

**AMERICAN LANGUAGE PROGRAM – STATEMENT OF FEES (ALP-SOF)****Architecture**

Front-End: C# in Visual Studio 2010  
 Back-End: SQL Server 2008 R2  
 User Interface: Windows Forms  
 Reporting Tool: Report Builder 3.0

**System Used For**

Managing the American Language Program (ALP) of a California State University.  
 Integrates activities related to admitting and registering students in numerous language programs.  
 Centralizes information related to Terms, Study Agreements, Billings and Payments, Waivers and Sponsorships, Promises to Pay, Follow-Up Tasks, Assignments, etc.  
 Contains Management Queues for Statements of Fees (SOFs), SOF Status, Accounting, Billing, Unpaid SOFs, Sponsorships, Embassy Billing, Health Insurance, etc.  
 Users can export their data to MS-Excel Spreadsheets to forward to their Management or other Users.  
 Users can also Print or Export dozens of Reports into a variety of formats; such as PDF.

**Main Form**

Search for Students   Search for SOFs   Create New Records   Follow Up Tasks   Queues   Tools   Reports   Other Forms

Search Value: Enter Search Value Here   Type % in Search Value for looking at all records.   Refresh   ADMIN

DISPLAY: ☐ My Tasks   ☐ My Department   ☒ Other Departments   ☐ I Created   ☒ Not Completed   ☐ Completed   ☐ All

Change User

SOF	Term	Student Name	SOF Status	Follow Up By	Dept	Assigned To	Subject	Original Comment	Follow Up Comment
2230	2135		Pending R...	3/28/2013	ISS		Other (please se...	CC declined	
2167	2137		Pending R...	3/27/2013	ISS		Other (please se...	Invalid CC #	
2190	2137		Pending R...	3/27/2013	ISS		Other (please se...	Invalid Credit Card	
2203	2137		Pending	3/25/2013	ISS		Other (please se...	credit card declined	
2165	2137		Pending R...	3/24/2013	ISS		Other (please se...	Invalid CC. credit card ...	
2158	2137		Pending R...	3/24/2013	ISS		Other (please se...	CC Declined	
2159	2137		Pending R...	3/24/2013	ISS		Other (please se...	CC declined	
2148	2137		Pending R...	3/24/2013	ISS			CC is missing numbers	
524	2127		Pending R...	3/24/2013	ISS		Other (please se...	This SOF says he owe...	
2139	2137		Pending R...	3/23/2013	ALP		Other (please se...	CC Denied	
2118	2135		Pending R...	3/22/2013	ISS		Other (please se...	declined CC	sent email already
2096	2133		Processed	3/21/2013	SS		Incorrect Study ...	Hi Kristin, could you ki...	
2055	2137		Pending R...	3/20/2013	ISS		Other (please se...	Invalid CC	
949	2133		Processed	3/20/2013	SS		Incorrect Study ...		Hi Kristin, this is my fir...
674	2133		Pending R...	3/15/2013	ISS		Other (please se...	SOF has been in our N...	
1968	2137		Pending R...	3/2/2013	ISS		Other (please se...	Invalid CC	
1547	2133		Processed	2/27/2013	SS		Incorrect Study ...	Please change SA in C...	
1856	2133		Pending R...	2/22/2013	ISS		Other (please se...	expired CC.	
1496	2133		Processed	2/16/2013	SS		Other (please se...	This student paid for hi...	

**This is the Main Form of this application.**

Based on their security settings, a user can access all features of the application from this central location. When a User starts this application, their Windows Login ID is used to display all Pending Follow-Up Tasks that have been assigned to that User.

A User also has several choices to manage the program from here.

A User can look at the status of progress made by other Users, as well as their Departments. Users can add new students, search for registered students, etc., based on a variety of criteria; such as Last Name, Student ID, Terms, Study Agreements, etc., from this form. Users can also search for Statement of Fees based on other criteria, such as Terms, Study Agreements and Sponsorships.

There are an additional 40+ other forms that comprise this application.

Tools and data from other existing MS-Access applications were imported and integrated with SOF.

**SOF Details Single Form**

SOF ID: **1565** Student Name:  [Save SOF](#) [ISR Report](#)

**SOF TYPE**  
☒ APPLICATION  
☒ TUITION AND FEES

**FOR QUICK ADMIT**  
☒ EXED EEIEP 8484INTIEP Intensive English Program  
☐ UGRD EECR 8499IOUGST Undeclared Term: 2135

SOF Date: 05/07/2013  ☐ SS Semester: ALP - Summer Cont. ☒ New ☐ Returning

**STUDENT INFORMATION**

CWID:  Date-of-Birth: 11/3/1982 Gender: Female [Details](#)

Last Name:  First Name:  Email:

SOF Status: New

**STUDY AGREEMENT**  

	Wks	Hours	Rate
ALP_SUMMER	\$ 2968.00	0	0 \$ 0.00

Recvd	Date	Payment For	Amount	Payment ID
<input checked="" type="checkbox"/>	5/2/2013	Study Agree...	111.11	
<input checked="" type="checkbox"/>	1/22/2013	Processing Fee...	100.00	

**ADDITIONAL CHARGES**  
☐ Medical Ins. (EP207/c) \$ 0.00 M 0  
☐ TOEFL Test (EP209/c) \$ 0.00  
☒ Processing Fee (EP206/c) \$ 100.00  
☐ Homestay Fee (EP209/c) \$ 0.00  
☐ Housing (E9072) \$ 0.00  
☐ Misc 1  \$ 0.00  
☐ Misc 2  \$ 0.00  
Note:   
**Total Charges: \$ 3068.00**  
**Waiver + Sponsorship: \$ 0.00**  
**Total Balance: \$ 2856.89**

Payment Method: Credit Card [Voucher](#)

Total Payments: \$ 211.11 [Add New Payment](#)

Follow Up Tasks | Waiver / Sponsorship | Promise to Pay Note | **SOF History**

Task Type: All Records Created By: All [Create A New History Task](#)

Task Date/Time	Task Type	Task Description	Created By
5/7/2013 9:53 AM	SOF Status Chang...	SOF Status changed from 'Processed' to 'New'	AD\ueeitco...

Assigned To:  Date:  Subject:  By:  [A](#)

Created By:  Update By:  Update Date:

**This is the Main SOF Details Form.**

This is where all the information related to a Student's admission to an ALP class is displayed. Information related to Study Agreements, Charges and Payments, Sponsorships and Waivers, Promises to Pay, Follow-Up Tasks, etc., are all accessible via this form.

Students List [Double-Click on a Row to View Details]

TERM ID: All Refresh Students List by Term

CWID	Student Name	First	↓ Last	Date-of-Birth	Gender	Student Email	Phone No	Address 1	Address 2	City	State	Zip
893016741	Sultan Ab...	Abdullahi			Male							
893583104	Sattam Su...	Abaalkheel			Male							
892139718	Mohamme...	Ababneh			Male							
893767400	Fahad Kh...	Abahusain			Male							
898087754	Abdulrah...	Abahusain			Male							
893778696	Meshal M...	Abahussain			Male							
893900183	Alireza	Abbasi			Male							
897901716	Yaser S A	Abdallah			Male							
893770453	Ahmed Ab...	Abdelaal			Male							
898083381	Sharl Rady	Abdelmalek			Male							
893770487	Basem M...	Abdelmon...			Male							
897901724	Motaz J A	Abdelrah...			Male							
893592196	Dilyara	Abdikarim...			Female							
893237578	Karim	Abdollahi			Male							
897999645	Soufiane	Abdoun			Male							
893813360	Navid	Abdous			Male							
893309971	Khallaf	Abdulaziz			Male							
893738393	Abdulaziz ...	Abdulaziz			Male							
893218818	Amin Gam...	Abdulhaq			Male							
893591164	Sulaiman ...	Abdulkare...			Male							
893709964	Mohamme...	Abdulkare...			Male							
898121561	Doaa Ah...	Abdulkarim			Female							
893529859	Hamza Ah...	Abdulla			Male							
894161959	Khadija H...	Abdulla			Female							
893360388	Abdullah ...	Abdullah			Male							

This is the Students List Form.

This is one of the many Lists that Users can use to search a variety of information available in this application. Any column in this list can be sorted in Ascending or Descending Order by clicking on the Column Header. The list above has been sorted in Ascending Order by the Last Name column.

Students List [Double-Click on a Row to View Details]

TERM ID: All Refresh Students List by Term

CWID	Student Name	First	↑ Last	Date-of-Birth	Gender	Student Email	Phone No	Address 1	Address 2	City	State	Zip
897953782	Jurij	Zykov			Male							
892132283	Julia	Zwiener			Female							
893306894	Mohamma...	Zurgi			Male							
801969015	Stanislav	Zuckerma...			Male							
893479790	Yihan	Zu			Female							
893423665	Pufeng	Zou			Male							
893568410	Peng	Zou			Male							
893777110	Haiquan	Zou			Male							
893060004	Wei	Zou			Male							
893661793	Xu	Zou			Female							
898084264	You	Zou			Female							
801960840	Sonja	Zorn			Female							
893557215	Manuel	Zorn			Male							
801960857	Julia	Zorn			Female							
892118621	Arwaa W...	Zorgey			Female							
892123001	Zheng	Zong			Male							
802100180	Li	Zong			Male							
897905709	Di	Zong			Female							
893271684	Lina	Zolotarova			Female							
893459206	Jaro Milan	Zink			Male							
893558262	Julia	Zimmerma...			Female							
892123878	Sabrina	Zimmerer			Female							
893295196	Jantje	Zimmer			Female							
893416354	Patrick Mi...	Ziegler			Male							
893780247	Parissa	Ziaei			Female							

This is the same Students List shown above. But, it is sorted in Descending Order by the Last Name Column.

This is the Agent Form which integrated existing Referral Fees and Students data into a centralized location. Since some agents had multiple offices (aka Branches), this feature was added into SOF to allow Users to track and work with multiple branches of one Agency, thereby improving the efficiency of the Users involved.

This is the Study Agreements Queue.  
It allows filtering of data based on a selected Term, and/or Study Agreement.  
All the columns on this Grid View are also sortable in Ascending or Descending Order.  
The Study Agreements List button, displays the selected data in a Report Format, which can be sent to others.

