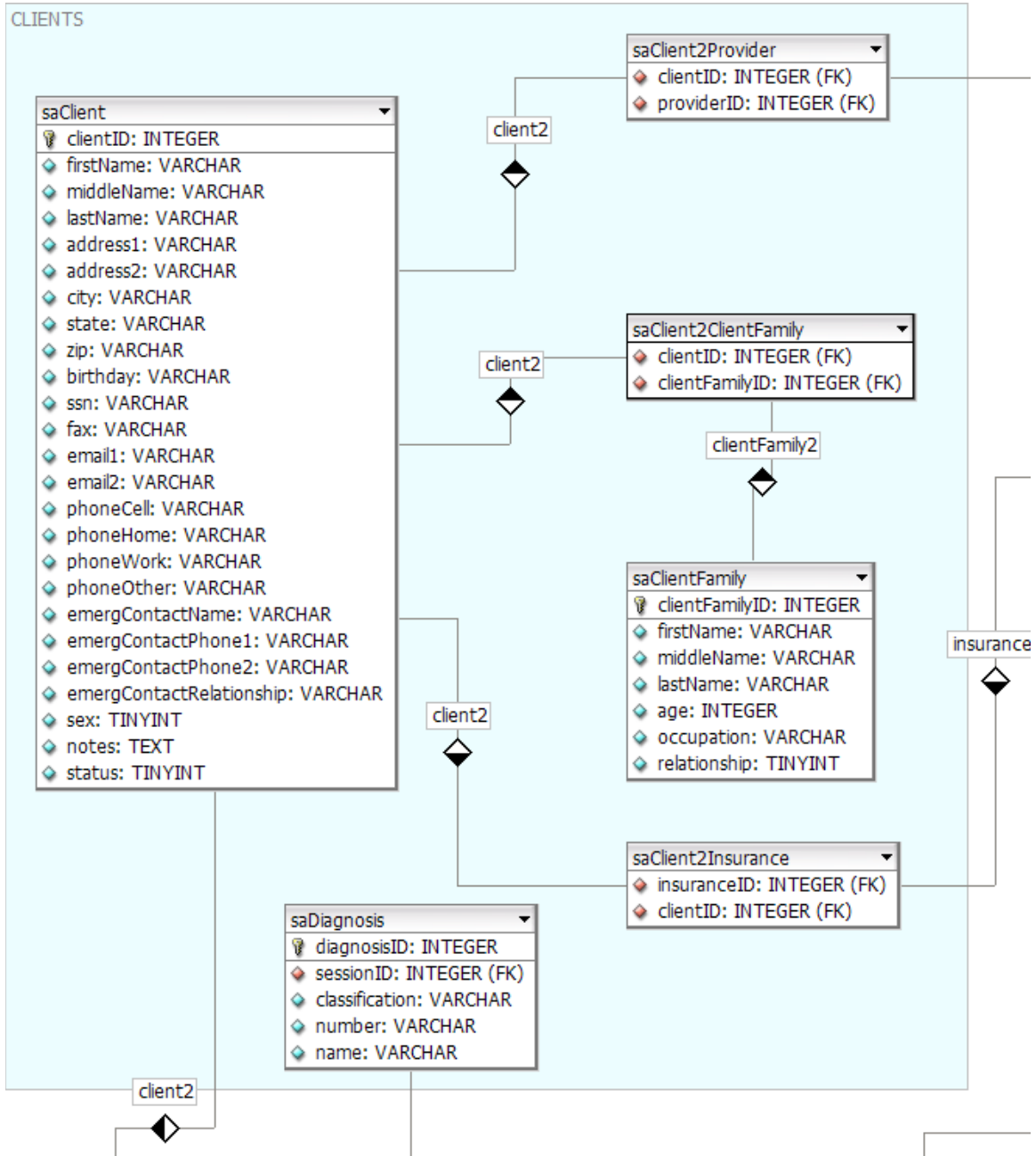
Database Model

The model of the database is too large to be legible on one page so it will be divided into smaller images and be presented on several pages. The image below (which is of the entire model) is included to give an overview in order to assist in visualizing how the smaller images fit together. This model is the model we went into the production phase with. Minor changes have been made since that time. Tables have been grouped by region to make the database easier to understand. Reading from left to right, the color codes are as follows: Cyan = Clients Region; Green = Insurance Region; Tan = Providers Region; Magenta = Sessions Region; Yellow = Payments Region; Blue = Help Region.



