CONSULTING Songer

Cross-platform computer support and data management solutions

114 Ambling Way
Louisville, KY 40243
502.254.3371
bsonger@songerconsulting.net

Introducing FileMaker Pro

FileMaker

Agenda

- What’s a database?
- What’s been used in the past?
- What’s available today?
- What’s so great about FileMaker?

This is a database?

- It contains information
- It’s not well organized
- It isn’t user-friendly
- It’s pretty ugly
- It isn’t digitized
- It’s difficult to query
- Generating a report is nearly impossible

What's a database

- A container
- Multiple records
- Similar types of information

A database is a method of organizing and analyzing information

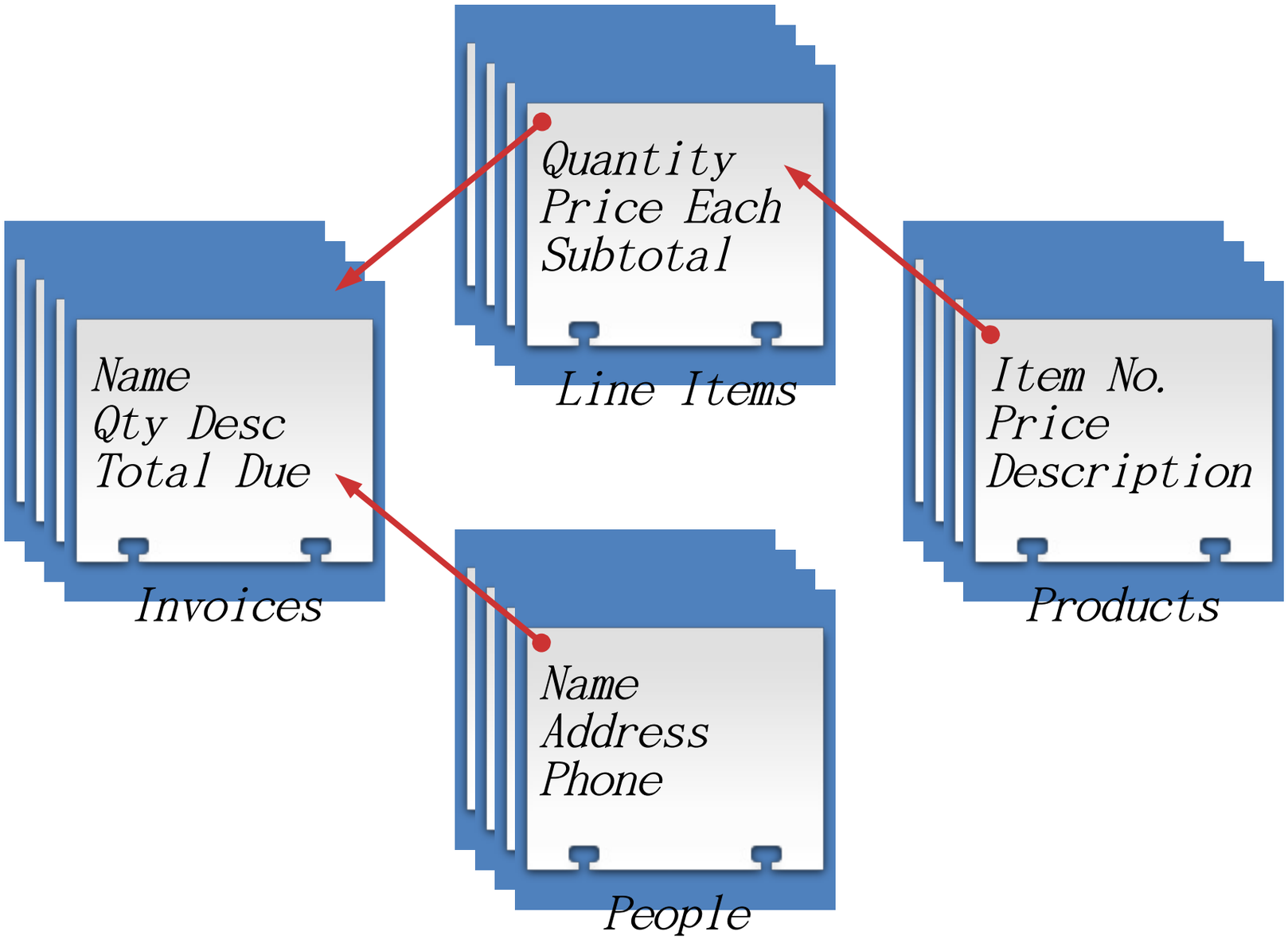
What's a database

- Card catalog at library
- Recipes in a book in kitchen
- Business cards on a desk

What's a database

- Flat-file - one data table, like a computer worksheet
- Relational - data tables related in some manner

What's a database



A system of databases helps you integrate all this information so you stay organized, efficient, productive, and profitable.

A database helps you more organized and productive.

The Past - c. 1987

- PFS File
- dBase III
- AppleWorks
- FoxBase
- FileMaker

- Flat - DOS, Apple II
- Relational - DOS
- Flat - Apple II or Mac
- Relational - Early Mac
- Win, Mac only

Today

- Microsoft Access
  - Windows, difficult
- Bento by FileMaker
  - Mac, easy
- SQL (many flavors)
  - X-platform, no GUI
  - Support intense, $$
- Oracle or Sybase
  - X- platform, GUI, scalable, $
- FileMaker Pro

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Why a Database

- *Instead of a Spreadsheet*

FileMaker

Comparison

Since both spreadsheets and databases have tables, why should I use the latter?

Reference Point	Excel	FileMaker
Numbers, labels, calculations, etc	✓	✓
Data integrity		✓
Form and report views		✓
Data saved record by record		✓
Multiuser aware		✓
Sharing, personal or server		✓
Web accessible		✓

Going Deeper

Reference Point	Spreadsheet	Database
Use of memory	Data and calculations are RAM resident, if a file is not saved data is lost if power is lost to the computer.	Uses both RAM and hard drive memory, with most databases data is saved to the hard disk as soon as a the user leaves the record.
Organization of Data	Data cells are independent, formulas can specify specific cells by name. Formulas access one cell at a time.	Data is organized by fields or records. Formulas or queries work on specified fields in a record, or on selected fields for all specified records.
Calculations	Fast Setup is easy Wide selection of financial and statistical functions	Usual calculations for data such as basic arithmetic. Custom calculations may be created in which results are by text, number, date, plus other types supported.