Statement of Fees Queue

TERM ID:  [Statement of Fees List](#)

SOF ID	CWID	Student Name	Payment Method	Additional Notes	App. Date	SOF Type	Term	SOF Status
167			Credit Card		8/30/2012	Application	2127	New
147			Check - Personal		8/17/2012	Tuition and F...	2127	New
138			Credit Card			Tuition and F...	2127	New
134			Credit Card			Application	2127	New
131			Cash			Application	2127	New
126			Cash			Application	2125	New
84			Check - Company	Test Message	7/13/2012	Application	2125	New
93			Check - Company		7/12/2012	Application	2125	New
95			Wire Transfer/ACH		7/12/2012	Application	2125	New
105			Traveler's Check		7/10/2012	Application	2127	New
90			Wire Transfer/ACH			Application	2123	New
86			Credit Card		7/1/2012	Application	2125	New
123			Cash			Tuition and F...	2127	New
111			Check - Personal	Process Credit Card Payment		Application	2123	New
120				Check	7/2/2012	Application	2127	New
119			Cash			Application	2125	New
118			Installment Payment ...	Check - overpayment credit ...	7/6/2012	Tuition and F...	2127	New
117			Credit Card	Check	7/6/2012	Tuition and F...	2127	New
116			Wire Transfer/ACH	Check - over payment , cre...	8/31/2012	Tuition and F...	2127	New
113			Installment Payment ...		7/30/2012	Application	2123	New
112			Credit Card		7/2/2012	Application	2127	New
87			Installment Payment ...			Application	2125	New
107			Cash			Tuition and F...	2127	New
106			Wire Transfer/ACH			Tuition and F...	2127	New
101			Check - Personal			Registration	2127	New
100			Check - Company	Over payment of \$25, Pleas...		Application	2127	New
99			Credit Card			Application	2127	New
94			Installment Payment ...			Application	2127	New
23			Wire Transfer/ACH	Payment over \$25	7/16/2012	Application	2123	New
85			Check - Personal		7/30/2012	Application	2123	New
21			Installment Payment ...		7/30/2012	Create CWID	2123	New
24			Cash			Tuition and F...	2127	New
11			Installment Payment ...			Application	2123	New

This is the Statement of Fees Queue.

It allows filtering of data based on a selected Term.

Like other Queues, the size of this form is adjustable. That size is maintained when this Queue is reopened.

Main SOF Form

Search for Students

- By Last Name
- By CWID
- By Term

Search for SOFs

- By Last Name
- By CWID
- Tabbed SOF Details Form
- Single SOF Details Form
- By Sponsorship
- By Term
- By Semester

Create New Records

- New Student Record
- New Agent Record
- New Default Fee Record
- New Sponsorship Record
- New Term Record

Follow-Up Tasks

- For ACCT
- For ALP
- For ISS
- For NUERT
- For SS
- For USA
- For ADMIN
- Reassign Tasks

Queues

- Flexible Queue
- Statement of Fees
- Accounting Review
- Installment Plans
- SOF Status = Complete
- SOF Status = New
- SOF Status = Processed
- SOF Status = Pending
- SOF Status = Reviewed
- SOF Status = Pending Review
- Study Agreements
- Additional Charges
- Unpaid SOFs
- Sponsorships
- Embassy Billing
- Tuition/Fees
- TOEFL
- Housing Fees
- Medical Insurance
- Homestay Fees

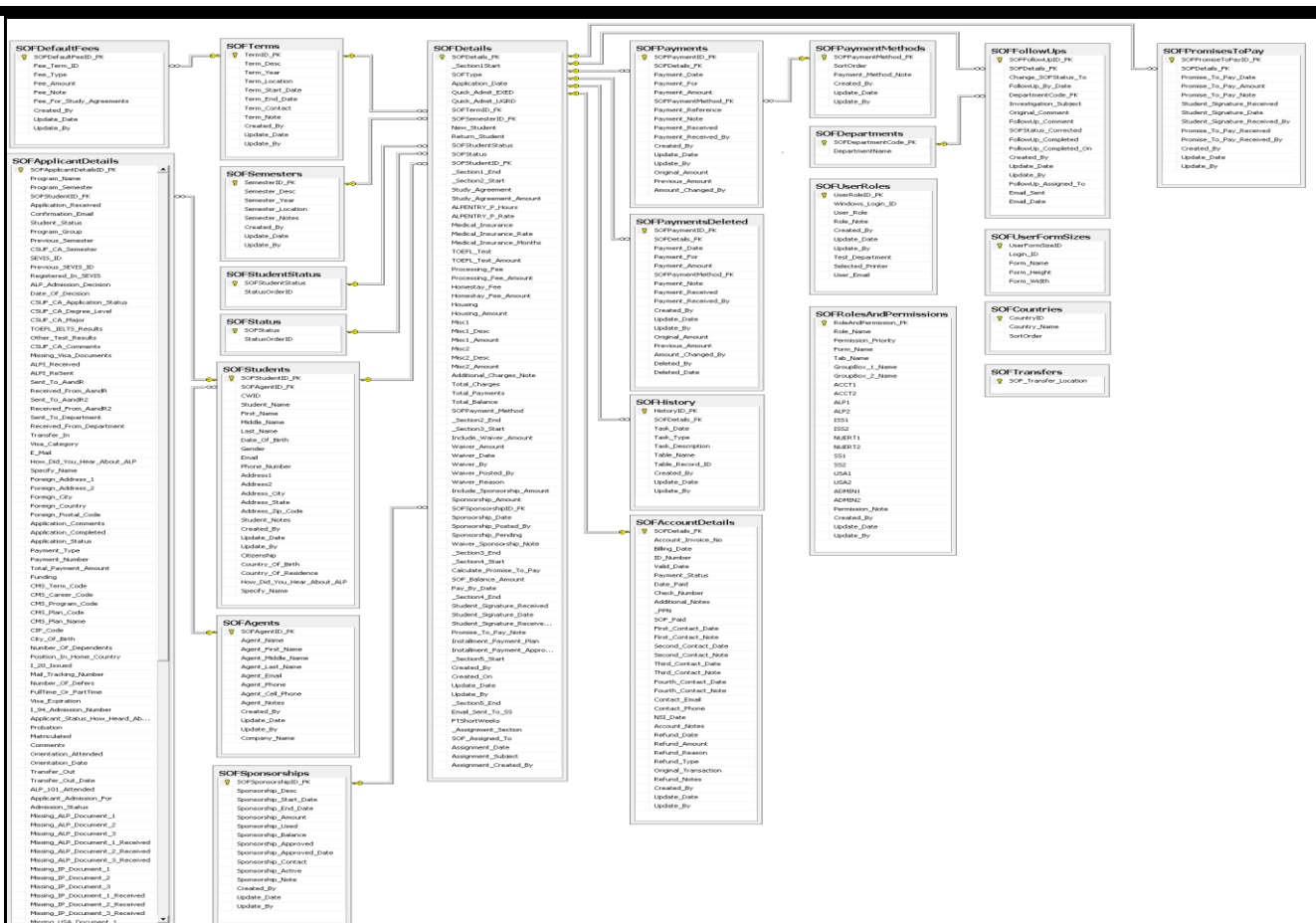
Reports

- Print ISR Report
- Print ISR + Payments Report
- Print Voucher
- Batch To Print Form
- Permissions by Role
- Print User Roles
- Additional Charges List
- Agents List
- Default Fees List
- Installment Plans List
- Promise-to-Pay List
- Semesters List
- SOF Follow Ups List
- Sponsorships List
- Statement of Fees List
- Student Reports ...
- Study Agreements List
- Terms List
- TOEFL Payments
- Unpaid SOFs List
- Waivers List
- Summaries ...
- Financials ...
- Follow Up Tasks ...
- Paid Lists ...
- Queues List ...

Other Forms

- Agent Form
- Agents List
- Default Fees List
- Semesters List
- Sponsorship Form
- Sponsorships List
- Students List
- Term Form
- Terms List
- Permissions List
- User Roles Form
- User Roles List

This is the overall Menu Structure of the application.



This is a Partial Schema of the Database.



## DEBT SETTLEMENT MANAGER

### Architecture

Front-End: Access 2000+ / Upgraded to Access 2013  
Back-End: SQL Server 2000+ / Upgraded to SQL Server 2012

### System Used For

Managing all aspects of debt management and settlement.  
It integrates all activities related to the company's Client Services, Account Services, Electronic Funds Transfer, Accounts Receivables and Agent Commissions.

FILE
LOMS

Login

Reports Panel

Managers Panel

Admin Panel

Close

Main Switchboard
USE THIS VALUE: 03-0510 [Hide Closed](#)

SEARCH CLIENTS
Open
Open
SEARCH CASES

By Client ID:

By Client Last Name:

By Client First Name:

By Company Name:

By Client Phone Nos:

By SSN or EIN:

By SO:

By SA:

By State:

Suspended Clients:

No Hardship Entered:

Enter New Client:

Change Password:

By Creditor Name:

By Agent Name:

By Account Number:

Settled / Not Closed:

Pending:

CALLOUT SELECTORS

90-Day Callout:

Low / No Settlements:

Red Cases:

Litigation Callout:

Pre-Litigation Callout:

Judgment | Arbitration:

Bankable | 40%+ Trust:

PSS1
Close

Legal Settlement Dept
Client Services

USER PANELS

Reports Panel: 
Managers Panel: 
Admin Panel:

MY TASKS

Tasks Assigned To
Open
Done

PSS1 - Urgent: 
PSS1 - Due:

My Group - Due:

Display Task Choices

3
7
15
30
All Days

Refresh Tasks

Refresh Time: 30 min

LEGEND >>
Worked On
Due Now
Past Due Date
Urgent

Urgent	Client ID	Client Name	Entered	Follow-Up Date	Task	Creditor/Agent	Entered By	Assigned To	Completed
<input checked="" type="checkbox"/>	05-0164		18-Aug-05	18-Aug-05	acct w/ agent / assigned to kk/bn	Citibank USA	bcosta	KKELLY	<input type="checkbox"/>
<input checked="" type="checkbox"/>	04-0720		15-Aug-05	18-Aug-05	lm 4 agent. Trying 2 reach a settlement	First USA Bank	agriffin	agriffin	<input type="checkbox"/>
<input checked="" type="checkbox"/>	04-0693		18-Aug-05	18-Aug-05	rec'd subpoena duces & notice of oral exam cl is required to appear in ct on 9/9/05 @ 12pm	AT&T Universal Card	bcosta	Lowens	<input type="checkbox"/>
<input checked="" type="checkbox"/>	02-0473		15-Aug-05	18-Aug-05	cid Creditor Mr. Oliver offered \$346.00 and countered w/ \$353.00 creditor std tht he wld submit the offer....creditor std tht hes still	FCNB	tjackson	tjackson	<input type="checkbox"/>
<input checked="" type="checkbox"/>	02-0941		15-Aug-05	18-Aug-05	lm 4 agent. Trying 2 reach a settlement	Discover Financial	agriffin	agriffin	<input type="checkbox"/>
<input checked="" type="checkbox"/>	03-1114		19-Aug-05	19-Aug-05	LITIGATION STATUS CHANGED! Filing deadline date 9/16/05	AT&T Universal Card	bcosta	Lowens	<input type="checkbox"/>
<input checked="" type="checkbox"/>	04-0455		19-Aug-05	19-Aug-05	acct in pre lit & w/ a agent	Citibank USA	bcosta	Lowens	<input type="checkbox"/>
<input checked="" type="checkbox"/>	02-0886		16-Aug-05	19-Aug-05	T/agent said fax letter last night hold for SIF letter this is a Citibank account agent didn't want to SIF..		lowens	lowens	<input type="checkbox"/>
<input checked="" type="checkbox"/>	02-0069		17-Aug-05	22-Aug-05	cid creditor to see if she wld be abl to sif acct for \$4000.00 creditor std tht she wld need a hardship along with financials	Auto Nation	tjackson	tjackson	<input type="checkbox"/>
<input checked="" type="checkbox"/>	04-0583		22-Aug-05	22-Aug-05	BIM called me, says account going to atty on Thus unless we settle want 10800 I declind, told him what we settled with	Citibank USA	bn	tjackson	<input type="checkbox"/>

Record: 1 of 989

This is the Main Switchboard of the system.

Through this menu tasks assigned to every staff member and their departments are automatically dispersed.

Urgent tasks are highlighted in red.

Users can filter the tasks in a number of ways.

The tasks in progress are highlighted so that members of the team know that it is being worked on.

Users can drill down to a client's information or a specific case directly from this screen.

Users can also access the Admin, Managers and Reports Panels from this screen.

This is the Accounts tab of the Client Form, which integrates all accounting aspects of the client.  
This form contains more than a thousand fields and buttons.  
It integrates every aspect of the client's data in one place through more than 20 sub-forms.  
The code behind this form and sub-forms has more than 10,000 lines.

This is the Canned Letters tab of the Client Form.  
Users can create dozens of preformatted and automatically filled letters through this tab.  
Creditors with fax numbers are automatically sent faxes through a Fax Server.  
Users can also preview and make changes to these letters before sending them.



**PDM Administration Panel**

**LABEL COLORS:**  
 - Black: No Dates    - Blue: Starting Date    - Red: Both Dates    - Brown: Ending Date

**Starting Date** 29-Sep-07    **Ending Date** 29-Sep-07    ☐ Mark Overdue Tasks Urgent

**Auto Letters   Commissions   Trust Mgm't   Maintenance   Payments / Deposits   Reports   Spreadsheets**

<b>1</b> Create Next EFT Transactions Pending EFT Batch Report (Processing Date) <b>2</b> Export ST1 Next EFT Transactions <b>3</b> Process CFG Pending EFT Transactions Suspend Inactive CFG Clients <b>A</b> Load Trust Balance from Spreadsheet (ST1) <b>B</b> Load Current Balance Report (CFG) <b>C1</b> Load Client Report (CFG) <b>C2</b> Load Company Report <b>D</b> Load NSF Transactions (CFG)     CFG Acct Status <b>E</b> ST1 to CFG Transfer Tool     Unsubmitted Trans. Missed EFTs Report << New	EFT Batch Tool     Locked EFTs Report EFT Batch Report (Transaction Date) EFT Batch Report (Processing Date) Pending EFT Batch Report by Client ID EFT Batch Report by Client ID <b>R</b> Reconcile GCS Monthly Payment Statement Reconciliations Missed Prepare A/R Spreadsheet Print A/R Spreadsheet Prepare A/R Spreadsheet (w/o MSF*) Print A/R Spreadsheet (w/o MSF*) Prepare A/R Reconciliation Spreadsheet
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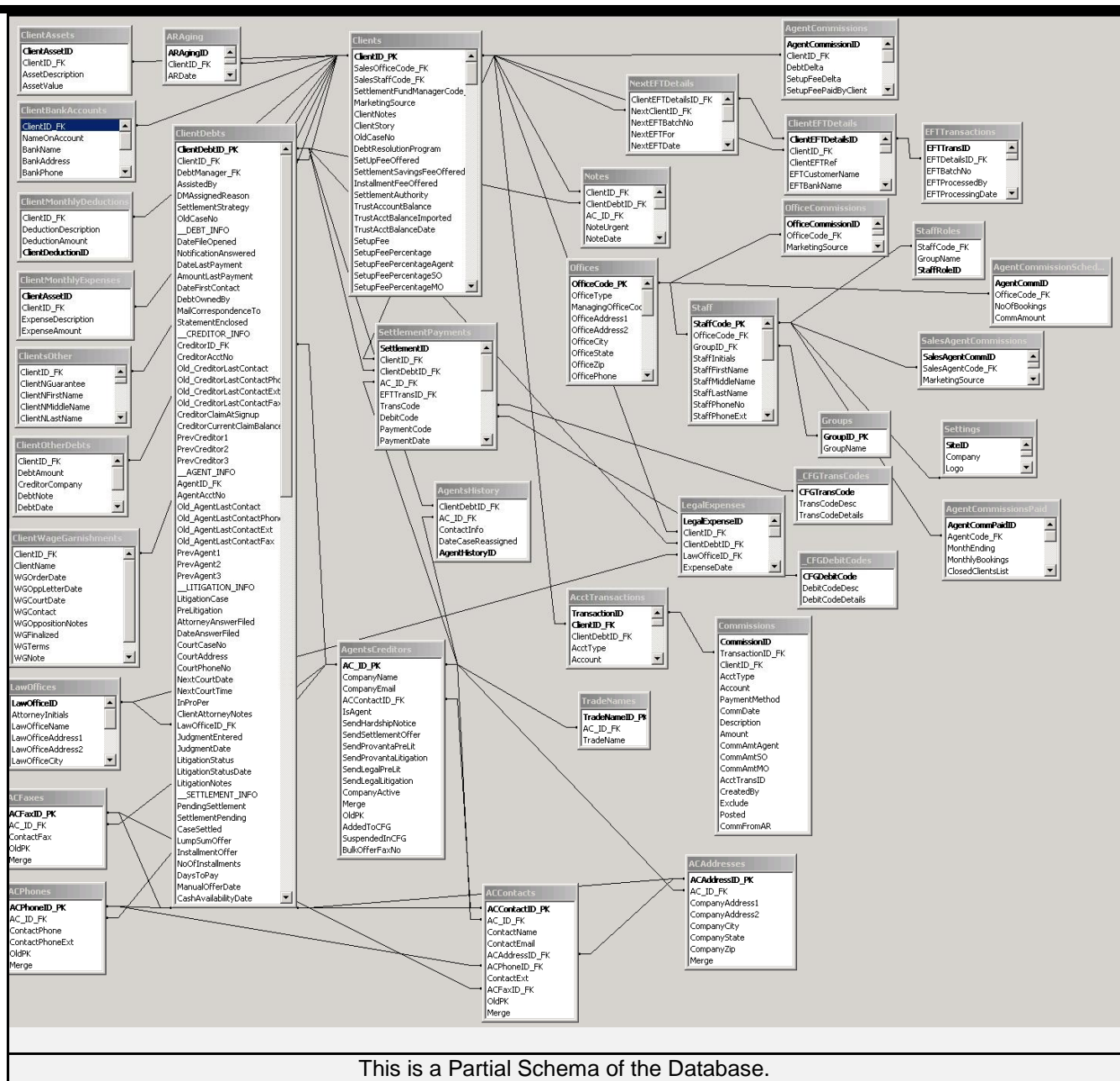
This is the Trust Management tab of the Admin Panel.

Most of these buttons have hundreds of lines of code to import or export CSV, Excel or text files.

The code-behind this form comprises of more than 8,000 lines.

To give one example of the complexity of the processes on this form, this is what happens when button number 3 is clicked:

- The system creates EFTs (electronic funds transfer requests) of all the clients whose EFTs are due.
- It transfers the client data, their EFT details and other fund transfer requests to a secured FTP server.
- It waits for the server to process the FTP request.
- Once that processing is completed, it retrieves the error and log files and examines each record to see what data was not uploaded due to errors in format or content.
- It then marks each successful entry as exported in the database.



## CURRENCY TRANSACTION REPORTING SYSTEM

### Architecture

Front-End: Master-Page/Content Pages using C# in Visual Studio 2008

Back-End: Microsoft SQL Server 2008

Import Data through a File Watcher Service Running on a Network Folder

### System Used For

Gathering and Analyzing Currency Transactions and Reporting Unusual Activities Under Federal Government's CTR010 and CTR020 Regulations

**Main Menu**

- Workflow Status
- Workflow Overview
- Add New Missing CTR/MIL
- CTR Work Reports
- My Queue
- CTR Errors
- Manager
  - Productivity Overview
  - Productivity by Queue
  - Review Missing CTRs/MILs
  - Search Missing CTRs/MILs
  - Reassign Reports
  - Exception Approval Queue
  - Exception Time by Employees
- Database Admin
  - Contact Reasons Codes
  - Database Tools
  - Import CTRs
  - Productivity Thresholds
  - Employees
  - Employee Roles
  - Exception Time Desc Codes
  - Item Description Codes
  - Items Affected Codes
  - Item Status Codes
  - Memo Type Codes
  - QA Review Scores
  - Role Names
  - Role Restrictions
  - UAR Status Codes
- Activity Review
  - UAR Queue
  - Activity Search
  - Activity Report
- Quality Review
  - Quality Reviews Overview
  - Unresolved Review Items
  - My Quality Review Queue
- Exit Application

The Main Menu for the application is created on the fly to restrict access based on each user's role.