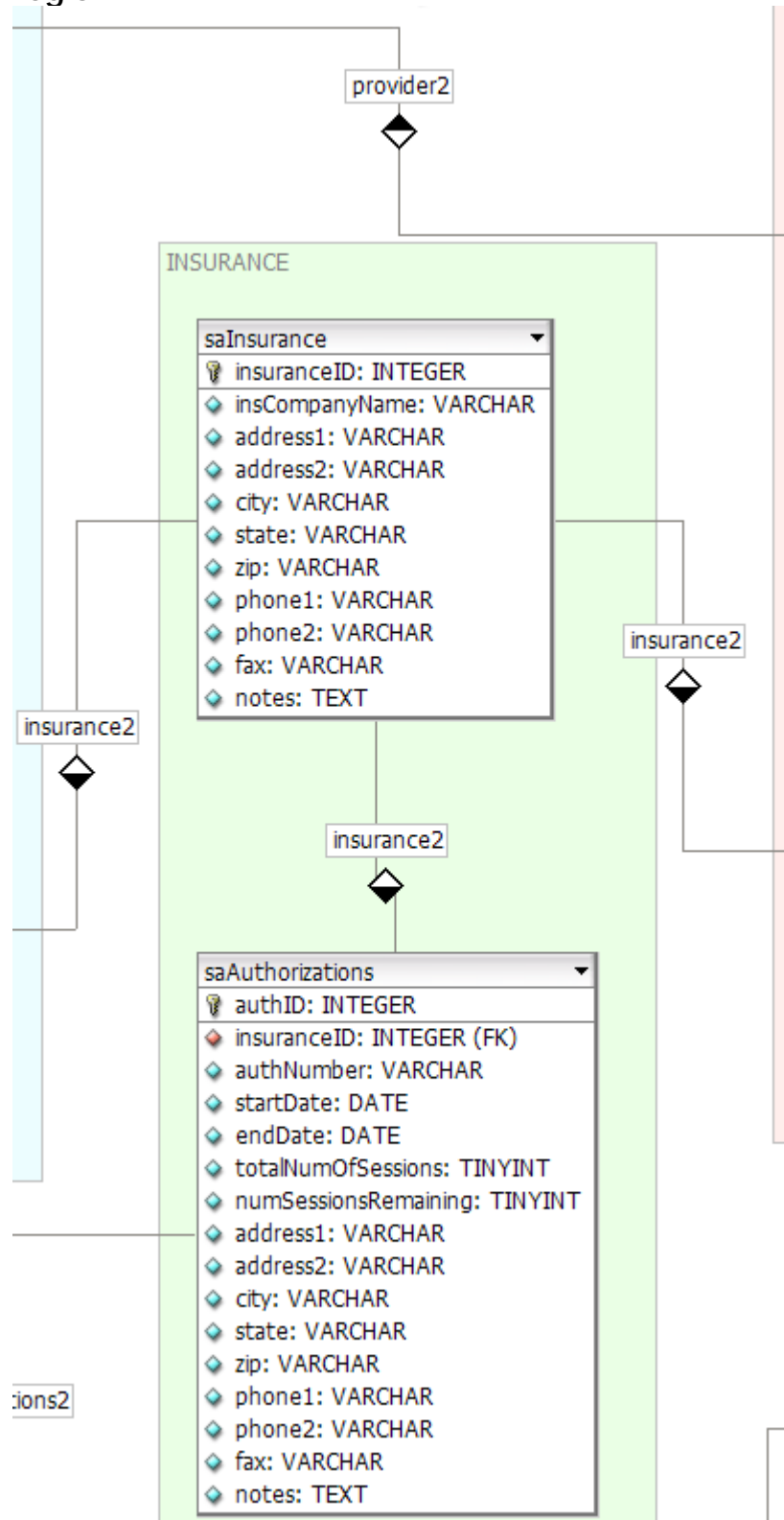


Clients Region



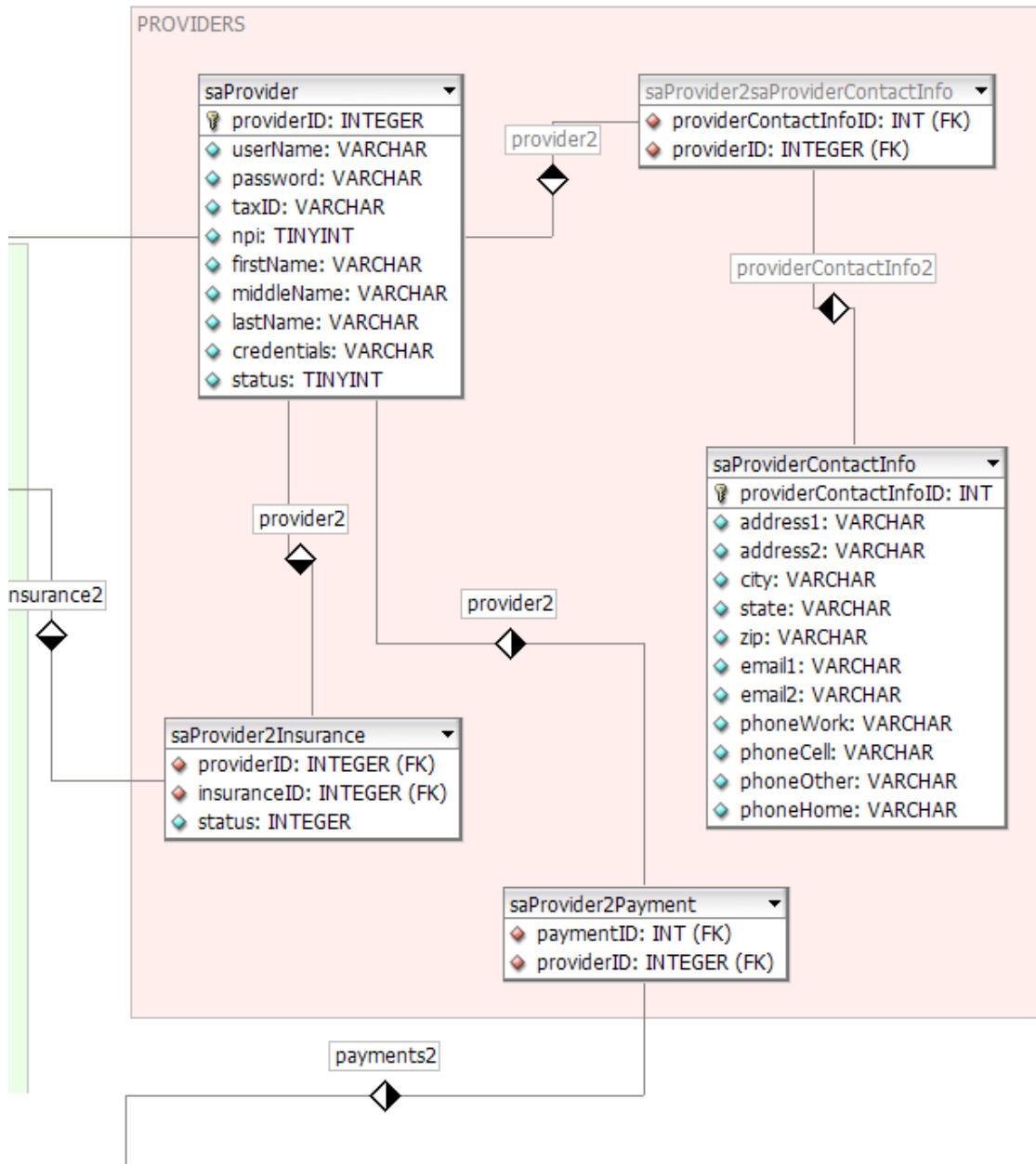


Insurance Region



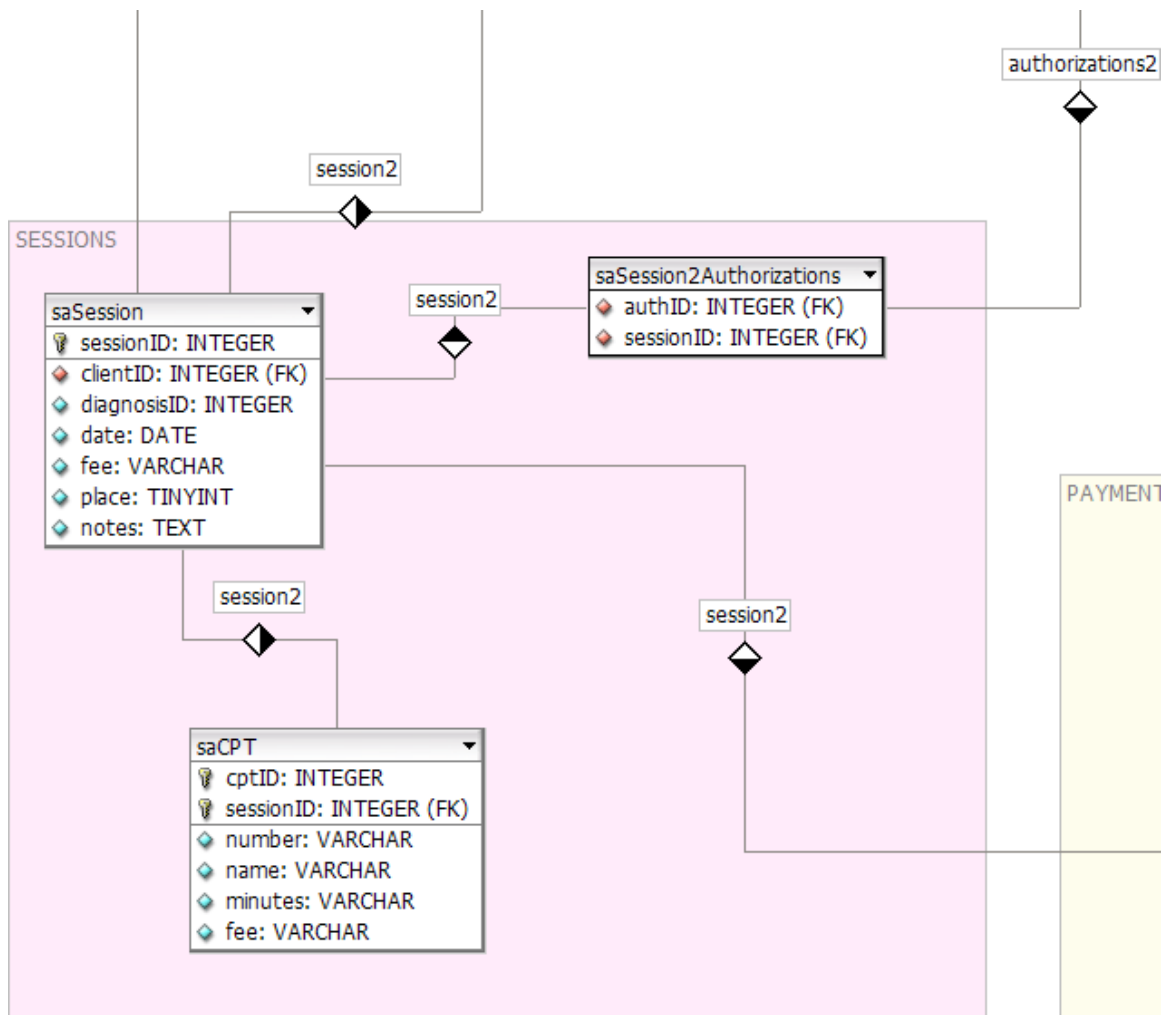


Providers Region



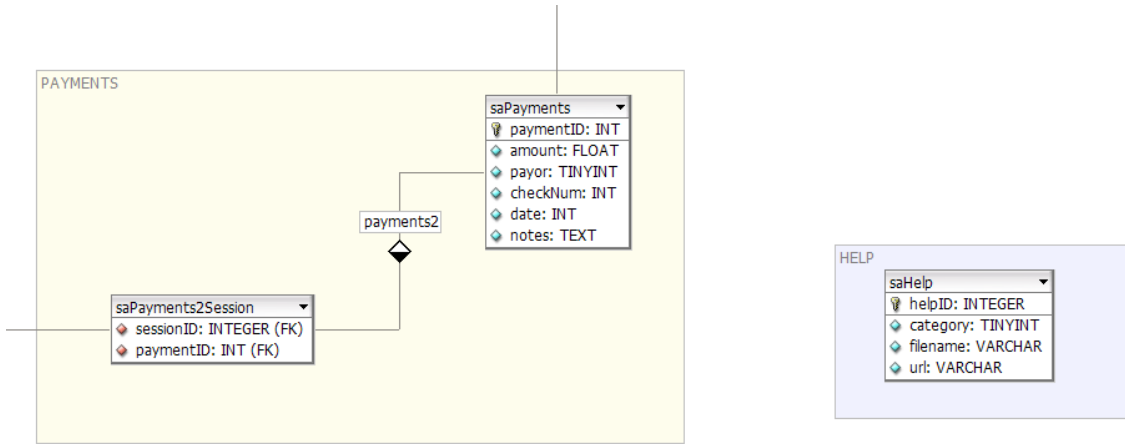


Sessions Region





Payments and Help Regions





Final Prototype

URL

The final prototype used for Senior Project I can be seen at:

<http://shrink-art.com/webapp/>

In addition, the screenshots below highlight the main sections of the site.

Clients/Sessions/Payments: Active

The screenshot displays a web application interface for managing clients. The main content area is titled "Clients/Sessions/Payments" and shows a table of active clients. The table has the following columns: All, Edit, Last Name, First Name, Cell Phone, Home Phone, Work Phone, Street Address, City, State, Birthday, SSN, and Therapist. The table contains 14 rows of client data. Above the table, there are tabs for "Active" and "Archived", and a search bar for "Client information for All Therapists". A red watermark "Name This App!" is visible in the top right corner of the screenshot.