Going Deeper

Reference Point	Spreadsheet	Database
Charts	Wide choice of charts and graphs. Easy to setup and easy to change.	Data can be exported to spreadsheet to do a chart.
Reports	WYSIWYG, prints tables as are. It is possible to link multiple spreadsheets, but databases make this far easier.	A report does not need to look like the table, each field can be placed anywhere on the form, and used multiple times. It is easy to combine data from more than one table into one report.

Going Deeper

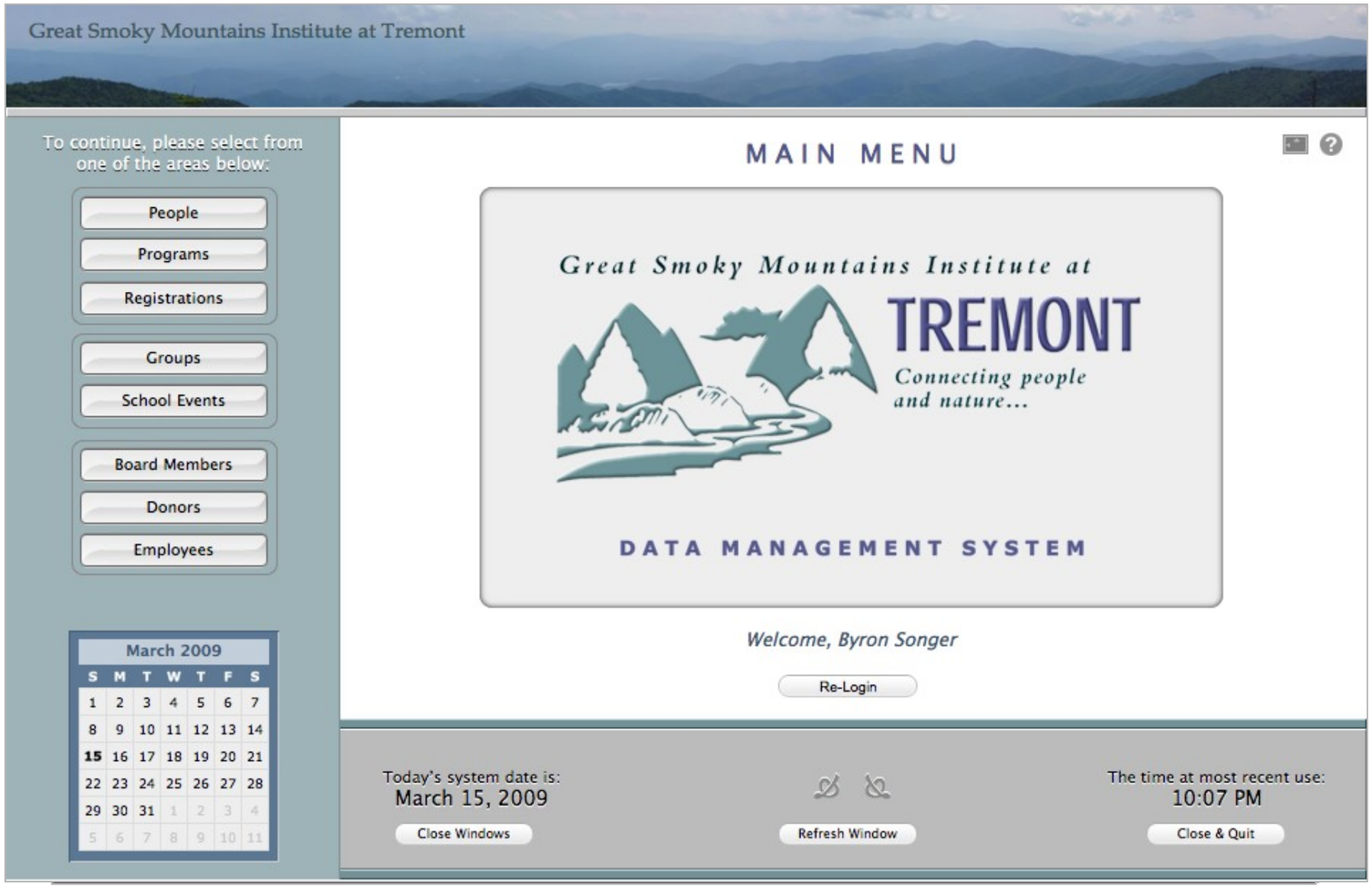
Reference Point	Spreadsheet	Database
Data Entry	Has limited ability to design forms and create “look up” tables. (A look up table provides options from which the data enterer can select.). Not as easily done, or as flexible in this area as a database. Some validity checks possible.	Possess excellent ability to design special forms that show only fields needed and include instructions on how to enter the data. Can also contain read only fields. Forms can show only one record, or multiple records. Can also contain fields from more than one table. It is easy to provide validity checks on data to prevent some erroneous data by using look-up tables, drop down menus and other data validation features.
Programming Languages	Terse - hard to document and hard to read Hard to debug Suitable for short subroutines or macros	Full featured programming language with excellent documentation and debugging capabilities.

Going Deeper

Reference Point	Spreadsheet	Database
Queries	Limited queries especially for multiple tables.	Can perform very complex data queries on one or multiple tables. Can use set theory.
Relational Tables	Can link spreadsheets, but has more limitations.	Links many different tables easily so appear to user as one table. Very useful in transforming complex data.