### My Queue

#### In Process AU Report

Report Date	AU	Days To Transmission	CTR010 # Items	CTR010 # Held	CTR020 # Items	CTR020 # Held	SEFs Filed	UARs	Status	Status Date	Action
12/09/2008	00006	22	1	0	217	0	0	0	In Process	04/21/2009	Work

#### On Hold AU Report

Report Date	AU	Days To Transmission	CTR010 # Items	CTR010 # Held	CTR020 # Items	CTR020 # Held	SEFs Filed	UARs	Status	Status Date	Action
12/09/2008	00004	22	1	1	1	1	0	0	On Hold - Research	04/21/2009	Work

#### Last 10 Completed AU Reports

Report Date	AU	Days To Transmission	CTR010 # Items	CTR010 # Held	CTR020 # Items	CTR020 # Held	SEFs Filed	UARs	Status	Status Date	Action
12/08/2008	00021	21	0	0	410	0	0	0	Completed	03/25/2009	View
12/08/2008	00019	21	2	0	6	0	0	0	Completed	03/25/2009	View
12/08/2008	00018	21	1	0	222	0	0	0	Moved	03/23/2009	View
12/08/2008	00006	21	1	1	217	215	0	1	Moved	01/21/2009	View
12/08/2008	00006	21	1	1	217	215	0	1	Completed	01/21/2009	View
12/08/2008	00001	21	3	0	3	0	0	1	Completed	01/21/2009	View
12/08/2008	00004	21	1	0	1	0	0	0	Moved	01/21/2009	View
12/08/2008	00004	21	1	0	1	0	0	0	Completed	01/21/2009	View

My Queue displays status of the reports that each user is currently working with.

**Work Report**

Report Date: 12/08/2008 AU: 00019 Transmission Date: 05/20/2009 Report Status: Completed Status Date: 03/25/2009

CTR010: [CTR010 Transaction Search](#) [Beneficiary / Conductor Note Search](#) [Export To Excel](#)

Report Date	Prod Type	Account Number	COID	Tran AU	Tran Type	Tran Amount	Beneficiary	Conductor	Oper	Tran Time	RE Address	Item Desc.	Comment / Error	Memo	Item Status	Status Date	Last Update	Update By
12/08/2008	DDA	00000000000000000024	114	D		\$15,000 000000014	000000014	4	12.10	00000000025	MO				Moved	03/25/2009	03/25/2009	wakhta
12/08/2008	DDA	00000000000000000025	114	D		\$16,050 000000015	000000016	13	19.44	00000000026	MO				Moved	03/25/2009	03/25/2009	wakhta
12/09/2008	DDA	00000000000000000010	114	D		\$11,000 000000014	000000014	4	12.10	00000000010	MO				In Queue	01/21/2009	01/21/2009	System
12/09/2008	DDA	00000000000000000011	114	D		\$16,050 000000015	000000016	13	19.44	00000000011	MO				In Queue	01/21/2009	01/21/2009	System
12/09/2008	DDA	00000000000000000012	114	D		\$5,155 000000017	000000018	03	14.06	00000000012	MO				In Queue	01/21/2009	01/21/2009	System
12/09/2008	DDA	00000000000000000013	114	D		\$475 000000017	000000018	03	14.06	00000000013	MO				In Queue	01/21/2009	01/21/2009	System
12/09/2008	DDA	00000000000000000014	114	D		\$710 000000017	000000018	03	14.06	00000000014	MO				In Queue	01/21/2009	01/21/2009	System
12/09/2008	DDA	00000000000000000015	114	D		\$18,022 000000017	000000018	03	14.04	00000000015	MO				In Queue	01/21/2009	01/21/2009	System

CTR020: [CTR020 Transaction Search](#)[Export To Excel](#)[Cancel](#)

Report Date	Prod Type	Account Number	COID	Tran AU	Tran Type	Tran Amount	Beneficiary	Customer Name	Oper	RE Address	Comment / Error	Memo	UAR Flag	Item Status	Status Date	Last Update	Update By
12/08/2008	DDA	00000000000000000010	114	00019	D		\$11,000 000000014			?RAM-4 00000000010				Moved	03/25/2009	03/25/2009	wakhta
12/08/2008	DDA	00000000000000000011	114	00019	D		\$16,050 000000015			?NDQ-13 00000000011				Moved	03/25/2009	03/25/2009	wakhta
12/08/2008	DDA	00000000000000000012	114	00019	D		\$5,155 000000017			DACR-03 00000000012				Moved	03/25/2009	03/25/2009	wakhta
12/08/2008	DDA	00000000000000000013	114	00019	D		\$475 000000017			DACR-03 00000000013				Moved	03/25/2009	03/25/2009	wakhta
12/08/2008	DDA	00000000000000000014	114	00019	D		\$710 000000017			DACR-03 00000000014				Moved	03/25/2009	03/25/2009	wakhta
12/08/2008	DDA	00000000000000000015	114	00019	D		\$18,022 000000017			DACR-03 00000000015				Deleted	03/25/2009	03/25/2009	wakhta

[Cancel](#)

The Work Report (in View Mode) displays detailed data for each CTR 010 and 020 for review purposes.

**Work Report**

Report Date: 12/09/2008 AU: 00006 Transmission Date: 05/21/2009 Report Status: In Process Status Date: 04/21/2009

CTR010: [CTR010 Transaction Search](#) [Beneficiary / Conductor Note Search](#) [Export To Excel](#)

Report Date	Prod Type	Account Number	COID	Tran AU	Tran Type	Tran Amount	Beneficiary	Conductor	Oper	Tran Time	RE Address	Item Desc.	Comment / Error	C/E Add	Memo	Memo Add	Item Status	Status Date	Last Update	Update By
12/08/2008	DDA	00000000000000000004	114	D		\$12,000			03	00.00	00000000000	UB			Yes		On Hold - Research	01/21/2009	01/21/2009	wakhta
12/09/2008	DDA	00000000000000000004	114	D		\$12,000 000000003	000000004	03	18.21	00000000000	UO	New Comment 3333	View	Add		Add	In Process	04/21/2009	01/21/2009	System
12/10/2008	DDA	00000000000000000004	114	D		\$12,000			03	00.00	00000000000	UB					In Queue	01/21/2009	01/21/2009	System

CTR020: [CTR020 Transaction Search](#)[Export To Excel](#)[Cancel](#)[Submit](#)[Submit & Close](#)

Report Date	Prod Type	Account Number	COID	Tran AU	Tran Type	Tran Amount	Beneficiary	Customer Name	Oper	RE Address	Comment / Error	C/E Add	Memo	Memo Add	UAR Flag	Item Status	Apply Status	Status Date	Last Update	Update By
12/09/2008	DDA	00000000000000000004	114	00006	D	\$6,000 000000003			-003	00000000123		Add		Add	Add	In Process	All	04/21/2009	01/21/2009	System
12/09/2008	DDA	00000000000000000003	114	00012	D	\$6,000 000000003			-014	00000000124		Add		Add		In Process		04/21/2009	01/21/2009	System
12/09/2008	DDA	000000000000000000714	182	00006	D	\$2,781 000000051			-003	00000000125	Error Reported	View		Add	Add	In Process	All	04/21/2009	01/21/2009	System
12/09/2008	DDA	000000000000000000714	182	03953	D	\$146 000000051			-009	00000000126		Add	Yes	View		In Process		04/21/2009	01/21/2009	System
12/09/2008	DDA	000000000000000000714	182	09736	D	\$480 000000051			*****VLT	000000000		Add		Add		In Process		04/21/2009	01/21/2009	System
12/09/2008	DDA	000000000000000000714	182	09736	D	\$1,255 000000051			*****VLT	000000000		Add		Add		In Process		04/21/2009	01/21/2009	System
12/09/2008	DDA	000000000000000000714	182	09736	D	\$1,487 000000051			*****VLT	000000000		Add		Add		In Process		04/21/2009	01/21/2009	System
12/09/2008	DDA	000000000000000000714	182	09736	D	\$580 000000051			*****VLT	000000000		Add		Add		In Process		04/21/2009	01/21/2009	System
12/09/2008	DDA	000000000000000000714	182	09736	D	\$1,141 000000051			*****VLT	000000000		Add		Add		In Process		04/21/2009	01/21/2009	System

The Work Report in (Edit Mode) allows an authorized user to access and create Comments and Memos for each CTR 010 and 020.

**Productivity Overview**

Report Date b/w:

 and [Get Records](#)[Export To Excel](#)[Show Pages](#)

Report Date	Trans. Date	Unmatched Batch	UB Completed	UB Percent	Unmatched Online	UO Completed	UO Percent	Matched Online	MO Completed	MO Percent	CTR020 Accounts	CTR020 Completed	CTR020 Percent	Check Copies	Total Items	Total Completed	Total Percent
12/08/2008	05/20/2009	2	2	100.00 %	1	1	100.00 %	6	5	83.33 %	18	17	94.44 %	2	27	25	92.59 %
12/09/2008	05/21/2009	2	0	0.00 %	1	0	0.00 %	13	0	0.00 %	18	0	0.00 %	2	34	0	0.00 %
12/10/2008	05/22/2009	6	0	0.00 %	0	0	0.00 %	10	0	0.00 %	18	0	0.00 %	2	34	0	0.00 %
Total for 3 reports:		10	2	20.00 %	2	1	50.00 %	29	5	17.24 %	54	17	31.48 %	6	95	25	26.32 %

Productivity Overview is used by managers to track and manage worker productivity for any period.