All	Edit	Last Name	First Name	Cell Phone	Home Phone	Work Phone	Street Address	City	State	Birthday	SSN	Therapist
<input type="checkbox"/>		Adams	Jim	777-333-0101	888-222-1053		2964 Greenville Rd	Grants	IA	8/2/81		Gray
<input type="checkbox"/>		Belk	Gillian	777-333-0101	888-222-1053		2964 Greenville Rd	Grants	IA	5/2/42		Gray
<input type="checkbox"/>		Blake	Norman	213-777-3452	441-987-2351	441-925-2590	938 Blackberry Lane	MiddleBerg	IA	10/19/73	778-52-8933	Smith
<input type="checkbox"/>		Boskovitz	Jamie	777-333-0101	888-222-1053		2964 Brown Rd	Grants	IA	10/2/79	441-80-7639	Smith
<input type="checkbox"/>		Conner	David	457-233-5131	803-222-1863		1908 Hunnypot Rd	Middleberg	IA	11/29/64		Carter
<input type="checkbox"/>		Diamonte	Jose	777-333-0101	888-222-1053	313-255-2059	2964 Brown Rd	Connersville	IA	10/2/79	220-66-9302	Smith
<input type="checkbox"/>		Ernst	Josie	777-333-0101	888-222-1053	987-333-1011	313 Brant Rd, Apt 3	Connersville	IA	10/2/59		McNair
<input type="checkbox"/>		Franc	Piet	777-203-9901	238-252-2429	888-345-1717	164 Ophelia Lane	Grants	IA	10/2/84		McNair
<input type="checkbox"/>		Jenkins	Joan	777-333-0101	888-222-1053		234 Cornfield Corner Rd	Marks Corner	IA	10/2/71		Smith
<input type="checkbox"/>		Johnson	Marzelle		888-222-1053	888-345-1717	2964 Greenville Rd	Middleberg	IA	11/5/69		Carter
<input type="checkbox"/>		Kylie	Peter	777-333-0101	888-222-1053		409 Bluebell Ct	Grants	IA	10/2/49		Gray
<input type="checkbox"/>		Lamar	Jonie	777-333-0101	888-222-1053		2964 Greenville Rd	Grants	IA	5/2/42		Gray
<input type="checkbox"/>		Lundon	Billie	213-777-3452	441-987-2351	441-925-2590	938 Blackberry Lane	MiddleBerg	IA	10/19/73	778-52-8933	Smith
<input type="checkbox"/>		Moran	Janine	777-333-0101	888-222-1053		2964 Brown Rd	Grants	IA	10/2/79	441-80-7639	Smith



A Single Client Record

Clients/Sessions/Payments | Schedule | Reports/Statements/HCFA | Libraries | Help

Norman Blake | Display dates from: Start Date to End Date

Sessions/Payments | Demographics | Insurance | Family Info | Appointments | Medications

Sessions: + | Payments: + ?

Next Appointment with Susan Carter, LPC 12/6/2006, 10:00am

SELECT	EDIT	SHOW	SESSIONS				BILLS, PAYMENTS & ADJUSTMENTS					BALANCES		NOTES		
			Date	Type	Therapist	Fee	Bills Sent			Payments Received		Session Balances	Account Totals			
All			Date	Type	Therapist	Fee	Date Submitted	Sent To	Amount	Type	Date Received	Payor	Amt	TOTAL: \$536.93		
<input type="checkbox"/>			12/6/06		Carter											
<input type="checkbox"/>			+ 10/1/06	90806	Carter	\$100.00							\$70.00	\$30.00	\$536.93	Client's co-pay is \$20 but still owes some on deductible.
<input type="checkbox"/>			+ 9/8/06	90847	Carter	\$120.00							\$100.00	\$20.00	\$506.93	Only paid half of his co-pay; will need to bill for the rest.
<input type="checkbox"/>			+ 7/15/06	Client No-show	Smith	\$100.00							\$0.00	\$100.00	\$486.93	Norman knows he's responsible for this amount.
<input type="checkbox"/>			Unassigned Payment		Smith						10/2/06	BC/BS	\$23.07		\$386.93	Insurance adjustment for 2005
<input type="checkbox"/>			+ 7/1/06	90806	Carter	\$100.00							\$20.00	\$80.00	\$410.00	
<input type="checkbox"/>			+ 6/8/06	90847	Smith	\$120.00							\$30.00	\$90.00	\$330.00	
<input type="checkbox"/>			+ 3/15/06	Client No-show	Carter	\$100.00							\$0.00	\$100.00	\$240.00	
<input type="checkbox"/>			+ 2/2/06	90806	Carter	\$100.00							\$100.00	\$0.00	\$140.00	
<input type="checkbox"/>			+ 1/20/06	90847	Carter	\$120.00							\$80.00	\$40.00	\$140.00	
<input type="checkbox"/>			+ 1/13/06	Client Late Cancel	Carter	\$100.00							\$0.00	\$100.00	\$100.00	

SUMMARY TABLE | CUSTOMIZE YOUR VIEW: HIDE | HIDE | HIDE









The Single Client Transaction Register Expanded




SELECT	EDIT	HIDE	SESSIONS				BILLS, PAYMENTS & ADJUSTMENTS						BALANCES		NOTES		
			Date	Type	Therapist	Fee	Bills Sent			Payments Received			TOTAL: \$536.93	Session Balances		Account Totals	
							Date Submitted	Sent To	Amount	Type	Date Received	Payor					Amt
<input type="checkbox"/>			12/6/06		Carter												
<input type="checkbox"/>			10/1/06	90806	Carter	\$100.00							\$70.00	\$30.00	\$536.93	Client's co-pay is \$20 but still owes some on deductible.	
							10/28/06	Aetna	\$70.00	Statement	11/20/06	Aetna	\$20.00	\$30.00			
							10/1/06	BC/BS	\$100.00	e-File	10/28/06	BC/BS	\$30.00	\$50.00			Have submitted to Aetna
											10/1/06	Client	\$20.00	\$80.00			
<input type="checkbox"/>			9/8/06	90847	Carter	\$120.00							\$100.00	\$20.00	\$506.93	Only paid half of his co-pay; will need to bill for the rest.	
							10/15/06	Client	\$10.00	Statement			\$20.00				
							9/15/06	BC/BS	\$80.00	e-File	10/17/06	BC/BS	\$80.00	\$20.00			
							9/15/06	Client	\$20.00	Statement	10/8/06	Client	\$10.00	\$100.00			Only paid half of his co-pay; will need to bill for the rest.
							9/18/06	Aetna	\$40.00	HCFA-1500	10/8/06	Aetna	\$0.00	\$110.00			Aetna doesn't pay for 90847. Have submitted to BC/BS.
											9/8/06	Write-off	\$10.00	\$110.00			
<input type="checkbox"/>			7/15/06	Client No-show	Smith	\$100.00							\$0.00	\$100.00	\$486.93	Norman knows he's responsible for this amount.	
<input type="checkbox"/>			Unassigned Payment		Smith						10/2/06	BC/BS	\$23.07	\$386.93	\$386.93	Insurance adjustment for 2005	
<input type="checkbox"/>			7/1/06	90806	Carter	\$100.00							\$20.00	\$80.00	\$410.00		
							7/28/06	BC/BS	\$80.00	e-File			\$80.00	\$80.00			
											7/1/06	Client	\$20.00	\$80.00			
<input type="checkbox"/>			6/8/06	90847	Smith	\$120.00							\$30.00	\$90.00	\$330.00		
							7/15/06	Client	\$10.00	Statement			\$90.00				
							7/28/06	BC/BS	\$40.00	HCFA-1500			\$90.00				
							7/31/06	Client	\$30.00	Statement	8/23/06	Client	\$20.00	\$90.00			
							8/20/06	Aetna	\$40.00	HCFA-1500			\$110.00				
											8/20/06	Write-off	\$10.00	\$110.00			
<input type="checkbox"/>			3/15/06	Client No-show	Carter	\$100.00							\$0.00	\$100.00	\$240.00		
<input type="checkbox"/>			2/2/06	90806	Carter	\$100.00							\$100.00	\$0.00	\$140.00		
							2/28/06	BC/BS	\$75.00	HCFA-1500	3/5/06	BC/BS	\$75.00	\$0.00			
											2/2/06	Client	\$25.00	\$75.00			
<input type="checkbox"/>			1/20/06	90847	Carter	\$120.00							\$80.00	\$40.00	\$140.00		
							4/15/06	BC/BS	\$40.00	HCFA-1500			\$40.00				
							3/31/06	Client	\$10.00	Statement	4/30/06	Client	\$10.00	\$40.00			
							4/15/06	Aetna	\$60.00	HCFA-1500	4/21/06	Aetna	\$50.00	\$50.00			
											4/20/06	Write-off	\$10.00	\$110.00			
<input type="checkbox"/>			1/13/06	Client Late Cancel	Carter	\$100.00							\$0.00	\$100.00	\$100.00		