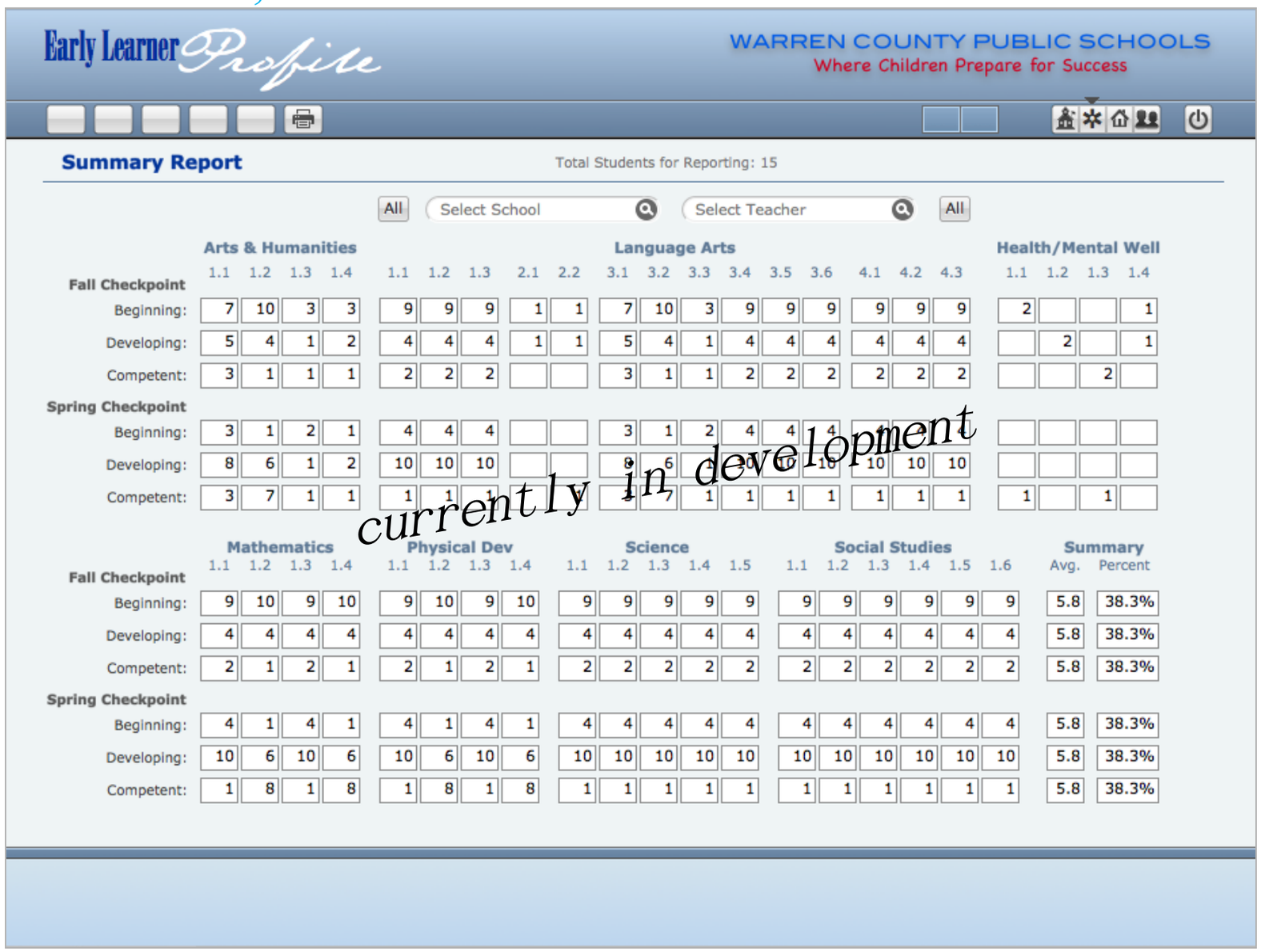
Some Examples

People, registrations, events, giving, employee, and board. 267 layouts,18 tables, 816 fields, tabbed and color-coordinated interface, menu for launching modules, secure login by account.



Some Examples

Preschool evaluation, state standards. 64 layouts, 5 tables, 912 fields, 125 scripts, faux-tabbed interface, secure login by account, management and user levels, server-based, web enabled.



Some Examples

Genealogy solution. One table with 31 fields, 9 layouts. Self-relationship. Compatible with Instant Web Publishing. Family group report.

Family Group Sheet

Name	**Byron Neal Songer**	
Birth	4-16-1947	Mt. Vernon, Jefferson, IL
Death		
Burial Place		
Father	Hubert Daniel Songer --- b. 5-19-1911; d. 11-11-1994	
Mother	Mildred Jeneve Ivers --- b. 12-1-1910; d. 4-14-2004	

Photo

Marriage(s)

Spouse I	Linda Kay Stahl	
Birth	1-17-1948	Eldorado, Saline, IL
Death		
Marriage	6-12-1969	Fairfield, Wayne, IL
Spouse II	Martha Naomi Shealy	
Birth	11-2-1956	Athens, Clarke Co., GA
Death		
Marriage	4-9-2004	Louisville, Jefferson, KY

Children

Name	Jeremy Neal Songer		Male
Birth	5-21-1974	Bowling Green, Warren, KY	
Death			

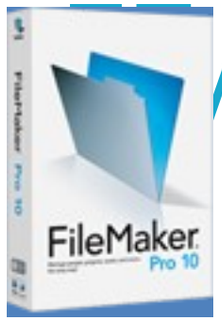
Notes

Born in Good Samaritan Hospital, grew up and attended elementary and secondary schools in Fairfield, graduated from Oakland City College (Indiana) and Southern Baptist Theological Seminary. Served in church positions (15 years), under contract and employed by Apple Education (15 years).

In Review

- Spreadsheets are for numbers – databases are for managing information
- Personal use or business deployment
- OS-specific or cross-platform
- Steep learning curve or ease-of-use with room to grow

With FileMaker Pro



- *Manage people, projects, assets and more –*
  the easy way!

- Helps anyone with any type of task get things done quickly.
- Mac or Windows user – you can create and share information through a network, over the web, or in popular formats such as PDF.
- Rely on FileMaker Pro to effortlessly manage and share information.

et Started Quickly

- *With the award-winning ease of use built into every aspect of FileMaker Pro 10, installation and setup takes just a matter of minutes.*
  - *Drag and drop Microsoft Excel spreadsheets into FileMaker Pro to create databases instantly.*
  - *Learn how to use FileMaker Pro with the new "See it - Use it - Learn it" Quick Start Screen.*
  - *Choose from 30 ready-to-use Starter Solutions and 25 themes to create*

Reporting Made Easy

- *Comes complete with step-by-step reporting tools that help you (and your colleagues) make sense of all your data and automate those repetitive tasks.*
  - *Create reports in minutes showing summaries, sub-summaries, grand totals, etc.*
  - *Tools to help you create database reports with information from back-end systems such as SQL Server, Oracle, or MySQL.*
  - *Publish your reports in popular formats*

Share in a Few Clicks

- *Safely share FileMaker Pro 10 databases with both Windows and Mac users. Plus, control what data you let other people see - right down to a specific field.*
  - *Share your database with other FileMaker Pro users simultaneously through computers connected to a network.*
  - *Publish information to the web and collaborate with colleagues.*
  - *Create live two-way connections with external SQL data sources*

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Getting Started with FileMaker Pro

-
-

FileMaker

Four Methods

- Start from scratch
- FMP-supplied Starter Solution
- Developer
- Excel conversion (assumes use of normalized data)
  - Rows to records
  - Columns to fields

Scratch

- Longest and hardest way
- Yields exact results, e.g., you get what you want
- Most expensive in terms of your time
- Example – a simple database to track items

Starter Solutions

- Pre-made templates from FileMaker
- Quick, ready-to-go databases with appropriate design elements
- You supply the data,
- Can be freely edited - all design aspects
  - Change field names
  - Modify scripts
  - Add layouts
  - Get creative

Developer

- The task is beyond your level for developing an integrated database solution
- You “spec” the requirements, let the developer create/maintain/upgrade
- Custom, run-time solutions; no FMP license required

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Database Concepts

- *Understanding the Essentials Leads to Success*

FileMaker

Table

- Standalone table
- Multiple tables relate to each other
- The table defines the structure of what will be stored, the pieces of data you need to track

First Name	Last Name	Street	City	State	Postal

Record

- Unique instance of information
- Collected data defines the record, a single entity
- In a spreadsheet, a row under the column headers.