## Item Description Codes

Item Desc	Abbrev.	Is Active	Inactive Date	Updated	Updated By	Action
		<input checked="" type="checkbox"/>		12/22/2008	System	<a href="#">Edit</a>
Invalid Account	IA	<input checked="" type="checkbox"/>		12/03/2008	wakhta	<a href="#">Edit</a>
Matched Online	MO	<input checked="" type="checkbox"/>		09/02/2008	System	<a href="#">Edit</a>
Online Item Added	OI	<input checked="" type="checkbox"/>		09/02/2008	System	<a href="#">Edit</a>
Unmatched Batch	UB	<input checked="" type="checkbox"/>		09/02/2008	System	<a href="#">Edit</a>
Unmatched Online	UO	<input checked="" type="checkbox"/>		12/03/2008	wakhta	<a href="#">Edit</a>
						<a href="#">New</a>

## Item Description Codes

Item Desc	Abbrev.	Is Active	Inactive Date	Updated	Updated By	Action
		<input checked="" type="checkbox"/>		12/22/2008	System	<a href="#">Edit</a>
Invalid Account	IA	<input checked="" type="checkbox"/>		12/03/2008	wakhta	<a href="#">Edit</a>
<input type="text" value="Matched Online"/>	<input type="text" value="MO"/>	<input checked="" type="checkbox"/>		09/02/2008	System	<a href="#">Update</a> <a href="#">Cancel</a>
Online Item Added	OI	<input checked="" type="checkbox"/>		09/02/2008	System	<a href="#">Edit</a>
Unmatched Batch	UB	<input checked="" type="checkbox"/>		09/02/2008	System	<a href="#">Edit</a>
Unmatched Online	UO	<input checked="" type="checkbox"/>		12/03/2008	wakhta	<a href="#">Edit</a>
						<a href="#">New</a>

Dropdown lists are customizable by a user who does not have the Admin node blocked. In-line editing is provided with data integrity business rules applied when an Update is done. Clicking on the New action creates a 'New Record', which is then modified through the Edit action.

Email To:  Email CC:  [Send in Email](#)

To eliminate a second request to your store, please reply to this email requested information within 24 hours.

To: Store Manager From: Wasim Akhtar  
AU 00006 CTR Consultant  
Phone: (408) 420-7106

RE: The following transaction is missing required information. We are contacting you because your AU was the location where the transaction occurred.

Work Date: 12/8/2008 Teller Number: -003

Transaction Type: CTR

Cash Amount(s): Account Number(s):

Customer(s):

Please provide the following information:  
Conductor (individual presenting transaction)

Name: \_\_\_\_\_  
Identification: \_\_\_\_\_  
Date of Birth: \_\_\_\_\_  
Physical Address  
(City, State, Zip): \_\_\_\_\_  
Tax ID Number: \_\_\_\_\_

Please provide the following information:  
Beneficiary (individual receiving transaction)

Name: \_\_\_\_\_  
Identification: \_\_\_\_\_  
Date of Birth: \_\_\_\_\_  
Physical Address  
(City, State, Zip): \_\_\_\_\_  
Tax ID Number: \_\_\_\_\_

Other Items:  
If the Beneficiary was someone other than the conductor, please provide the above information for them.

User-generated memos are used to create printable memos, as well as emails to be sent to anyone using either an Exchange Server or Outlook.

## CONVERTIBLES TRADING SYSTEM

### Architecture

Front-End: C# in Visual Studio 2005+  
Back-End: Oracle 10g Enterprise Edition  
User Interface: Windows Forms with User Controls

### System Used For

Trading of Convertible Bonds and Stocks in Various Combinations

The screenshot displays the 'MAIN SCREEN' of the 'CONVERTIBLES TRADING SYSTEM'. The interface is divided into several panels:

- MAIN MENU:** Includes buttons for TICKETS, REFRESH, SETTINGS, ADMIN, and CLOSE. The date 08-May-08 is shown.
- BOND NAME:** A dropdown menu showing 'YHOO 0.000 04/01/08'. Below it, the CUSIP is '984332AB2' and a 'NEW' button is present. A 'Refresh Sales Screens' button is also visible.
- MARKET PRICE:** A table showing the last price, stock price, bid, and ask. The last price is 26.640, stock price is 26.648, bid is 130.135, and ask is 130.635.
- LIVE FEED & STOCK INFORMATION:** A panel with two sub-sections: 'LIVE STOCK FEEDS' and 'STOCK INFORMATION'. It displays various metrics like Bid, Ask, Last Price, Change, Market Cap, Shares Out, Volume, and 100-Day Avg. Vol.
- YIELD PREMIUM SCENARIOS:** A panel with tabs for 'Calculate Model', 'Calculate Model (High)', and 'Calculate Model (Low)'. It shows a grid of values for Bond, Stock, Delta, YTM, YLD, YTC, YTP, Premium, Points, Parity, Theo. Price, Theo. Delta, Rich/Cheap, Gamma, Imp. Spread, and Implied Vol.
- COMPANY FUNDAMENTALS:** A panel showing financial data for Cash & Equiv., Total Debt, Net Cash, and Net Debt. It also includes a table for Results for Last FY (Actual), Curr. FY (Est.), and Next FY (Est.) with metrics like EBITDA, Free Cash Flow, Capital Expenditure, Interest Expense, Leverage, Tangible Book Value, and Earnings/Share.
- TRADE MODEL 2:** A panel showing Price (Bid), Stock, Delta, New Shares, Credit Spread, Vol, Rebate, and Div. Yield. It includes a 'Calculate Model' button and a section for 'USE SCENARIO INPUTS' with radio buttons for 'BLACK-SCHOLES MODEL' and 'MERTON MODEL'.
- BOND DESCRIPTION:** A panel with two sub-sections: 'ISSUE' and 'CONVERTIBLE TERMS'. It displays details like Size, Moody's Rating, Ranking/Citd Type, Lead Manager, Issue Date, Issue Price, Conversion Ratio, Conversion Price, Hard Call, H/C Yrs Left, CF to Call, PV CF Diff, Break Even, Provisional Call, Soft Call Trigger, Make Whole Call, Net Shares Settled, and Next Call.

This is one arrangement of six (6) panels that provides details about a bond and its associated stock. All panels are driven by the Bond Name on the top-left corner of the screen. Except for the Bond Name, any panel can be closed, opened, resized or moved in any combination. The Live Feed & Stock Information Panel displays current Bloomberg data for the selected security. Each user's configuration is stored when the application is closed and automatically restored when opened. Users can also create and store any number of screen configurations, and recall them when needed.

Some portions of this system were developed by an off-shore team. Visual Source Safe 2005 was used for source code control. Screenshots of all panels included in this document were developed by Wasim Akhtar. Many tables, procedures, packages, scheduled jobs, etc. for Oracle 10g were also created by Wasim Akhtar.

MAIN SCREEN															06/01/2008 08:55:34				
MAIN MENU TICKETS REFRESH SETTINGS ADMIN CLOSE 28-May-08																			
ORDERS LIST																			
<input type="button" value="New Order"/> <input type="button" value="Copy Order"/> <input checked="" type="checkbox"/> Orders <input type="checkbox"/> Allocations         MTD 05/01/2008 to 06/01/2008 <input type="button" value="Refresh List"/> <input type="button" value="Open Order(s)"/> <input type="button" value="Execute Order(s)"/> <input type="button" value="Allocate Trade(s)"/> <input type="button" value="Trades List"/>																			
ID	Order Status	Conv Alloc'd	Conv Traded	Convert Name	Buy/Sell	Conv Qty	Conv Price	Stock Price	Points Premium	Hedge	Stocks Alloc'd	Stocks Traded	Stock Qty	Stock Ticker	Buy/Sell	Customer Name	Sales Rep	Trader	Order Date
2	Cancel	0%	0%	YHOO 0.000 04/01/08	Buy	1,000	\$122.250	\$28.220	-15.408	75.00	0%	0%	36,600	YHOO	Short	AM Investment Part...	tcullet...	cmaher	05/15/2008
3	Indicate	0%	0%	YHOO 0.000 04/01/08	Sell	1,500	\$122.550	\$28.000	-14.035	75.00	0%	0%	54,900	YHOO	Buy	AQR Capital Manage...	tcullet...	cmaher	05/15/2008
4	Complete	100%	100%	YHOO 0.000 04/01/08	Buy	2,000	\$122.240	\$27.880	-13.760	65.00	100%	100%	63,400	YHOO	Short	FA Asset Management	resposto	cmaher	05/15/2008
6	Complete	100%	100%	YHOO 0.000 04/01/08	Sell	2,000	\$123.140	\$28.550	-16.128	65.00	100%	100%	63,400	YHOO	Buy	Tamapais Asset Ma...	tcullet...	cmaher	05/15/2008
7	Complete	20%	100%	YHOO 0.000 04/01/08	Sell	5,000	\$121.550	\$27.950	-14.791	60.00	7%	100%	146,300	YHOO	Buy	Credit Suisse Asset...	cmaher	cmaher	05/15/2008
8	NotDone	0%	0%	YHOO 0.000 04/01/08	Buy	1,000	\$111.000	\$28.000	-25.585	75.00	0%	0%	36,600	YHOO	Short	ABN AMRO Asset Ma...	cmaher	cmaher	05/15/2008
9	NotDone	0%	0%		Buy	0	\$0.000	\$0.000	0.000	0.00	0%	0%	100,000	YHOO	Short	TWP Convertible Desk	cmaher	cmaher	05/15/2008
10	NotDone	0%	0%	ADM 0.875 02/15/14	Buy	5,000	\$100.000	\$10.000	0.000	65.00	0%	0%	130,000	ADM	Short	ABN AMRO Asset Ma...	cmaher	cmaher	05/15/2008
11	NotDone	0%	0%	YHOO 0.000 04/01/08	Buy	2,000	\$123.240	\$27.880	-12.760	65.00	0%	0%	63,400	YHOO	Short	FA Asset Management	resposto	cmaher	05/15/2008
12	NotDone	0%	0%	YHOO 0.000 04/01/08	Sell	1,500	\$111.000	\$28.000	-20.707	65.00	0%	0%	47,600	YHOO	Buy	Forest Investment...	cmaher	cmaher	05/15/2008
13	NotDone	0%	0%	YHOO 0.000 04/01/08	Buy	1,000	\$122.250	\$28.220	-15.408	75.00	0%	0%	36,600	YHOO	Short	AM Investment Part...	tcullet...	cmaher	05/15/2008
14	Cancel	0%	0%	YHOO 0.000 04/01/08	Sell	1,500	\$122.575	\$28.010	-14.059	75.00	0%	0%	54,900	YHOO	Buy	AQR Capital Manage...	tcullet...	cmaher	05/15/2008
15	Complete	33%	100%	YHOO 0.000 04/01/08	Sell	1,500	\$122.575	\$28.010	-14.059	75.00	33%	100%	54,900	YHOO	Buy	AQR Capital Manage...	tcullet...	cmaher	05/15/2008
21	NotDone	0%	0%	YHOO 0.000 04/01/08	Buy	1,000	\$133.829	\$27.545	-0.537	75.00	0%	0%	36,600	YHOO	Short	AQR Capital Manage...	tcullet...	cmaher	05/15/2008
41	Complete	100%	100%	SNOK 1.000 03/15/35	Buy	2,500	\$103.750	\$30.000	23.259	49.00	100%	100%	32,900	SNOK	Short	Lazard Convertible F...	cmaher	cmaher	05/15/2008
42	Complete	50%	100%	YHOO 0.000 04/01/08	Buy	1,000	\$131.000	\$32.000	-25.097	50.00	50%	100%	24,400	YHOO	Short	Abingworth Biovent...	golou...	cmaher	05/20/2008
43	Complete	100%	100%	YHOO 0.000 04/01/08	Buy	1,000	\$131.000	\$31.000	-20.219	55.00	100%	100%	26,800	YHOO	Short	Argent Financial Gro...	ddykyj	cmaher	05/20/2008
44	Complete	0%	100%	YHOO 0.000 04/01/08	Sell	1,000	\$130.550	\$33.330	-32.035	65.00	0%	100%	31,700	YHOO	Buy	Banque Paribas	resposto	cmaher	05/20/2008
45	NotDone	0%	0%	YHOO 0.000 04/01/08	Buy	1,000	\$133.829	\$27.545	-0.537	75.00	0%	0%	36,600	YHOO	Short	AQR Capital Manage...	tcullet...	cmaher	05/21/2008
61	Complete	0%	100%	MERX 4.000 05/15/13	Buy	3,000	\$0.000	\$2.220	0.000	0.00	0%	0%	0			Ionic Capital Manag...	darcan...	cmaher	05/22/2008