Single Client Summary Table



 **Summary Table for Norman Blake** 

CHOOSE DATES		TOTAL BILLS & PAYMENTS		BALANCE ON ACCOUNT
From	To	Bills Sent To:	Payments Received From:	
Start Date 	End Date 	All Payees 	All Payors 	
		\$960.00	\$423.07	\$536.93

 Compute Totals  Print Report  Save Report

Saved Reports for Norman Blake:

Payments sent from 1/1/06 to 4/30/06
Amount received from Aetna from 7/1/06 to 7/31/06



Single Client Family Info

SPOUSE/PARTNER/SIGNIFICANT OTHER	
First Name:	Julia
Last Name:	Blake
Occupation:	teacher

CHILDREN	
First Name:	Gina
Last Name:	Osborn
Birthdate:	xx/xx/xxxx
Age:	
Sex:	<input type="radio"/> Male <input checked="" type="radio"/> Female

First Name:	Jerome
Last Name:	Blake
Birthdate:	xx/xx/xxxx
Age:	
Sex:	<input type="radio"/> Male <input checked="" type="radio"/> Female

First Name:	Heather
Last Name:	Blake
Birthdate:	xx/xx/xxxx
Age:	
Sex:	<input type="radio"/> Male <input checked="" type="radio"/> Female

Add child? +

PARENTS	
MOTHER:	
First Name:	Amanda
Last Name:	Blake
Occupation:	SAHM
FATHER:	
First Name:	Robert
Last Name:	Blake
Occupation:	Deceased. Was engineer.

SIBLINGS	
First Name:	Andi
Last Name:	Osborn
Occupation:	owns bookstore
Birthdate:	xx/xx/xxxx
Age:	
Sex:	<input type="radio"/> Male <input checked="" type="radio"/> Female

First Name:	Jeremy
Last Name:	Blake
Occupation:	sells cars
Birthdate:	xx/xx/xxxx
Age:	
Sex:	<input type="radio"/> Male <input checked="" type="radio"/> Female

First Name:	Joan
Last Name:	Blake
Occupation:	Spoiled Brat
Birthdate:	xx/xx/xxxx
Age:	
Sex:	<input type="radio"/> Male <input checked="" type="radio"/> Female

Add sibling? +



Single Client Appointments

Clients/Sessions/Payments Schedule Reports/Statements/HCFAs Libraries Help **Name This App!**

Norman Blake Display dates from: Start Date to End Date

Sessions/Payments Demographics Insurance Family Info **Appointments** Medications

Appointments: + [edit] [delete]

Next Appointment with Susan Carter, LPC
12/6/2006, 10:00am

RED = upcoming appointments
BROWN = completed appointments

All	Date	Time		Therapist
		Start	End	
<input type="checkbox"/>	1/15/07	3:00pm	3:50pm	Smith
<input type="checkbox"/>	12/22/06	3:00pm	3:50pm	Smith
<input type="checkbox"/>	10/29/06	2:00pm	2:45pm	Carter
<input type="checkbox"/>	10/7/06	3:00pm	3:50pm	Smith
<input type="checkbox"/>	9/15/06	4:30pm	5:20pm	Smith
<input type="checkbox"/>	8/22/06	1:00pm	1:50pm	Carter
<input type="checkbox"/>	8/13/06	7:00am	7:50am	Smith
<input type="checkbox"/>	8/10/06	7:30pm	8:20pm	Smith
<input type="checkbox"/>	7/15/06	3:00pm	3:50pm	Smith
<input type="checkbox"/>	7/7/06	3:00pm	3:50pm	Smith
<input type="checkbox"/>	6/29/06	2:00pm	2:45pm	Carter
<input type="checkbox"/>	6/7/06	3:00pm	3:50pm	Smith
<input type="checkbox"/>	5/15/06	4:30pm	5:20pm	Smith



Single Client Medications

Clients/Sessions/Payments | Schedule | Reports/Statements/HCFA | Libraries | Help **Name This App!**

Norman Blake

Sessions/Payments | Demographics | Insurance | Family Info | Appointments | **Medications**

Medications: + ☺ ☒

Next Appointment with Susan Carter, LPC
12/6/2006, 10:00am

CURRENT MEDS

Zoloft, 50mg, Once daily

MEDICATION HISTORY

All	Date	Drug Name	Dosage	Frequency	Prescribed By	Notes
<input type="checkbox"/>	10/4/06	Zoloft	50mg	Once daily	Frank Smith, MD	Upped this from 25mg
<input type="checkbox"/>	8/14/06	Prozac	DC'd		Frank Smith, MD	
<input type="checkbox"/>	10/4/06	Zoloft	25mg	Once daily	Frank Smith, MD	Switched from Prozac to this
<input type="checkbox"/>	8/14/06	Prozac	40mg	Twice daily	Frank Smith, MD	



Schedule

Clients/Sessions/Payments **Schedule** Reports/Statements/HCFAs Libraries Help Name This App!

Daily Weekly Monthly

Appointments: + Daily Schedule for All Therapists

< WEDNESDAY, DECEMBER 6, 2006 >

Time	Susan Carter, LPC	June Gray, MSW	Paul C. McNair, M.D.	Derek J. Smith, Ph.D.
8:00am	Conner David			
8:30am		Jim Adams	Josie Randstat	
9:00am		Peter Kylie		
9:30am				
10:00am	Norman Blake			Peter Kylie
10:30am			Piet Zurch	
11:00am	Henri Green			
11:30am			Josie Randstat	
12:00pm				Becca Nancie
12:30pm		Gillian Belk		
1:00pm				
1:30pm		Peter Kylie		
2:00pm				
2:30pm				
3:00pm				Janine Moran
3:30pm			Josie Randstat	
4:00pm				
4:30pm		Jonie Lamar	Piet Franc	
5:00pm				
5:30pm	Marseille Johnson			Joan Jenkins



Reports: Memorized

Clients/Sessions/Payments | Schedule | **Reports/Statements/HCFA** | Libraries | Help Name This App!

Memorized | Custom

Reports: +

PRE-DEFINED REPORTS

Select Report	Description	View Sample (pdf files) ?
Statements	Statement with or without diagnoses to s insurance companies, etc.	You must have Adobe Acrobat Reader to view the samples. Download Adobe Reader.
HCFA-1500	Prints a HCFA-1500 for any client. Allow date range for sessions or will start where	
Payments Received	Prints all payments received by one, several or all therapists from any payor. Select the range of dates.	Sample
Payments Sent	Prints all payments sent by one, several or all therapists from any payor. Select the range of dates as well as the method used to send the payment.	Sample
Clients Seen	Displays all clients seen by one or more therapists within a given date range. Allows you to select the client fields.	Sample
Client Demographics	Displays client demographic data. You select the client and the fields.	Sample



Reports: Custom

Clients/Sessions/Payments Schedule **Reports/Statements/HCFAs** Libraries Help Name This App!

Memorized **Custom**

Reports: [Print] [Copy] [Paste]

CUSTOM REPORTS

STEP 1: CHOOSE A MAIN SUBJECT

Main subject of report: Active Clients

Include these fields: All

<input type="checkbox"/> First Name	<input type="checkbox"/> Middle Name	<input type="checkbox"/> Last Name
<input type="checkbox"/> Address 1	<input type="checkbox"/> Address 2	<input type="checkbox"/> City
<input type="checkbox"/> State	<input type="checkbox"/> Zip	<input type="checkbox"/> Birthday
<input type="checkbox"/> Age	<input type="checkbox"/> SSN	<input type="checkbox"/> Gender
<input type="checkbox"/> Cell Phone	<input type="checkbox"/> Home Phone	<input type="checkbox"/> Work Phone
<input type="checkbox"/> Other Phone	<input type="checkbox"/> Fax	<input type="checkbox"/> Email 1
<input type="checkbox"/> Email 2	<input type="checkbox"/> Notes	

Create Report?