Byron	Songer	114 Ambling Way	Louisville	KY	40254

Field

- A particular piece of data
- Data may be by type (text, number, date, time, container (for multimedia), calculation, summary)
- In a spreadsheet, a field is a cell

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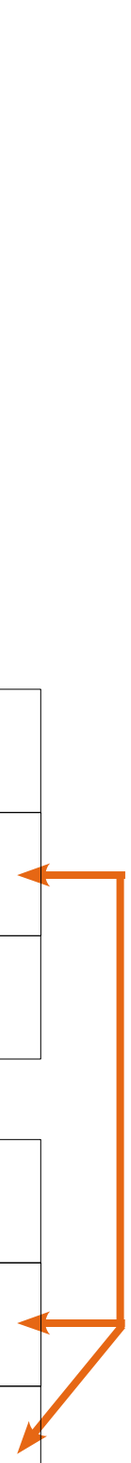
Graphical Review

- *A database consists of –*
  - *Fields*
  - *Records*
  - *Tables*

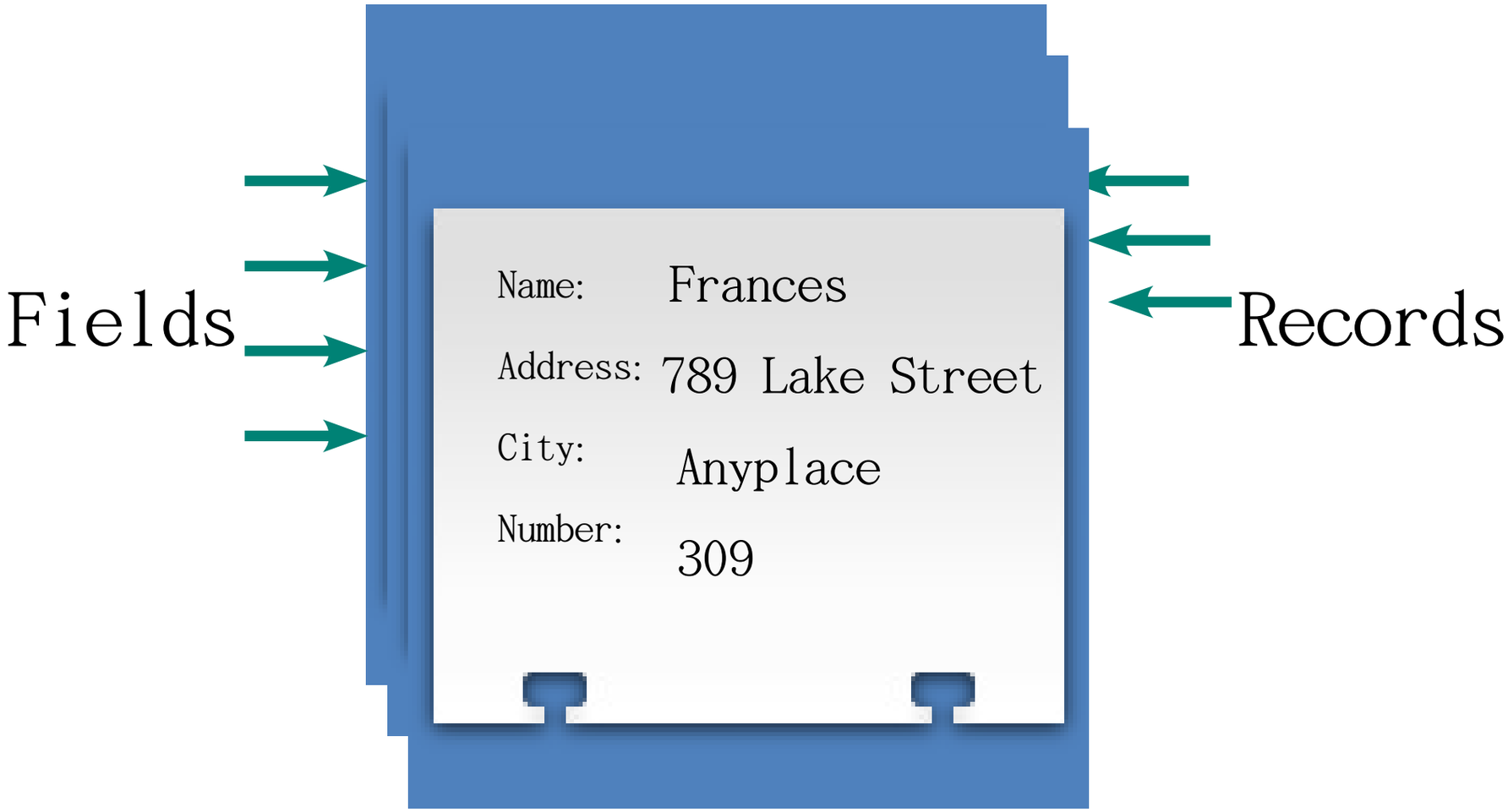
PEO Table	First Name	Last Name
PEO 001	Byron	Songer
PEO 002	Martha	Songer

TEL Table	Number	Type
TEL 001	254-3371	Office
TEL 002	558-8219	Mobile



Database Example

- *From the aspect of icons*



Database Examples

Address Book

iCal

iPhoto

iTunes

Each application helps with managing the data of your life

FAQ - 1

- *What is a database?*
  - *A database is a method of organizing and analyzing information.*
- *Why use a database?*
  - *A database doesn't just hold information—it helps you organize and analyze the information in different ways.*

FAQ - 2

- *How is a database organized?*
  - *A database file is organized into one or more tables. Tables store records. Each record is a collection of fields.*
- *How is field data displayed?*
  - *Fields are displayed on layouts. Each layout is based on a single table, and displays records from that table*