### Orders List Panel

This panel is used for creating, monitoring, executing and allocation of sales orders. Multiple orders, belonging to one book, can be selected and processed simultaneously. The data grid uses Infragistics' UltraWinGrid, which allows users to sort, filter and rearrange columns. Users can view orders, as well as trade allocations, on the same panel.

TRADES LIST																
<div><div><input checked="" type="checkbox"/> Show Averages <input type="checkbox"/> Show Each Print</div><div>MTD 05/01/2008 to 06/01/2008</div><div><div>Refresh List</div><div>View Execution(s)</div><div>Allocate Trade(s)</div></div></div>																
ID	Order Status	Conv Traded	Buy/Sell	Conv Qty	Conv Price	Convert Name	Buy/Sell	Stock Qty	Stock Price	Stock Ticker	Customer Name	Sales Rep	Pad Name	Trade Date	Convert CUSIP	Stock CUS
44	Complete	100%	We Buy	1,000	\$110.796	YHOO 0.000 04/01/08	We Short	31,700	\$27.100	YHOO	Banque Paribas	respo...	Greg O'Loughlin	05/21/2008 07:54:24...	984332AB2	984
61	Complete	100%	We Sell	3,000	\$0.000	MERX 4.000 05/15/13		0	\$0.000		Ionic Capital Management LLC	darca...	Greg O'Loughlin	05/22/2008 13:36:56...	590049AB8	
62	Complete	100%	We Sell	2,000	\$53.250	AMIE 3.750 04/15/27		0	\$0.000		Whippoorwill Associates Inc	cmaher	Greg O'Loughlin	05/22/2008 13:38:14...	023178AA4	
63	Complete	100%	We Buy	2,000	\$52.500	AMIE 3.750 04/15/27		0	\$0.000		Vicis Capital	respo...	Greg O'Loughlin	05/22/2008 14:13:22...	023178AA4	
64	Complete	100%	We Sell	1,000	\$108.512	YHOO 0.000 04/01/08	We Buy	36,600	\$27.320	YHOO	Ionic Capital Management LLC	darca...	Greg O'Loughlin	05/22/2008 10:20:33...	984332AB2	984
65	Complete	100%	We Buy	1,000	\$107.885	YHOO 0.000 04/01/08	We Short	36,600	\$27.310	YHOO	Ionic Capital Management LLC	darca...	Greg O'Loughlin	05/22/2008 10:22:28...	984332AB2	984
67	Complete	100%	We Sell	1,000	(\$0.902)	AMD 5.750 08/15/12	We Buy	27,300	\$7.070	AMD	AM Investment Partners LLC	tcullet...	Greg O'Loughlin	05/22/2008 13:02:50...	007903AN7	007
69	Complete	100%	We Sell	3,000	\$0.000	MERX 4.000 05/15/13		0	\$0.000		Ionic Capital Management LLC	darca...	Greg O'Loughlin	05/22/2008 15:10:39...	590049AB8	
82	Complete	100%	We Sell	5,000	\$54.000	MERX 4.000 05/15/13		0	\$0.000		Highbridge Capital Managem...	cmaher	Greg O'Loughlin	05/27/2008 09:29:03...	590049AB8	
83	Complete	100%	We Sell	2,844	\$111.705	IS15 2.625 02/15/27	We Buy	146,0...	\$12.890	IS15	J.P. Morgan Chase Securities...	tcullet...	Greg O'Loughlin	05/27/2008 09:32:56...	464337AE4	464
84	Complete	100%	We Sell	5,000	\$53.500	AMIE 3.750 04/15/27		0	\$0.000		Whippoorwill Associates Inc	cmaher	Greg O'Loughlin	05/27/2008 09:47:10...	023178AA4	
85	Partial	50%	We Sell	2,500	\$144.082	ABX 2.750 10/15/23	We Buy	92,000	\$40.780	ABX	ABN AMRO Asset Manageme...	cmaher	Darian Dykryj	05/27/2008 09:54:10...	725906AK7	067
86	Complete	100%	We Sell	3,500	\$89.036	CPTS 2.250 02/15/27		0	\$0.000		Citadel Investment Group LLC	cmaher	Greg O'Loughlin	05/27/2008 09:55:31...	206016AA5	
87	Complete	100%	We Sell	5,668	\$137.713	JNPR 0.000 06/15/08	We Buy	281,4...	\$27.720	JNPR	Basso Partners LP	cmaher	Greg O'Loughlin	05/27/2008 10:27:00...	48203RAC8	482
101	Partial	80%	We Sell	4,000	\$76.510	SVYS 3.000 05/15/12	We Buy	11,400	\$17.376	SVYS	J.P. Morgan Chase Securities...	tcullet...	Greg O'Loughlin	05/28/2008 07:58:35...	805423AA8	805
102	Partial	75%	We Sell	3,000	\$53.500	MERX 4.000 05/15/13		0	\$0.000		Highbridge Capital Managem...	cmaher	Greg O'Loughlin	05/28/2008 07:59:38...	590049AB8	
103	Complete	100%	We Sell	5,000	\$53.600	AMIE 3.750 04/15/27		0	\$0.000		Whippoorwill Associates Inc	cmaher	Greg O'Loughlin	05/28/2008 08:00:59...	023178AA4	
104	Complete	100%	We Buy	11,000	\$82.463	ARRS 2.000 11/15/26	We Short	307,6...	\$8.620	ARRS	Citadel Investment Group LLC	cmaher	Greg O'Loughlin	05/28/2008 13:36:23...	04269QAC4	042
105	Partial	83%	We Sell	5,000	\$89.625	CPTS 2.250 02/15/27		0	\$0.000		Citadel Investment Group LLC	cmaher	Greg O'Loughlin	05/28/2008 13:47:27...	206016AA5	
106	Partial	71%	We Buy	5,000	\$83.780	ARRS 2.000 11/15/26	We Short	0	\$0.000	ARRS	Citadel Investment Group LLC	cmaher	Greg O'Loughlin	05/28/2008 13:50:54...	04269QAC4	042
107	Partial	80%	We Buy	4,000	\$82.118	ARRS 2.000 11/15/26	We Short	111,9...	\$8.572	ARRS	Citadel Investment Group LLC	cmaher	Greg O'Loughlin	05/29/2008 06:31:06...	04269QAC4	042
108	Partial	50%	We Sell	1,000	\$82.878	ARRS 2.000 11/15/26	We Buy	28,000	\$8.790	ARRS	Citadel Investment Group LLC	cmaher	Greg O'Loughlin	05/29/2008 09:44:12...	04269QAC4	042

### Trades List Panel

This panel summarizes the execution status of each order. Multiple trades can be opened and processed simultaneously. Users can view details of each trade or order averages on the same panel.

**Order Ticket**

Customer: **ABN AMRO Asset Management-AMSTE** Sales Rep: **cmaher** Customer Initiated: ☒ Instruction Receipt Time: **06/01/2008 12:00:00 AM**

Swap ☐ Market ☐ Limit ☒ 98433 **YH00 0.000 04/01/08** **New Order**

Side: **Convertible** Side: **Stock**

Buy ☐ YH00 0.000 04/01/08 Short ☐ YH00

Quantity (M) Price  
1,000 120.220  
36,600 32.220

Client Hedge Market Hedge Nuke On  
75.00 75.00 Client Hedge

Comm/Share  
0.000

Borrow  
Broker: **ALLEN** Contact: **ALLEN** Size: **36600**

Other Instructions  
Timing: **Day Only** Settlement: **T+ 3** Ex-Clearing: ☐

Destination  
Convertible Desk

Trader: **Chris Maher** Book: **Greg O'Loughlin** **INDO** **Cancel Order** **SAVE** **CANCEL**

### Order Ticket

The Order Ticket can handle Bond and Stock trades in any combination.  
To reduce the possibility of incomplete orders, data verification is done before an order is created.  
Orders are automatically assigned to Trader Books, but the Trader & Book assignments can be over-ridden.