Libraries: Diagnoses

Clients/Sessions/Payments Schedule Reports/Statements/HCF A **Libraries** Help **Name This App!**

Search:

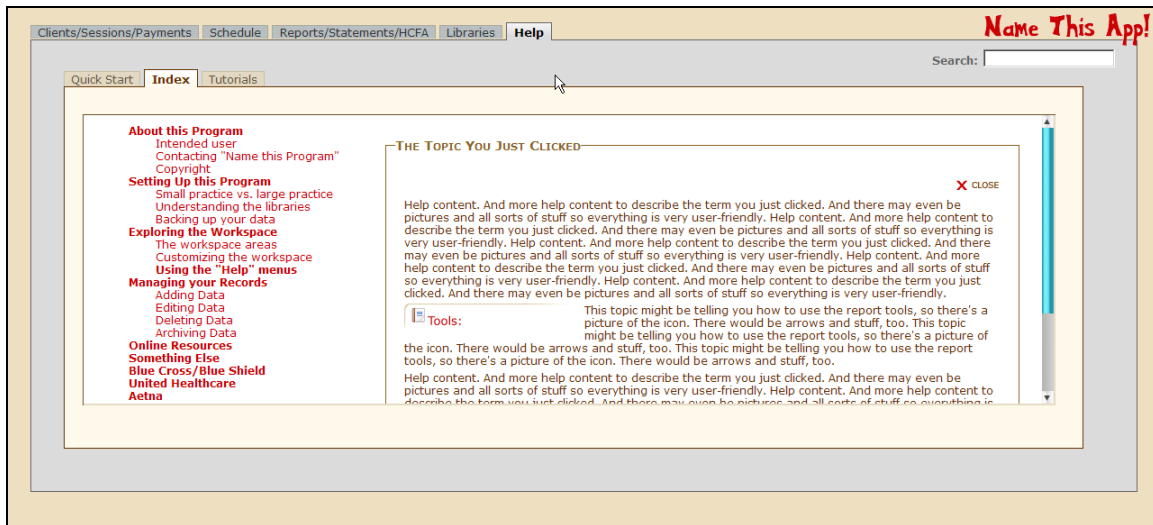
Diagnoses CPT Codes Therapists Insurance Companies

Diagnoses: ★ + ✎ 🗑 Classification system: Sort by:

SELECT	Number	Name
<input type="checkbox"/>	290	Dementia of the Alzheimer's Type, With Late Onset, Uncomplicated
<input type="checkbox"/>	290.1	Dementia Due to Creutzfeldt-Jakob Disease
<input type="checkbox"/>	290.1	Dementia Due to Pick's Disease
<input type="checkbox"/>	290.1	Dementia of the Alzheimer's Type, With Early Onset, Uncomplicated
<input type="checkbox"/>	290.11	Dementia of the Alzheimer's Type, With Early Onset, With Delirium
<input type="checkbox"/>	290.12	Dementia of the Alzheimer's Type, With Early Onset, With Delusions
<input type="checkbox"/>	290.13	Dementia of the Alzheimer's Type, With Early Onset, With Depressed Mood
<input type="checkbox"/>	290.2	Dementia of the Alzheimer's Type, With Late Onset, With Delusions
<input type="checkbox"/>	290.21	Dementia of the Alzheimer's Type, With Late Onset, With Depressed Mood
<input type="checkbox"/>	290.3	Dementia of the Alzheimer's Type, With Late Onset, With Delirium
<input type="checkbox"/>	290.4	Vascular Dementia, Uncomplicated
<input type="checkbox"/>	290.41	Vascular Dementia, With Delirium
<input type="checkbox"/>	290.42	Vascular Dementia, With Delusions
<input type="checkbox"/>	290.43	Vascular Dementia, With Depressed Mood
<input type="checkbox"/>	291	Alcohol Intoxication Delirium
<input type="checkbox"/>	292	Alcohol Withdrawal Delirium



Help: Index







Usability Study

Goals

The purpose of a usability study is to evaluate the current effectiveness of an application and to determine criteria for measuring future success. Results from the current study will be used to make recommendations for changes.

Criteria for Measuring Current Effectiveness

It was decided to use results from the initial Interviews, the resulting User Definitions, the User Task Matrix and the Survey to choose which tasks to include on the Usability Test. As a result, the following broad categories of tasks were chosen:

- Enter client information
- Enter session information
- Enter billing and payment information
- Enter insurance information
- Enter information on a therapist

Both quantitative and qualitative data was gathered by measuring or noting the following things:

- User clicks:** The number of mouse clicks it took a user to complete a task, compared to the least number of mouse clicks required for that task.
- Time:** The amount of time it took the user to complete the task.
- Comments:** Comments the user made while trying to complete a task
- Observations:** Observations made by the person conducting the test (the developer) about the user's performance.

Criteria for Measuring Future Success

At least one, if not two additional usability tests will be performed before an initial version of the application is released for marketing. Once the product is on the market, success will be determined by:

1. There will be at least 100 subscriptions to docTypes in the first year
2. At least 85% of users who contact us for support, will report that their problem has been successfully resolved.

Planning the Usability Test

The tests were designed to be conducted on the developer's laptop, so it would be possible to record each session. TechSmith's Camtasia Studio was used for the recordings.



The usability test was divided into three main sections:

- A. Entering Data
- B. Finding Information
- C. Icon Recognition

Entering Data

The beta version of the application was used for the Entering Data section of the test. At the time of the test, the beta was partially functional. Most of the tasks chosen for the test functioned properly. However, if users strayed into other areas looking for answers, they often did encounter sections that had not yet been built out. Also, due to lag time between getting the beta ready and needing to conduct the Usability Tests, not all bugs were ironed out before the tests began. During the test, if users encountered an area that was buggy or not yet functional, the developer would prompt them to get them back to functional sections. The beta version that was used for the Usability Tests can be found here:

<http://shrink-art.com/docTypes/beta/index.php>

Finding Information

A second portion of the test simply required users to find information as instructed by the developer. The static prototype version of the application (the version created for Senior Project I) was used for this portion of the test because the sections of the application needed had not yet been built out. The prototype version used for this section of the Usability Test can be found here:

<http://shrink-art.com/webapp/index.php>

Icon Recognition

A final portion of the test was to see how well users could identify icons when not in any context. Some users had a printed version of this test and others used an online version found here:

<http://shrink-art.com/docTypes/beta/iconRecognition.php>

Program Setup

To maintain as much test reliability for the users as possible, database tables were set up as follows for each test:

The following tables were empty:

- client
- therapist
- prescribingPhysician



The following tables were pre-populated:

- diagnoses
- cpt
- insurance (but did not include "Aetna")
- medications (includes "Cymbalta" as one of the meds)

An Unexpected Initial Subject

Somewhere along the way between having an HTML prototype and having a working site suitable for usability testing, I made the decision to hire a back-end developer to complete a portion of the code. I had not known to predict this, but he became, in a sense, the first subject for my usability study. Although English is not Gena's native language, he is very bright and grasps concepts quickly. The questions he asked to clarify relationships between tables or to understand the flow of a process highlighted many problem areas I hadn't known existed. Often, he caught functionalities I had failed to include or had included in places that didn't make logical sense.

For example, there was no place in the application to indicate whether a user might have discontinued a medication. A doctor would be able to enter a changed dosage, but he/she wouldn't have been able to indicate that a client was no longer taking a medication. Out of that discussion came the realization that what we're creating with docTypes is a kind of medical record. For legal reasons, entries in medical records can't be deleted. They can be marked as an error, or marked as no longer applicable, but not deleted. This, of course, had major implications for the various "delete" buttons I had sprinkled throughout the site. We were able to come up with some initial ideas about how to implement this functionality, but did not have time to really incorporate them solidly before the usability tests.

Gena also found inconsistencies. For example, on the original form for entering information about a client's family, I had included input fields for birthdays for children and siblings of the client, but not for their spouse or for their parents. You could enter middle names for the client's spouse and for their children but not for their parents or siblings.

Gena had to train me about how to work with a back-end developer. When I built the prototype, I was thinking in terms of scenarios. To transform the prototype into a functional application, Gena thought in terms of forms, tables and databases and needed me to think the same. He went through the site page by page and would send me emails asking, "Which form does this piece of data come from?" Often I knew and could answer but sometimes my answer was an eye-opening, "Oh. I hadn't thought of that. I don't think we have a form for that." Out of these discussions came ideas about how to simplify the site. For example, there's a medication form a user can fill out for new clients. There's also a way to enter a new medication into the medication library at Libraries > Medications. Then on an existing client's record, there's a place to see a list of current medications the client takes plus their entire medication history. In the prototype, each of these forms was unique unto itself. Once I changed my thinking from scenarios to forms and databases, Gena and I worked together to find ways to simplify forms and make them more consistent and reflective of one another.



The Usability Test, Part I: Entering Data

Logon to Program

1. "You are a therapist in private practice and have just subscribed to docTypes. You received a link to your new program via email and are told to use the word "tester" for both the user name and password. You clicked on the link and brought up this page. Enter the user name and password to login to the program, then chose the option to register as a therapist."

Required clicks:

Tester clicks:

Time:

Comments:

Observations:

2. Once they pull up the Add Therapist form: "Fill in your first and last name and your credentials, then submit the form."

Required clicks:

User clicks:

Time:

Comments:

Observations:

Enter Client Information

3. "The next thing you decide you want to do with your new program is to enter information on one of your clients. Try to do that." (Prompt if necessary.)

Required clicks:

User clicks:

Time:

Comments:

Observations:

4. Once they pull up the Add Client form: "Add the following information for your client then submit the form:

First and last name (you can use Jane Doe if you wish)

Birthday (enter June 30, 1987)

Choose yourself for his/her therapist"

Add a "Note" that says, "Referred by Dr. Smith")

Required clicks:

User clicks:

Time:

Comments:

Observations:



5. "After you've submitted the form, you realize that you entered the birthday wrong. Change the date to June 29, 1988 instead. Also, in the Note after 'Referred by Dr. Smith', add 'Dr. Smith does the medication.' (Prompt if necessary.)

Required clicks:
User clicks:
Time:
Comments:
Observations:

6. "Next you want to enter information about your client's insurance company. You only want to enter the name of the company, which is Aetna and your client's insurance ID number which is 12345. Try entering that information."