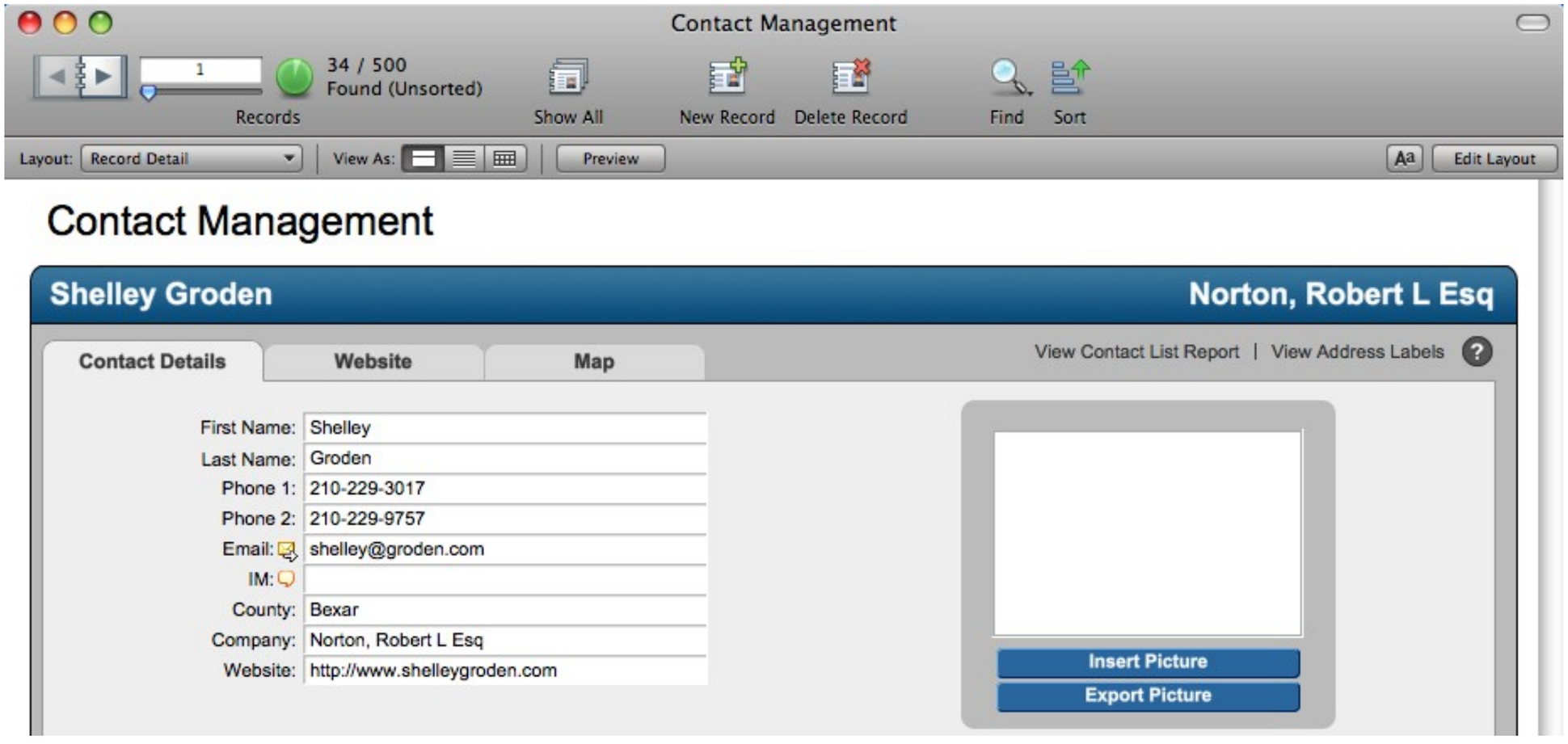
FAQ - 3

- *FileMaker Pro basics*
  - *FMP is a cross-platform application. Files created on a Mac can be opened in Windows, and vice versa.*
  - *FMP saves your work automatically. So, carefully consider your actions, especially when deleting records. Once deleted, they are*

FAQ - 4

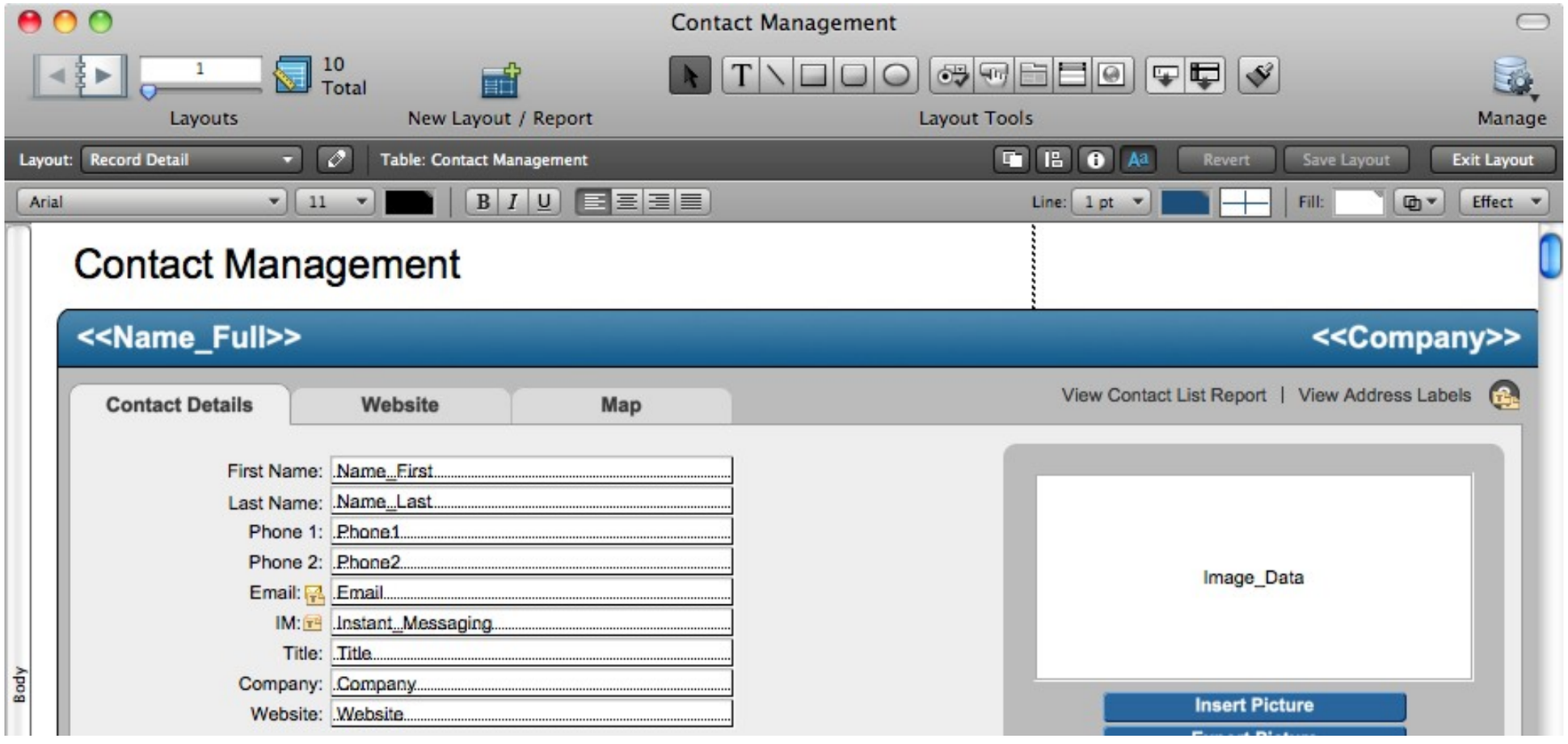
- *When you work in FileMaker Pro, you work in one of four modes.*
  - *Browse – enter data and view records.*
  - *Find – locate a record or a group of records quickly.*
  - *Layout – design how information will appear on screen or for printing.*
  - *Preview – see how pages will*