**Execution Ticket**

YH00 0.000 04/01/08 Stock Execution Price: **26.780** **98433AB2** **EXECUTE ALL**

Greg O'Loughlin Before: **11,500 -235,400 41.96** Convert: **Stock** Hedge: **Convertible Desk** After: **11,500 -235,400 41.96**

104 | Complete | Citicel Investment Group LLC | Conv Side: Sell 11000 | Stock Side: Buy 307600

Order No: **64** **IONIC CAPITAL MANAGEMENT LLC** Order No: **65** **IONIC CAPITAL MANAGEMENT LLC**

Side: **Convertible** Side: **Stock**

Buy ☐ YH00 0.000 04/01/08 Short ☐ YH00

Quantity Price  
1,000 111.000  
36,600 28.000

Client Hedge Market Hedge Nuke On  
75.00 75.00 Client Hedge

Traded Leaves Avg Price  
1,000 0 108.512 36,600 0 27.320

We Sell ☐ YH00 0.000 04/01/08 ☐ YH00 ☐ We Buy

EXECUTION INPUT  
Quantity Hedge Price Quantity Price  
0 75.00 108.403 0 26.780

Versus

CREDITS  
Standard Quantity Spread Gross Save Credits  
0 0.000 0.00  
Cross Quantity Points Gross  
0 0.000 0.00  
Extra 0 0.000 0.00  
Total 0 0.000 0.00

### Trade Execution Ticket

The Execution Ticket is designed to process any number of orders at one price.  
Multiple trades of partial quantities can be processed for one order.  
Sales credits can be assigned for each trade.

**Trade Allocations**

104 **CONVERTS** **STOCKS**

Ordered: **We Buy 11,000 We Short 307,600**

Org Alloc: **36% 4,000 0%**

Leaves: **7,000 307,600**

104 | Complete | Citicel Investment Group LLC | Conv Side: Sell 11000 | Stock Side: Buy 307600

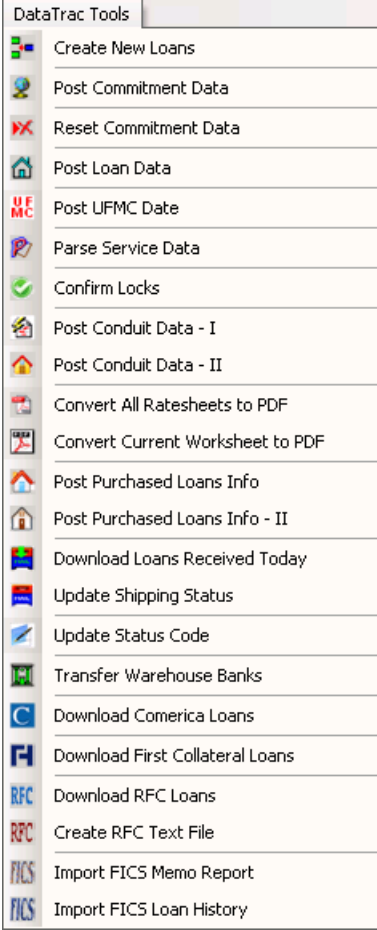
N ☒ **ARRS 2.000 11/15/26** Add Broker **SAVE** **CANCEL**

No. Conv Alloc'd Stocks Alloc'd Account No./ Broker Code Account/ Broker Name Aux Name Short Name CTS Note

No.	Conv Alloc'd	Stocks Alloc'd	Account No./ Broker Code	Account/ Broker Name	Aux Name	Short Name	CTS Note
1	0	0	78001213A	CITADEL INVESTMENT...		CLOSED...	
2	0	0	78001276B	SALOMON SMITH BARN...		CLOSED...	
3	5,500	153,800	78006118B	CITADEL INVESTMENT...		BARCLA...	
4	0	0	78002523A	SALOMON SMITH BARN...		JACKSO...	
5	0	0	78010782A	CITADEL INVESTMENT...		CLOSED...	
6	0	0	78010783A	CITADEL INVESTMENT...		CLOSED...	
7	0	0	78010784A	CITADEL INVESTMENT...		CLOSED...	
8	0	0	78010785B	CITADEL INVESTMENT...		CIT Self C	
9	5,500	153,800	78005397A	LEHMAN BROTHERS INC		JACKSON	
10	0	0	78005398A	LEHMAN BROTHERS INC		CLOSED...	
11	0	0	78010951A	CITADEL INVESTMENT...		JACKSO...	
12	0	0	78003403B	WACHOVIA SECURITIES...			
13	0	0	78019587B	GOLDMAN SACHS & CO		CEOP-SF...	
14	0	0	78019588B	GOLDMAN SACHS & CO		CLOSED...	

### Trade Allocation Panel

Trades will be allocated to any client account in any combination.  
Over allocation is not allowed, but the users can override the automatic blocking mechanism.

DATATRAC TOOLS	
<b>Architecture</b> Front-End: Excel 2003 – Add-Ins Back-End: SQL Server 2005, SQL Server 2000, SQL Express 2005, MySQL	
<b>System Used For</b> Loading into and extracting mortgage data from DataTrac, FICS and Empower It automated updating bulk changes related to Secondary Marketing, and Conduit & Warehouse Management	
	
<p>This is the Main Menu of the system that is created as an add-in in MS-Excel.            The data for uploading is taken from the current worksheet and automatically posted into the target database.            Each tool uses a different template, so the application validates the template before starting the data upload.            Error messages, if any, are posted next to each record.            Any default changes are first verified. The user has the option to skip all default changes.            A copy of the worksheet is stored on the server with the user's name and date/time stamp for tracking.            An entry is made in the transaction log with the name and location of the worksheet used.</p>	



## HEDGE FUND MANAGEMENT SYSTEM

### Architecture

Front-End: Access 2002

Back-End: Access 2002

### System Used For

Managing daily trading and technical analysis of a hedge fund

<b>Trade Type:</b> <input checked="" type="radio"/> Convertibles <input type="radio"/> Stocks <input type="radio"/> Bonds <input type="radio"/> CDS <input type="radio"/> Futures										<b>Quote:</b> <input checked="" type="checkbox"/> Trade <input type="checkbox"/> PSS1																																																						
<b>Broker:</b> Piper Jaffrey US Bancorp										<b>Points:</b> B 0.00 A 0.00																																																						
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>F</th> <th>Security</th> <th>Ticker</th> <th>Bid</th> <th>Ask</th> <th>Quantity</th> </tr> </thead> <tbody> <tr> <td>Converts:</td> <td>CELG 1.75% 06/08</td> <td></td> <td>\$199.9540</td> <td>\$0.0000</td> <td>2,000</td> </tr> <tr> <td>Stocks:</td> <td>CELG</td> <td></td> <td>\$47.0100</td> <td>TYN: 4.000%</td> <td>-77,600</td> </tr> <tr> <td>Straights:</td> <td></td> <td></td> <td>\$0.0000</td> <td>\$0.0000</td> <td>0</td> </tr> </tbody> </table>										F	Security	Ticker	Bid	Ask	Quantity	Converts:	CELG 1.75% 06/08		\$199.9540	\$0.0000	2,000	Stocks:	CELG		\$47.0100	TYN: 4.000%	-77,600	Straights:			\$0.0000	\$0.0000	0	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Straight Bond Spread:</th> <th colspan="2">CDS Spread:</th> <th colspan="2">Futures:</th> </tr> </thead> <tbody> <tr> <td></td> <td>0.0000</td> <td></td> <td>0.0000</td> <td></td> <td>0</td> </tr> <tr> <td></td> <td>0.0000</td> <td></td> <td>0.0000</td> <td></td> <td>0</td> </tr> </tbody> </table>										Straight Bond Spread:		CDS Spread:		Futures:			0.0000		0.0000		0		0.0000		0.0000		0			
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<b>M   S&amp;P   DC:</b> NR   B   B2										<b>Conv.:</b> 25-Oct-04 41.280																																																						
<b>Seniority:</b> Junior										<b>Call:</b> 01-Jun-08 \$100.00																																																						
<b>At-Issue / Price:</b> \$10.00										<b>Prem:</b> 6.0%																																																						
<b>EXECUTE TRADE</b>										<b>Q/T:</b> <input type="checkbox"/> <b>SAVE QUOTE</b>																																																						
<b>Company Name:</b> Celgene										<b>Company Holdings</b>																																																						
<b>Industry:</b> Healthcare										<b>Transaction Date</b>																																																						
<b>Sector:</b>										<b>8/16/2005 9:57:45 AM</b>																																																						
<b>10-Year Treasury:</b> 4.000%										<b>Settlement Date:</b> 8/19/2005																																																						
<b>Holdings Summary</b>										<b>Current Positions</b>																																																						
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<b>Holding</b>										<b>Convertibles</b>																																																						
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<b>Stocks</b>										<b>-299,300</b>																																																						
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**FORMS:** Companies Bonds Stocks CDs Futures Portfolios Clients Broker-Dealers Prime Brokers Comp. Holdings Rates NAV Price

**REPORTS:** Trade Report Prime Broker S/S

**Ref. No:** 3797

**Confirmations:** ☒ Broker-Dealer ☐ Prime Broker

**Created:** 16-Aug-05

**By:** greg

**Staff**

**Record No:** 38352

This is the Quote-Trade Form used by the traders to manage all their trades.

This form provides one user interface for five different types of investments.

It allows hedging of multiple securities into one bin.

It handles multiple portfolios and distributes trades based on the current portfolio transactions.

The access permissions to the various forms and reports are managed through roles.

One user can belong to multiple roles and the system automatically grants him the highest access allowed.

Each form can be restricted to no access, read only or full access.

Each report can be restricted to no access, preview only or full access.

Daily trading transactions are posted to the prime broker via their custom format.