Required clicks:
User clicks:
Time:
Comments:
Observations:

7. "Your client is currently taking 60mg of Cymbalta once a day. Enter that information."

Required clicks:
User clicks:
Time:
Comments:
Observations:

8. "You realize that you meant to type 30mg twice a day. Change the information you entered to reflect that."

Required clicks:
User clicks:
Time:
Comments:
Observations:

9. "You've finished entering information on this client so close the Add Client window."

Required clicks:
User clicks:
Time:
Comments:
Observations:



10. "Now assume you're no longer seeing the client you just entered and you want to move him/her to your list of inactive clients. Try to do that."

Required clicks:
User clicks:
Time:
Comments:
Observations:

The Usability Test, Part II: Finding Information

Information on a Therapist

11. "For the rest of the test, you won't actually be entering data. This part is just to help me see how difficult or easy it is to find various things. First, assume that you wanted to edit the information you entered on yourself as a therapist. Try finding where you would do that."

Required clicks:
User clicks:
Time:
Comments:
Observations:

Session Information

12. "For this next part, we're assuming that you've had the program for awhile and already have some additional data entered. We want to enter a session for a client named Norman Blake. How would you do that?"

Required clicks:
User clicks:
Time:
Comments:
Observations:

Billing and Payment Information

13. "How would you enter a payment for Norman?"

Required clicks:
User clicks:
Time:
Comments:
Observations:



14. "How much did therapist Susan Carter receive from Aetna for the session with Norman Blake on 9/8/06?"

Required clicks:
 User clicks:
 Time:
 Comments:
 Observations:

The Usability Test, Part III: Icon Recognition

Twenty-four icons were presented to testers either in printed format or on the web. Testers were then given a list of 25 different scenarios or words and instructed to find the icon that most nearly symbolizes the scenario/word. The icons and scenarios are presented below. A few scenarios have a "best" answer as well as one or more other answers that are acceptable. Best answers are worth 2 points, acceptable answers worth 1 point.

The Icons



The Scenarios/Words

1. You want to add new information, such as adding a new session, adding a payment or adding a new therapist. **(Best answer: 6)**
2. You want to enter a date. **(Best answer: 11)**
3. You want to delete some data, such as a client's name, an insurance company or a therapist. **(Best answer: 2; Acceptable answer: 21)**
4. You want to put a client you're no longer seeing in an inactive list. **(Best answer: 3)**



5. You want to hide some data that's currently in the "show" view. **(Best answer: 21; Acceptable answer: 2)**
6. A client that you had marked as inactive is returning for a few sessions and you want to put them back on your active list. **(Best answer: 19)**
7. You want to see a copy of your schedule. **(Best answer: 11)**
8. You want to show some data that is currently in the "hidden" view. **(Best answer: 6)**
9. Medication **(Best answer: 13)**
10. Insurance **(Best answer: 5; Acceptable answer: 17)**
11. Client **(Best answer: 23; Acceptable answer: 20)**
12. Therapist **(Best answer: 9)**
13. Payment **(Best answer: 14)**
14. Diagnoses **(Best answer: 18)**
15. "Favorites" **(Best answer: 4)**
16. "Save" **(Best answer: 16)**
17. Notes **(Best answer: 24; Acceptable answer: 17)**
18. Close Window **(Best answer: 7)**
19. Email **(Best answer: 1)**
20. Print **(Best answer: 15)**
21. E-File **(Best answer: 12)**
22. Balances **(Best answer: 22)**
23. Reports **(Best answer: 17; Acceptable answer: 24)**
24. Summary Table **(Best answer: 8)**
25. Sessions **(Best answer: 20)**



Results and Findings

The test was administered to 3 therapists currently in private practice and one therapist who has retired from private practice. Three of the users (#1, #3 and #4) had also participated in the Interviews (complete in Spring, 2006) and became the basis for the User Definitions. Specifically, User #1 below is Therapist #5 in the User Definitions; User #3 is Therapist #2; and User #4 is Therapist #4. (Complete descriptions of the User Definitions can be found above.)

Quantitative Data, Parts I & II: Individual Statistics

Quantitative data (mouse clicks and time) are presented below. Task Numbers correspond to the specific task in the Usability Study that the user was asked to perform. A summary table as well as discussion of the data follows.

Users	Task Numbers													
	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14
User #1														
Required Clicks	3	4	1	8	3	5	4	3	1	2	3	3	1	0
User Clicks	3	4	1	8	3	15	5	11	3	3	6	15	7	2
Time	:30	:21	:05	1:15	:35	2:45	:51	1:17	:10	:25	1:15	2:45	1:30	1:00
User #2														
Required Clicks	3	4	1	8	3	5	4	3	1	2	3	3	1	0
User Clicks	6	5	3	9	4	5	15	14	2	7	17			
Time	:45	:59	:50	1:30	:30	:44	2:15	2:50	:05	:30	2:30			
User #3														
Required Clicks	3	4	1	8	3	5	4	3	1	2	3	3	1	0
User Clicks	4	4	1	8	3	5	6		3	2	3	2	2	0
Time	:22	:25	:06	1:00	:30	1:00	:40		:08	:14	:20	:24	:05	1:30
User #4														
Required Clicks	3	4	1	8	3	5	4	3	1	2	3	3	1	0
User Clicks	3	4	1	8	8	20	7	13	1	2	3	3	1	3
Time	:07	:13	:02	:38	:50	1:58	:35	:55	:03	:02	:07	:20	:03	



Quantitative Data, Parts I & II: Summary Statistics

Clicks					Time	
Users	Tasks	Required	Users	Extra	Total	Average
#1	14	41	86	45	11:47	:50
#2	11	37	87	50	9:05	:50
#3	13	38	43	5	3:30	:16
#4	14	41	77	36	1:58	:08



Qualitative Data, Parts I & II: Individual Feedback and Observations

Users	User Feedback and Developer Observations
User #1	
User Feedback	This user commented that the program needs more consistency - to always do similar tasks in the same way. This was excellent feedback.
Task #4 observations	User failed to select herself as the therapist; assumed since she was listed, she was selected. The extra click was that she clicked on the calendar.
Task #5 observations	Had learned how to use BD; did NOT click on calendar.
Task #7 observations	Went straight to Insurance tab and easily selected "Add New Company". Then added company name and ID without prompting.
Task #8 observations	Rather than edit the existing listing in "Current Meds", user added a new med. I prompted her to notice that she had 2 listings of Cymbalta in "Current Meds" and asked what she would do about that. She was able to recover, although with difficulty.
Task #9 observations	Was confused by the terminology "Add Client Window" - saw that the heading was "Edit New Client".
Task #11 observations	Used "Help". Found "Where Do I Find: Information on Therapists" easily, but then also tried clicking in the "How Do I? Edit a therapist". Both should work but didn't for this test.
Task #12 observations	User was confused by the checkboxes and pencils. She expected to be able to check the box and bring up the client record. Didn't realize it was a 2-step process. She tried using "Help" but couldn't remember what she had read long enough to get back to the correct page. I prompted her so she could bring up the record. Once the record was up, she found the "Add Session" button easily.
Task #13 observations	Used "Help" and was more successful this time.



Users	User Feedback and Developer Observations
User #2	
User Feedback	1. This user had several observations: 1. Felt the type needed to be much bigger - had difficulty seeing the screen. 2. Wanted NO icons - text cues instead. 3. Suggested that table headers (th) persist down the page so you don't have to scroll up to see what column you're in. 4. Suggested placing "Submit" buttons at the end of each row or at least one at top and one at bottom. 5. Suggested alphabetizing diagnoses in the Library. 6. Suggested a way to bring up each session by date instead of having to look at the large table.
General Developer Observations	This is a Mac user and someone who doesn't use her computer much. She was having difficulty with the mouse, sometimes right clicking, sometimes left clicking, and once trying to click the scroll wheel on the mouse. Some of the extra clicks in her record are from this unfamiliarity with the hardware and the OS.
Task #3 observation	Clicked the picture of the client and the word "Client" before she thought to click the "+"
Task #4 observation	Clicked the calendar after she had already entered the date correctly.
Task #6 observation	Had no difficulty adding a new insurance company.
Task #7 observation	Failed this task. Did not see the Medication tab. Once I prompted her, she wrote 60mg in the input field that should have just had the number. Had to be prompted to use the dropdown box.
Task #8 observation)	This user - as well as each of the others, had difficulty with this task. She did realize she needed to use the "Delete" radio button, but didn't know she needed to resubmit the form after that.
Task #9 observation	User said she'd like to see an "Add another client?" button after she finishes entering data for this one.
Task #10 observation	User didn't know how to use checkboxes. Would put a check in the box, then didn't realize she needed to do anything else.
Task #11 observation	Went to Help > Info on Therapists, but then kept right-clicking things, not realizing she was on the wrong mouse button. She also had difficulty with checkboxes again - not realizing she needed to use the Edit Pencil.
Tasks #12, 13, 14 observations	Due to some errors in the program, I was not able to test the user on my laptop for these last 3 items. Instead, we used her laptop so we could use the online version. As a consequence, I was not able to record the responses, so have no data for clicks or time. One suggestion that came from this section, however, was to do payment entries like this: \$ (box for dollars) . (box for cents).