Status Toolbar



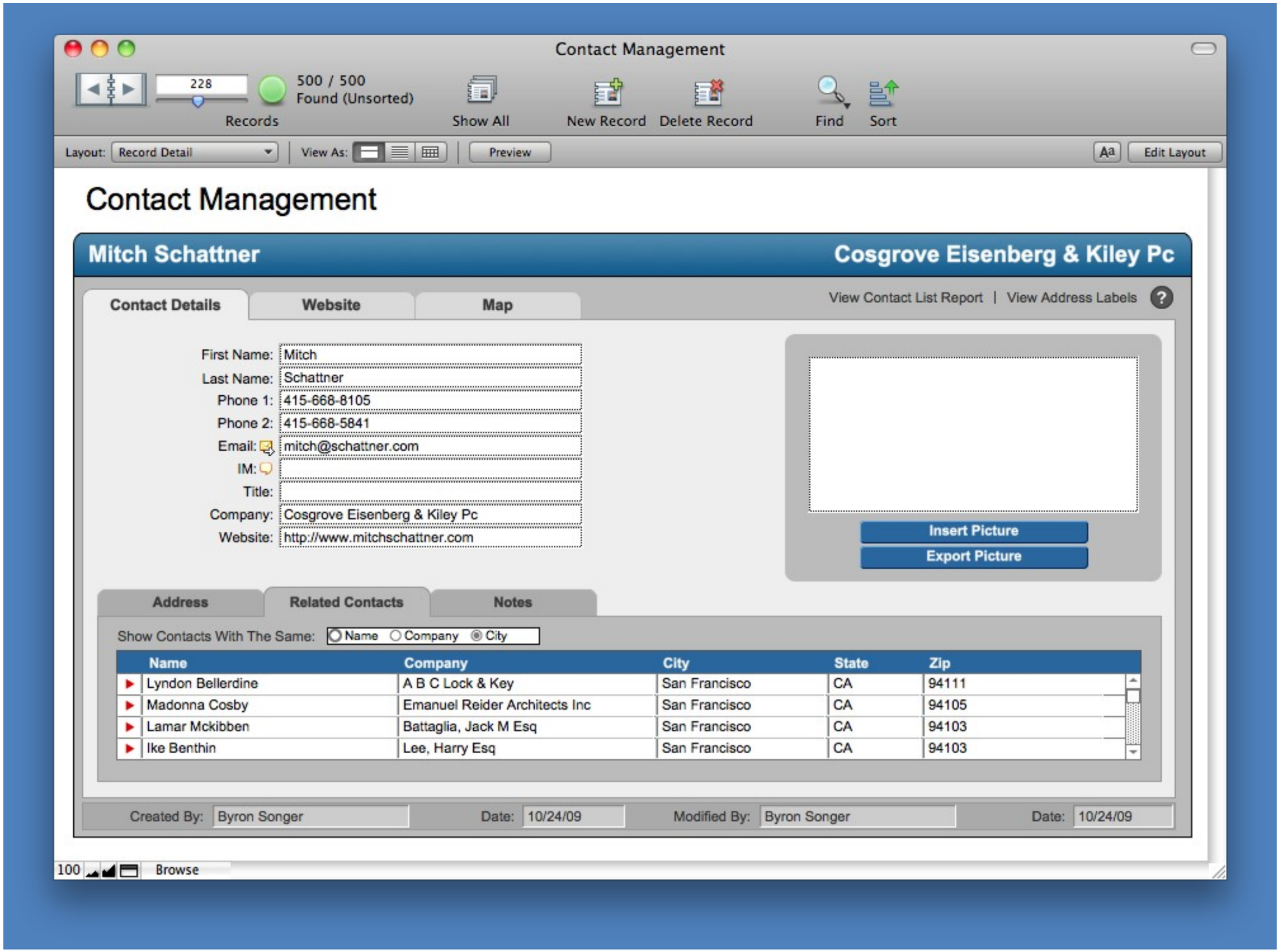
- Commonly used features at your fingertips with the redesigned interface. – *Browse Mode*

Status Toolbar



- Commonly used features at your fingertips with the redesigned interface. – *Layout Mode*

Form View


Contact Management
228
Records
500 / 500
Found (Unsorted)
Show All
New Record
Delete Record
Find
Sort
Layout: Record Detail
View As:
Preview
Edit Layout
Contact Management
Mitch Schattner
Cosgrove Eisenberg & Kiley Pc
Contact Details
Website
Map
View Contact List Report | View Address Labels
First Name: Mitch
Last Name: Schattner
Phone 1: 415-668-8105
Phone 2: 415-668-5841
Email: mitch@schattner.com
IM:
Title:
Company: Cosgrove Eisenberg & Kiley Pc
Website: http://www.mitchschattner.com
Insert Picture
Export Picture
Address
Related Contacts
Notes
Show Contacts With The Same: Name Company City
Name
Company
City
State
Zip
Lyndon Bellerdine
A B C Lock & Key
San Francisco
CA
94111
Madonna Cosby
Emanuel Reider Architects Inc
San Francisco
CA
94105
Lamar Mckibben
Battaglia, Jack M Esq
San Francisco
CA
94103
Ike Benthin
Lee, Harry Esq
San Francisco
CA
94103
Created By: Byron Songer
Date: 10/24/09
Modified By: Byron Songer
Date: 10/24/09
100
Browse