## MEDICAL OFFICE SIMULATION SYSTEM

### Architecture

Front-End: Access 2000

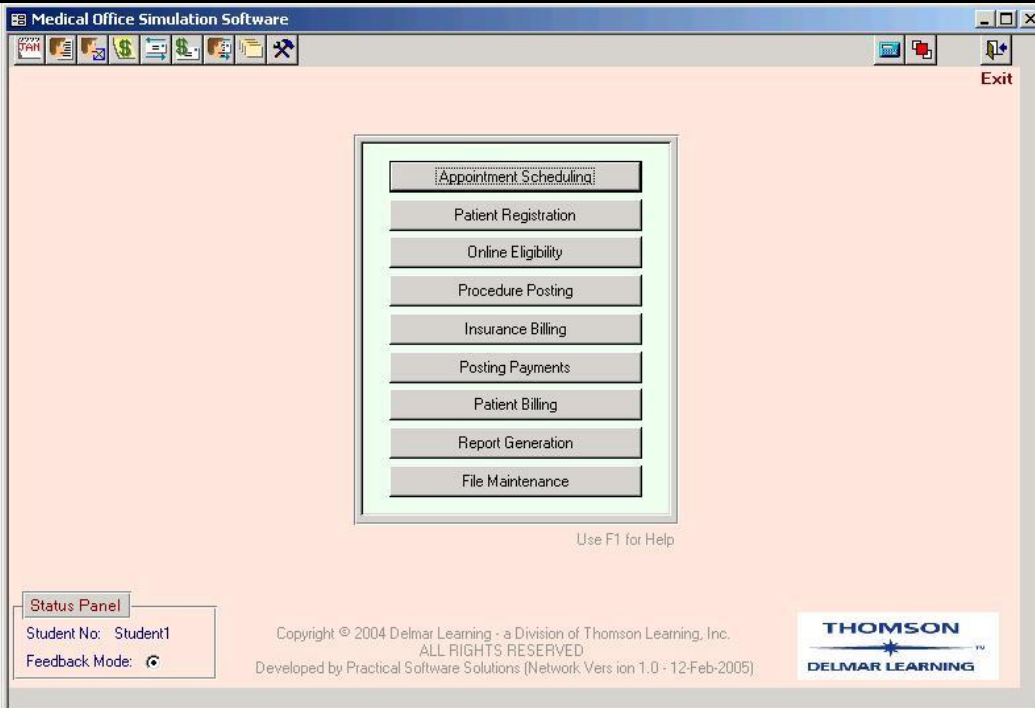
Back-End: Access 2000

### System Used For

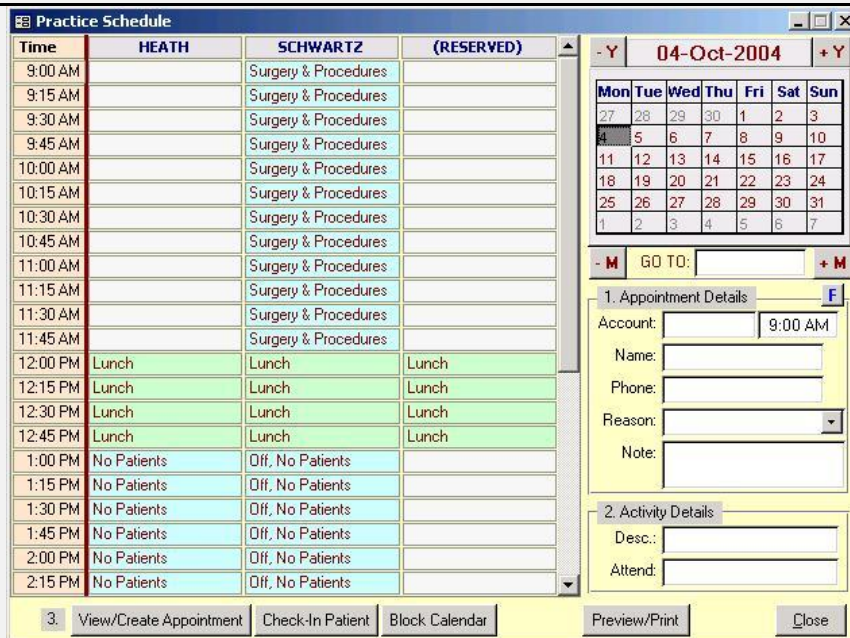
This software has been packaged with a book for teaching medical billing to insurance companies & patients. It provides hands-on simulation of scheduling, billing and payment processing in medical offices.

It uses one code-base to create two different software versions.

The single-user version is distributed with the book and the network-able version is sold to institutes.



The user interface is designed to facilitate learning in a modular and step-by-step fashion.



To provide a realistic experience, features of popular software were adapted and enhanced.

This is the Patient Registration Panel.  
It tracks data about a patient's insurance coverage.  
The system automatically re-bills secondary & tertiary insurance carriers covered through spouses & parents.

The network-able version exposes numerous tools to manage students and classes.  
Through this tool, instructors can load startup/base data for each student.  
Instructors can also modify existing base data for their own exercises and examples.  
Instructors can monitor how much time each student is spending on a particular function.  
Instructors can even turn-off built-in help for each student.



## PATIENT OFFICE ENCOUNTER TRACKER

### Architecture

Workstation Front-End: Access 2000  
 Workstation Back-End: Access 2000  
 Pocket PC 2002 Front-End: Embedded VB 3.0  
 Pocket PC 2002 Back-End: Pocket Access

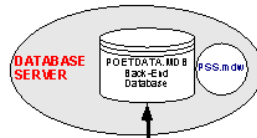
### System Used For

This software has been designed for use by physicians for managing patient visits at clinics and hospitals. The system imports patient's data from servers and passes it to iPAQ handhelds/PDAs. The physicians use the iPAQs to report their findings and order procedures. The data is then exported to the servers for billing purposes. It has an integrated voice-recording tool through which physicians leave instructions for their office staff.

#### File Names:

**POET\_V01.mdb** Front-End Software on Workstations  
**POET.vb** eVB Front-End on PocketPCs  
**POETData.mdb** Back-End Database on Server  
**POETData.cdb** Back-End Database on PocketPCs  
**PSS.mdw** Login Security (optional)  
**Settings.mdb** Settings File on Workstations  
**Settings.cdb** Settings File on PocketPCs

**D\*.txt** Input File - Referring Physician  
**P\*.txt** Input File - Patient Data  
**C\*.txt** Output File - Case Data  
 \* = doctorcodeyyyyymmdd



#### Features:

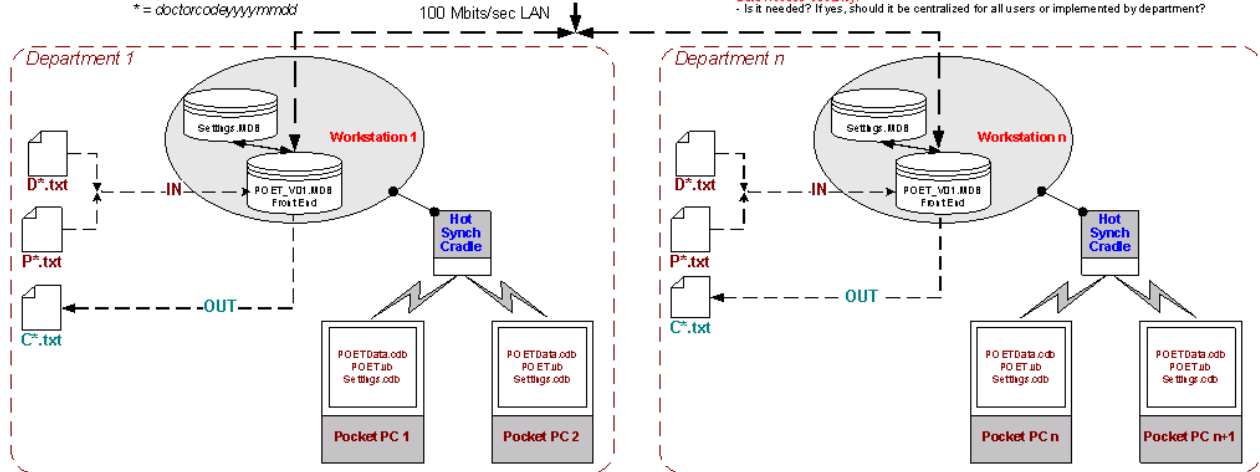
- One central database back-end for each site (POETDATA.mdb)
- Each workstation will have its own settings file (Settings.mdb) and the front-end (POET\_V01.mdb)
- Each PocketPC will have its own settings file (Settings.cdb) and the front-end (POET.vb)
- Two-way data synchronization between workstations and PocketPCs
- Flexible architecture that can be modified to use a SQL Server back-end or use data replication

#### Advantages:

- No data latency
  - Flexible design as any user could import or export data for all departments. Or, each department's users could be restricted to working with their own data only.
- Disadvantages:**
- Significant dependence on network for performance and reliability
  - Requires more knowledgeable system and network administration
  - Poor network resources could result in back-end database corruption which would require system admin or operator intervention to repair the back-end database

#### Data Access Security:

- Is it needed? If yes, should it be centralized for all users or implemented by department?



### System Architecture Overview

Patient List					
Date	Time	Last Name	F..	Appt	
4/15/01	10:00A	awad	s	62	
4/15/01	06:00P	Kanaan	H	20	
4/15/01	06:30P	Habib	S		
4/15/02	09:30A	VIRGINA	L		
4/15/02	10:00A	awad	s	62	
4/15/02	10:30A	HEATHER	M	62	
4/15/02	11:00A	HEIDI	N		
4/15/02	04:30P	HEIDI	N	39	
4/15/02	05:30P	SUSAN	Y	53	
4/15/02	06:00P	Kanaan	H	20	
4/15/02	06:30P	Habib	S		
4/16/01	09:30A	awad	s	53	
4/16/01	05:30P	Kanaan	H	41	
4/16/02	09:30A	awad	s	53	
4/16/02	10:30A	Habib	S	39	

Appointment List

JENNIFER, MCBEE		4:12	ok
First Name:	MCBEE	MI:	L
Last Name:	JENNIFER		
Address:	356 CORK ELM CT		
Address:			
City:	SEVERN		
State:	MD	Inactive	
Zip Code:	21144	Record Message	
Birth Date:	4/10/81	Playback Message	
SSN:	000-00-0000		
Settings	History	Other	Visits
Save		Cancel	

Patient Information

Patient Diagnosis	
Patient History	
Voice Message Panel	

These are only some of the systems that I have recently developed. Please see the List of Recent Projects for a more comprehensive listing of my current projects.

FOR MORE INFORMATION PLEASE CONTACT:

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 Software786@hotmail.com  
 408-420-7106