Users	User Feedback and Developer Observations
User #3	
General Developer Observations	This user, like the one above, mistook Zebra striping on the tables for an indication that a row was selected.
Task #6 observations	I had forgotten to clear "Aetna" from the DB, so I prompted the user to enter a new company which she did without difficulty.
Task #7 observations	Went straight to Medications tab. Only difficulty was with the combo input/select boxes.
Task #8 observations	I failed to enter clicks or time for this task. However, I was madly taking notes. This user also used the "General" fieldset to try to edit the med instead of using the edit pencil in "Current Meds". When I pointed out the dual entry, she realized she needed to delete one but couldn't figure out how to do it. At the end, I asked her if it would have been clearer to have had a trash can icon beside the edit pencil and she said that it would.
Task #11 observations	Went straight to Libraries > Therapists. No difficulty.



Users	User Feedback and Developer Observations
User #4	
General Developer Observations	This user said she would like one tutorial for how to set up the program and another for how to use it once it's set up.
Task #4 observations	This user DID understand she needed to select herself as therapist.
Task #5 observations	Thought she had to close the window then edit the client to make the change. Her method did work and she didn't seem frustrated by it but it was the long way around.
Task #6 observations	User went to the library to add Aetna as a new insurance company. This approach would work, but like the above, was the long way around, thus requiring more clicks.
Task #8 observations	Added second medication entry like everyone else had done but quickly saw how to delete it.
Task#14 observations	Tried to go to "Reports" to see if she could set a filter to get the information. Brilliant! However, not the correct answer for this version. When she got back to the correct page, she first looked at the total received for the session on 9/8/06, instead of the amount from Aetna. One other user had done this.



Quantitative Data, Parts III: Icon Recognition Individual Statistics

The statistics tables below pertain to this set of icon pictures:

1	2	3	4	5	6	7	8	9	10	11	12
											

13	14	15	16	17	18	19	20	21	22	23	24
											



Icon Number	#1	#2	#3	#4	#5	#7	#10	#11	#12
Task	Add	Date	Delete	De-activate	Hide	Schedule	Insurance	Client	Therapist
Best answer (2 points)	6	11	2	3	21	11	5	23	9
Acceptable answers (1 point)			21, 7		2, 7		17	20	23
Tester #1									
Answer	6	11	21	7				20	9
Rating	2	2	1	0				1	2
Tester #2 *(See note below)									
Answer	6		2,7						
Rating	2		2						
Tester #3									
Answer	6	11	7	9	7	11	5	20	23
Rating	2	2	1	0	1	2	2	1	1
Tester #4									
Answer	6	10	2,21,7	3	21	11	5	20	9
Rating	2	0	2	2	2	2	2	1	2



Icon Number	#13	#14	#15	#16	#17	#18	#19	#20	#21	#22	#23	#24	#25
Task	Payment	Diagnoses	Favorites	Save	Notes	Close Window	Email	Print	E-File	Balances	Reports	Summary Table	Sessions
Best answer (2 points)	14	18	4	16	24	7	1	15	12	22	17	8	20
Acceptable answers (1 point)					17					8	24		
Tester #1													
Answer	14	18			24		1	15	12				
Rating	2	2			2		2	2	2				
Tester #2 *(See note below)													
Answer	14	18					1	15		22		8	
Rating	2	2					2	2		8		2	
Tester #3													
Answer	14	18	4	16	24,17	7	1	15	12	22		8	11
Rating	2	2	2	2	2	2	2	2	2	2		2	
Tester #4													
Answer	14	18	4	16	24	3	1	15	12	8	17	8	
Rating	2	2	2	2	2	0	2	2	2	1	2	2	

* Tester #2 began this portion by saying, "I hate icons. I never can figure them out. I much prefer words." She started reading the scenarios and trying to match the icons but gave up after about 5 attempts, all of which were wrong. However, she tried an alternate way and went through the pictures, telling me what she thought each might stand for. She had much more success this way, so these are the answers used for this summary.



Quantitative Data, Parts III: Icon Recognition Summary Statistics

The table below shows the summary statistics for each user for icon recognition:

Users	Total Points	Possible Points	% Correct
User #1	22	50	44%
User #2	16	50	32%
User #3	36	50	72%
User #4	42	50	84%



Discussion

General Findings

The Users. Two of the four testers (#3 and #4) currently use practice management programs with similar functionality to docTypes whereas the other two did not. Also, tester #2 is a Mac user and does not use her computer frequently. As a result, the testers were fairly wide spread in their natural abilities. Overall, testers #3 and #4 breezed through the tests relatively quickly and both commented that they felt the program was fairly easy to navigate. Testers #1 and #2, on the other hand, became frustrated at several points – especially with icon recognition.

The Application. Working with a back-end developer has meant that there's a lag time between when I make a decision about a program change and when the change is implemented. As a result, there were several places in the version used for testing that I knew were not right but I had to go ahead with the testing anyway. My testers were all very forgiving when we encountered things that didn't work, and in some ways, it was a nice experience for me because often, the very things users had the most difficulty with were things that were already queued up to be changed.

The Rough Spots. Specific tasks will now be rated using the following priority rating scale:

Level 1: Prevents completion of task or completes task in such a way that the data entered is wrong

Level 2: Creates significant delay and frustration

Level 3: Has a minor effect on usability

Level 4: Subtle problem: Points to a future enhancement

Level 1 Priority Ratings: For the most part, users tended to experience difficulty in the same places. There were two tasks I would give a Level 1 priority rating:

Task: The task the users had the most difficulty with was #8 – changing a medication value:

“You realize that you meant to type 30mg twice a day. Change the information you entered to reflect that.”

The difficulty is in the way the data is presented. When you first come to the screen to enter meds, it looks like this – which is the way all of the forms look:



Edit an Existing Client

Demographics Insurance Family Info **Medications**

GENERAL


LABEL	CHANGE OR ADD
Drug Name:	<input type="text"/> Select ▾
Strength:	<input type="text"/> ---- ▾
Frequency:	QD (Once a day) ▾
Prescribing Physician:	e ▾

Once you enter a medication, we had decided to create a fieldset for "Current Medications" that would enable a therapist to get a quick picture of what medications the client is currently taking. We came up with something that looks like this:

Edit an Existing Client

Demographics Insurance Family Info **Medications**

CURRENT MEDICATIONS

DATE	DRUG NAME	DOSAGE	FREQUENCY	PRESCRIBED BY	NOTES
 2007-08-16	Cymbalta	60mg	QD (Once a day)		

GENERAL

LABEL	CHANGE OR ADD
Drug Name:	<input type="text"/> Select ▾
Strength:	<input type="text"/> ---- ▾
Frequency:	QD (Once a day) ▾
Prescribing Physician:	e ▾

Clicking the "Edit Pencil" beside the Cymbalta listing in "Current Medications" is supposed to be the way to edit that entry. However, all four testers, when presented with this screen and asked to edit the medication they had just entered, went back down to the "General" fieldset and basically entered a new medication, which meant they ended up with something that looked like this:



Edit an Existing Client

Demographics Insurance Family Info **Medications**

CURRENT MEDICATIONS

DATE	DRUG NAME	DOSAGE	FREQUENCY	PRESCRIBED BY	NOTES
2007-08-16	Cymbalta	60mg	QD (Once a day)		
2007-08-16	Cymbalta	30mg	BID (Twice a day)		

GENERAL

LABEL	CHANGE OR ADD
Drug Name:	<input type="text"/> Select ▼
Strength:	<input type="text"/> ---- ▼
Frequency:	QD (Once a day) ▼
Prescribing Physician:	e ▼

Out of curiosity and to get a bit more mileage out of what I was learning, I prompted the users at this point, by showing them the duplicate entry. All four then began trying to find ways to delete the entry they no longer wanted and all 4 eventually succeeded, but had I not been there to prompt them, most if not all would not have caught the mistake.

Solution: I'm going to have to think a bit about the best solution to this. One of the issues is that eventually, I'm hoping to convert all of these forms to an Ajax interface. In some ways, the table grid entry such as is in the "Current Medications" fieldset may be the way all of the forms end up looking. However, the overall thing I learned from this failure is the importance of keeping things consistent. Had users been entering data in forms that looked more like the tabular data all along, I don't think this task would have thrown them.

The second Level 1 failure was on Task #4, in the part where they were to select themselves as the therapist:

Once they pull up the Add Client form: "Add the following information for your client then submit the form:

First and last name (you can use Jane Doe if you wish)
Birthday (enter June 30, 1987)
Choose yourself for his/her therapist"
Add a "Note" that says, "Referred by Dr. Smith")

What happens here is that some of the users saw their name populated in the "Change or Add" box and didn't realize that their name wasn't also in the "Current" box. They assumed they were already selected as the therapist and did nothing else to add themselves. The screen looked like this:



THERAPIST

LABEL	CURRENT	CHANGE OR ADD
Therapist:		Mary Brown, MSW

Solution: Even though not all users made this error, it stood out for me immediately as a poorly designed part of the program and also, as another example of inconsistency. All other similar places have dropdown boxes with "Select" on them, like this "Relationship" tag which, ironically, is the very next fieldset under the "Therapist" fieldset above:

EMERGENCY CONTACT INFO

LABEL	CURRENT	CHANGE OR ADD
First Name:		<input type="text"/>
Last Name:		<input type="text"/>
Phone 1:		<input type="text"/>
Phone 2:		<input type="text"/>
Relationship:		Select <input type="button" value="v"/>

This latter treatment removes all ambiguity and is a format users are familiar with.