List View

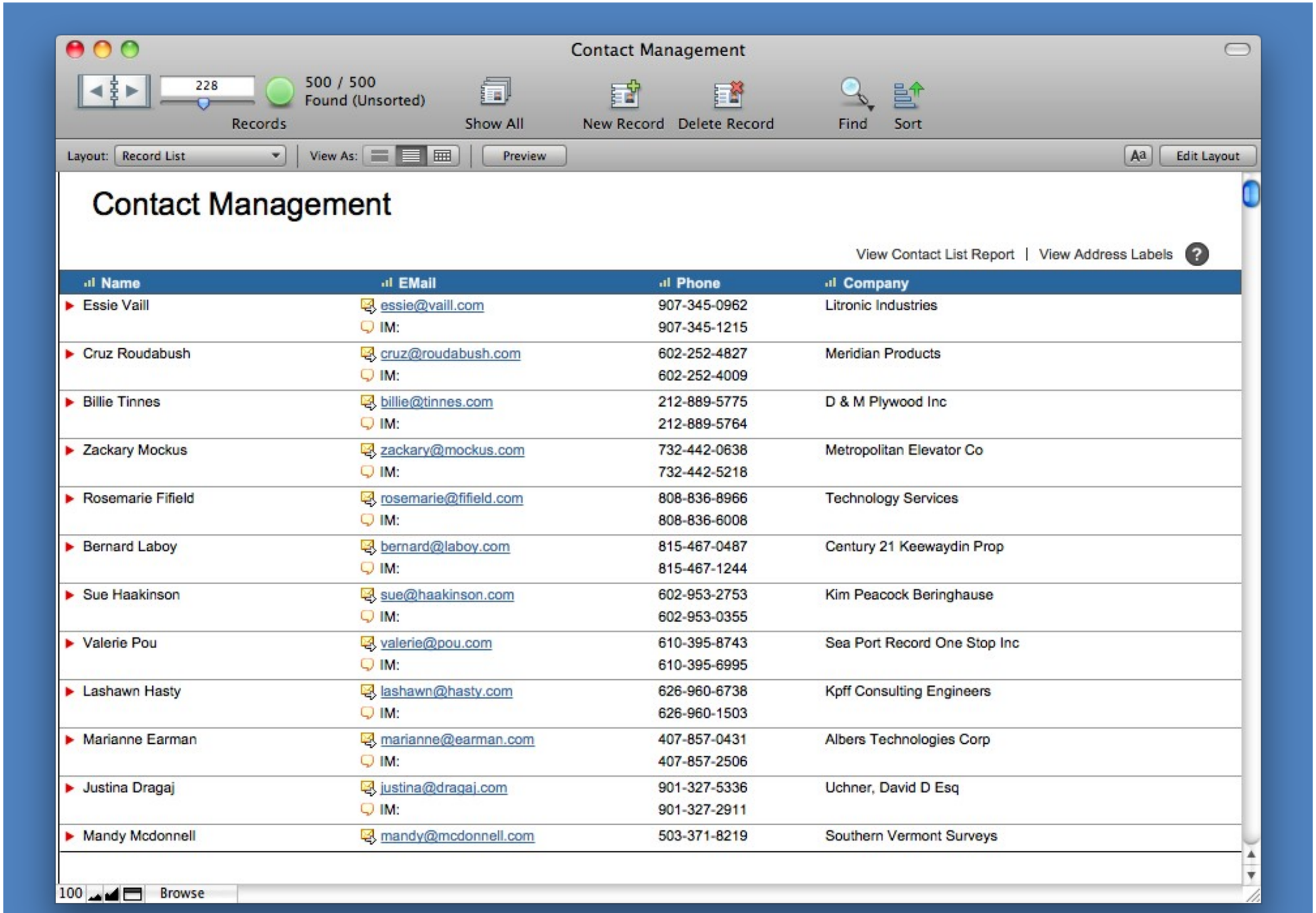
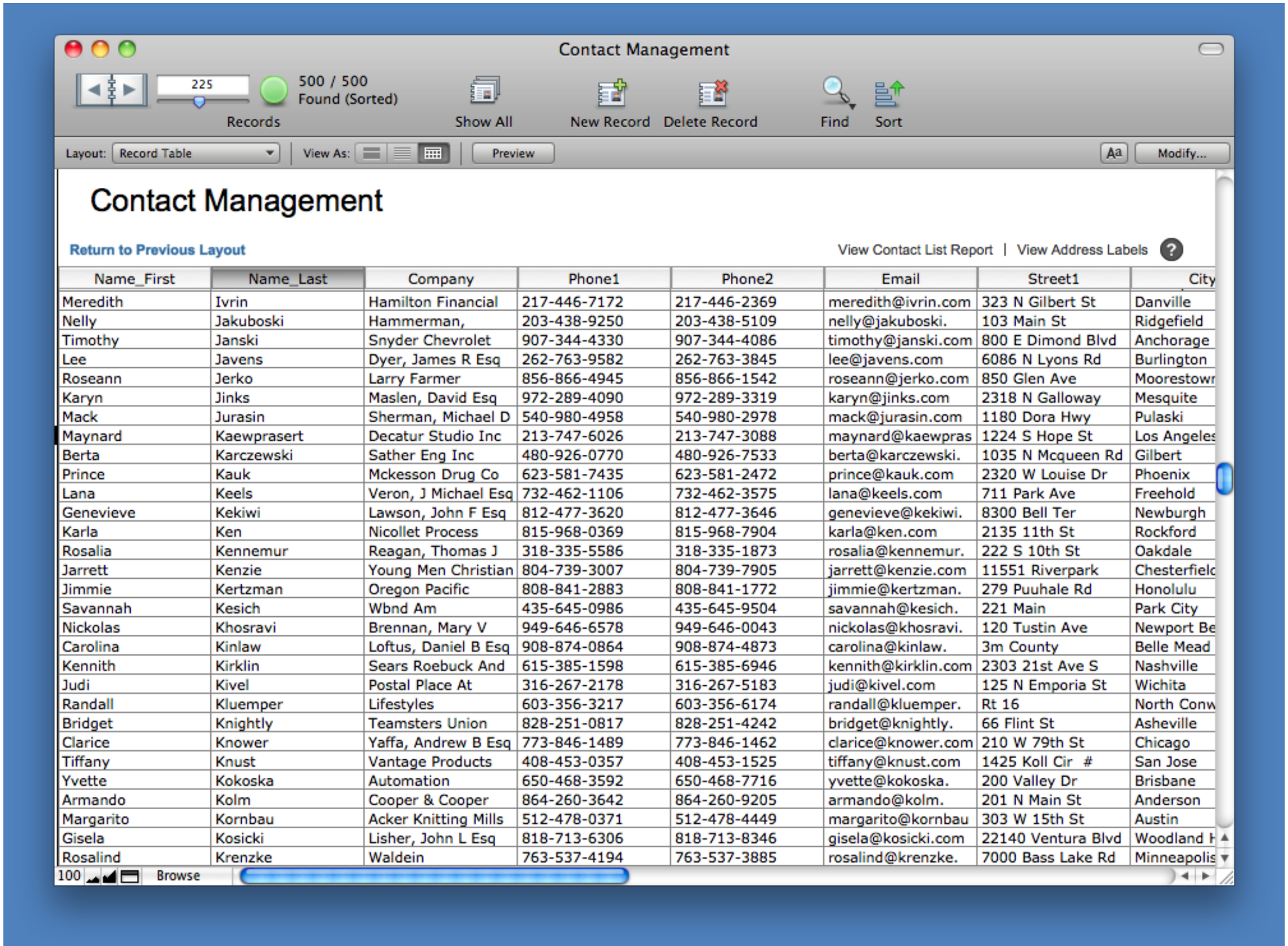
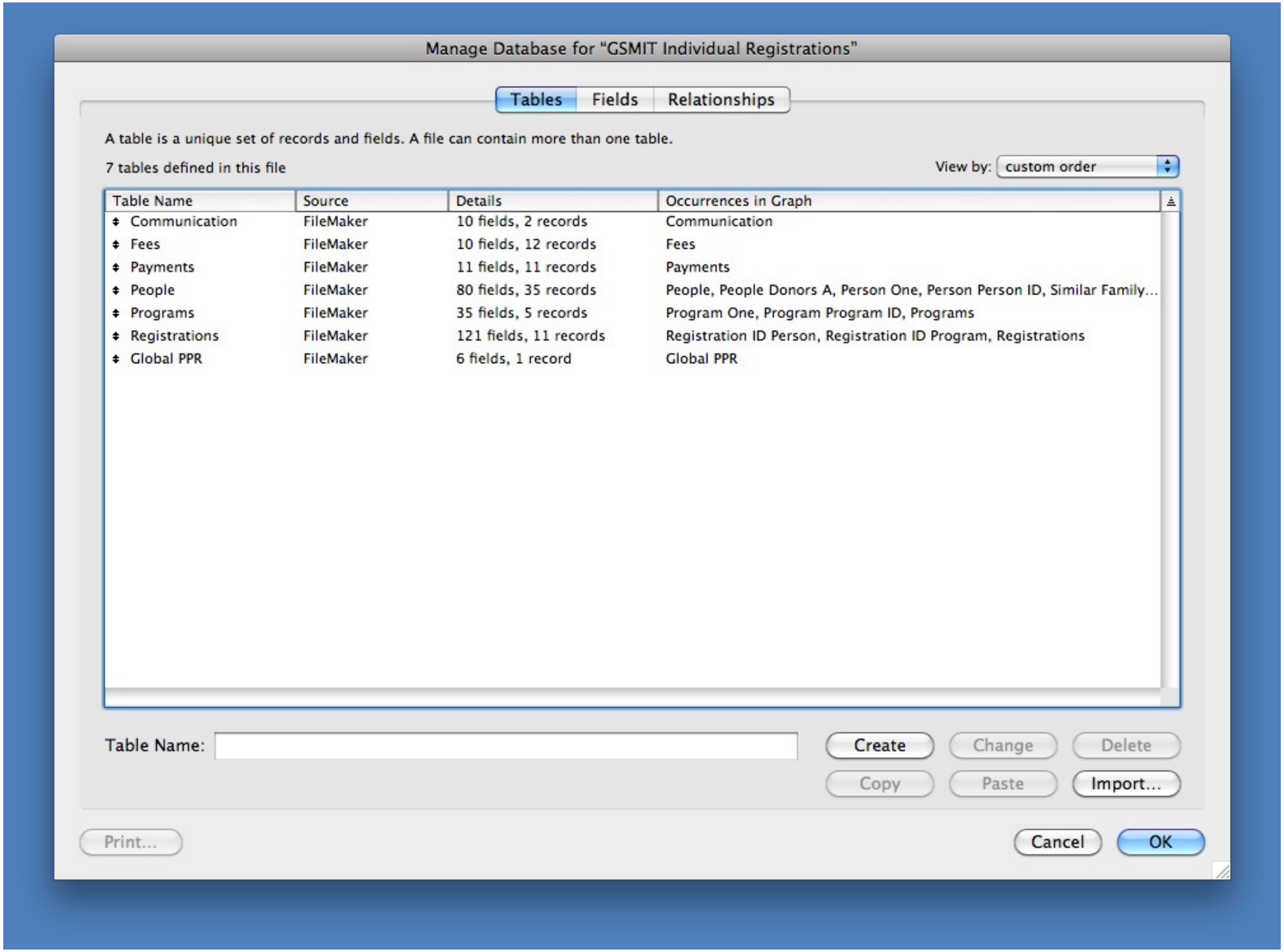