Level 2 Priority Ratings: There were also two tasks I would prioritize as Level 2. Interestingly, both of them involve data that's presented in tabular format, such as the issue with the medication data above.

The first Level 2 issue was on Task # 12:

"For this next part, we're assuming that you've had the program for awhile and already have some additional data entered. We want to enter a session for a client named Norman Blake. How would you do that?"

The page the user was on when given this instruction looks like this:



Active Archived

Clients: + ☺ ☹

All	Edit	Last Name	First Name	Cell Phone	Home Phone	Work Phone	Street Address	City	State
<input type="checkbox"/>		Adams	Jim	777-333-0101	888-222-1053		2964 Greenville Rd	Grants	IA
<input type="checkbox"/>		Belk	Gillian	777-333-0101	888-222-1053		2964 Greenville Rd	Grants	IA
<input type="checkbox"/>		Blake	Norman	213-777-3452	441-987-2351	441-925-2590	938 Blackberry Lane	MiddleBerg	IA
<input type="checkbox"/>		Boskovitz	Jamie	777-333-0101	888-222-1053		2964 Brown Rd	Grants	IA
<input type="checkbox"/>		Conner	David	457-233-5131	803-222-1863		1908 Hunnypot Rd	Middleberg	IA
<input type="checkbox"/>		Diamonte	Jose	777-333-0101	888-222-1053	313-255-2059	2964 Brown Rd	Connersville	IA
<input type="checkbox"/>		Ernst	Josie	777-333-0101	888-222-1053	987-333-1011	313 Brant Rd, Apt 3	Connersville	IA
<input type="checkbox"/>		Franc	Piet	777-203-9901	238-252-2429	888-345-1717	164 Ophelia Lane	Grants	IA
<input type="checkbox"/>		Jenkins	Joan	777-333-0101	888-222-1053		234 Cornfield Corner Rd	Marks Corner	IA
<input type="checkbox"/>		Johnson	Marseille		888-222-1053	888-345-1717	2964 Greenville Rd	Middleberg	IA
<input type="checkbox"/>		Kylie	Peter	777-333-0101	888-222-1053		409 Bluebell Ct	Grants	IA
<input type="checkbox"/>		Lamar	Jonie	777-333-0101	888-222-1053		2964 Greenville Rd	Grants	IA
<input type="checkbox"/>		Lundon	Billie	213-777-3452	441-987-2351	441-925-2590	938 Blackberry Lane	MiddleBerg	IA
<input type="checkbox"/>		Moran	Janine	777-333-0101	888-222-1053		2964 Brown Rd	Grants	IA
<input type="checkbox"/>		Muir	David	457-233-5131	803-222-1863		1908 Hunnypot Rd	Middleberg	IA

This particular file is from the prototype site so to access Norman's record and complete the task, the user could have clicked anywhere on Norman's row: all cells in that table row are just links that go to the correct page. Clicking the Edit Pencil or clicking the checkbox and then the Edit Pencil were also considered successes. All testers had difficulty figuring out how to do this, which surprised me. This "Tip" even appears at the top of the page – only one of the users noticed it:

- Use the checkboxes to archive or delete a client.
- Use the edit pencils to work with an individual client's record.

Some of the users DID think to use the "Help" tab, which was reassuring, and all users did eventually complete this task. I think all found it frustrating, however.

Solution: In general, the users I tested knew their way around forms and were comfortable with them, but they were less used to table formats. One user said she thought the whole thing would be easier if there was just a little "Add" button at the top of each table so that you added the information right there on the table itself (Hello, Ajax?). The concern with that is that on this particular table, much more data is collected on a client than can be (or should be) displayed on the table. It's hard to imagine a tabular way to enter the same data that we're doing with a four-tabbed form. However, it also doesn't seem impossible, so again, once we get to the stage where we're converting to Ajax, these will be issues to keep in mind.

The second Level 2 issue was on Task # 14:

"How much did therapist Susan Carter receive from Aetna for the session with Norman Blake on 9/8/06?"

That information is on this page:



SELECT	EDIT	HIDE	SESSIONS				BILLS, PAYMENTS & ADJUSTMENTS					
			Date	Type	Therapist	Fee	Bills Sent			Payments Received		
All		All				Date Submitted	Sent To	Amount	Type	Date Received	Payor	Amt
<input type="checkbox"/>		-	12/6/06		Carter							
<input type="checkbox"/>		-	10/1/06	90806	Carter	\$100.00						\$70.00
						10/28/06	Aetna	\$70.00	Statement	11/20/06	Aetna	\$20.00
						10/1/06	BC/BS	\$100.00	e-File	10/28/06	BC/BS	\$30.00
										10/1/06	Client	\$20.00
<input type="checkbox"/>		-	9/8/06	90847	Carter	\$120.00						\$100.00
						10/15/06	Client	\$10.00	Statement			
						9/15/06	BC/BS	\$80.00	e-File	10/17/06	BC/BS	\$80.00
						9/15/06	Client	\$20.00	Statement	10/8/06	Client	\$10.00
						9/18/06	Aetna	\$40.00	HCFA-1500	10/8/06	Aetna	\$0.00
										9/8/06	Write-off	\$10.00

Solution: All users did find this information eventually, but there was much gnashing of teeth. One user suggested that it would be easier to be able to click on a session date and bring up all information about that session in a larger screen. This seemed like an excellent idea to me and users could be given a choice of either seeing the data in the big table, or bringing up an individual session. Also, I feel that this is a screen users would learn over time. Given that docTypes is an application as opposed to a normal website, users will have a chance to become familiar with it. Users did say that the color-coding was helpful.

Icons and Miscellany: Two of the users said they would prefer words to icons (e.g., "Add Client" instead of just the "+" by the word Client). The same two users said they would prefer larger type. My sense is that features that allow users to choose between views (icon only, icon and text, text only) and also that allow users at least one other font size could be implemented in the future.

Also, quite a few icons seemed to be problematic. For example, users had trouble deciding which of the figures represented a client, which a therapist and which a session. One user suggested an idea I had wanted to implement but just hadn't gotten around to, which is including two figures for the session icon.

Some of the icons users had trouble with are not ones they would actually have to know. For example, Reports and Insurance are only used for decoration on pages pertaining to reports and insurance and would never actually need to be recognized.

Limitations to the Study

There are several limitations to the current study. Some of the notable ones are:

1. The person administering the test was the developer so it's likely that experimenter bias was present.
2. The test was administered on a laptop which meant the screen was smaller than was optimal.
3. The test was administered on a PC using Firefox 2.0.0.6. Users who were used to different platforms and/or browsers may have been a bit disoriented.
4. The experimenter administered the tests in locations that were convenient for the users. This meant, however, that the environment was not consistent across subjects. The fact that



- the developer knew all of the subjects – some better than others – meant that the way the developer related to each subject was somewhat different as well.
5. The developer watched the recordings of all users to record time spent on each task and number of mouse clicks. However, at times, it was difficult to tell whether a user had just moved the mouse to a different location or whether they had actually clicked. There were also times when the developer became distracted while counting clicks. For these reasons, statistics on both mouse clicks and time should be considered very close approximations as opposed to being 100% accurate.

Conclusions

In summary, docTypes seems to be on the right road but has a ways to go. The Usability Tests reflected several problem areas and also pointed the way on some issues I didn't realize were present. Hopefully, as time goes on and the program is more and more complete, future usability tests will help us refine the application even more for future versions.





Appendix I: Videos of the Usability Tests

Interested readers can find the unedited videos for each of the usability tests below:

<http://shrink-art.com/docTypes/seniorProject2/usability/docTypesTester1/docTypesTester1.html>

<http://shrink-art.com/docTypes/seniorProject2/usability/docTypesTester2/docTypesTester2.html>

<http://shrink-art.com/docTypes/seniorProject2/usability/docTypesTester3/docTypesTester3.html>

<http://shrink-art.com/docTypes/seniorProject2/usability/docTypesTester4/docTypesTester4.html>



References

Getting Real. 37signals. First ed. Chicago: 37signals, 2006. 13 Apr. 2006
<<http://37signals.com/>>.

Miller, John L, MD. "Internet as Therapist and Teacher." athealth.com. 9 Apr. 2006
<http://www.athealth.com/Practitioner/particles/art_InternetAsTandT.html>.

Pastore, Michael. " Physicians' Web Sites, eHealth Plans Mark Future of Healthcare."
<http://www.clickz.com>. 9 Apr. 2006
<<http://www.clickz.com/stats/sectors/healthcare/article.php/594991>>.