Contact Management
228
Records
500 / 500
Found (Unsorted)
Show All
New Record
Delete Record
Find
Sort
Layout: Record List
View As:
Preview
Edit Layout
Contact Management
View Contact List Report | View Address Labels
Name
EMail
Phone
Company
Essie Vaill
essie@vaill.com
IM:
907-345-0962
907-345-1215
Litronic Industries
Cruz Roudabush
cruz@roudabush.com
IM:
602-252-4827
602-252-4009
Meridian Products
Billie Tinnes
billie@tinnes.com
IM:
212-889-5775
212-889-5764
D & M Plywood Inc
Zackary Mockus
zackary@mockus.com
IM:
732-442-0638
732-442-5218
Metropolitan Elevator Co
Rosemarie Fifield
rosemarie@fifield.com
IM:
808-836-8966
808-836-6008
Technology Services
Bernard Laboy
bernard@laboy.com
IM:
815-467-0487
815-467-1244
Century 21 Keewaydin Prop
Sue Haakinson
sue@haakinson.com
IM:
602-953-2753
602-953-0355
Kim Peacock Beringhause
Valerie Pou
valerie@pou.com
IM:
610-395-8743
610-395-6995
Sea Port Record One Stop Inc
Lashawn Hasty
lashawn@hasty.com
IM:
626-960-6738
626-960-1503
Kpff Consulting Engineers
Marianne Earman
marianne@earman.com
IM:
407-857-0431
407-857-2506
Albers Technologies Corp
Justina Dragaj
justina@dragaj.com
IM:
901-327-5336
901-327-2911
Uchner, David D Esq
Mandy Mcdonnell
mandy@mcdonnell.com
503-371-8219
Southern Vermont Surveys
100
Browse

Table View

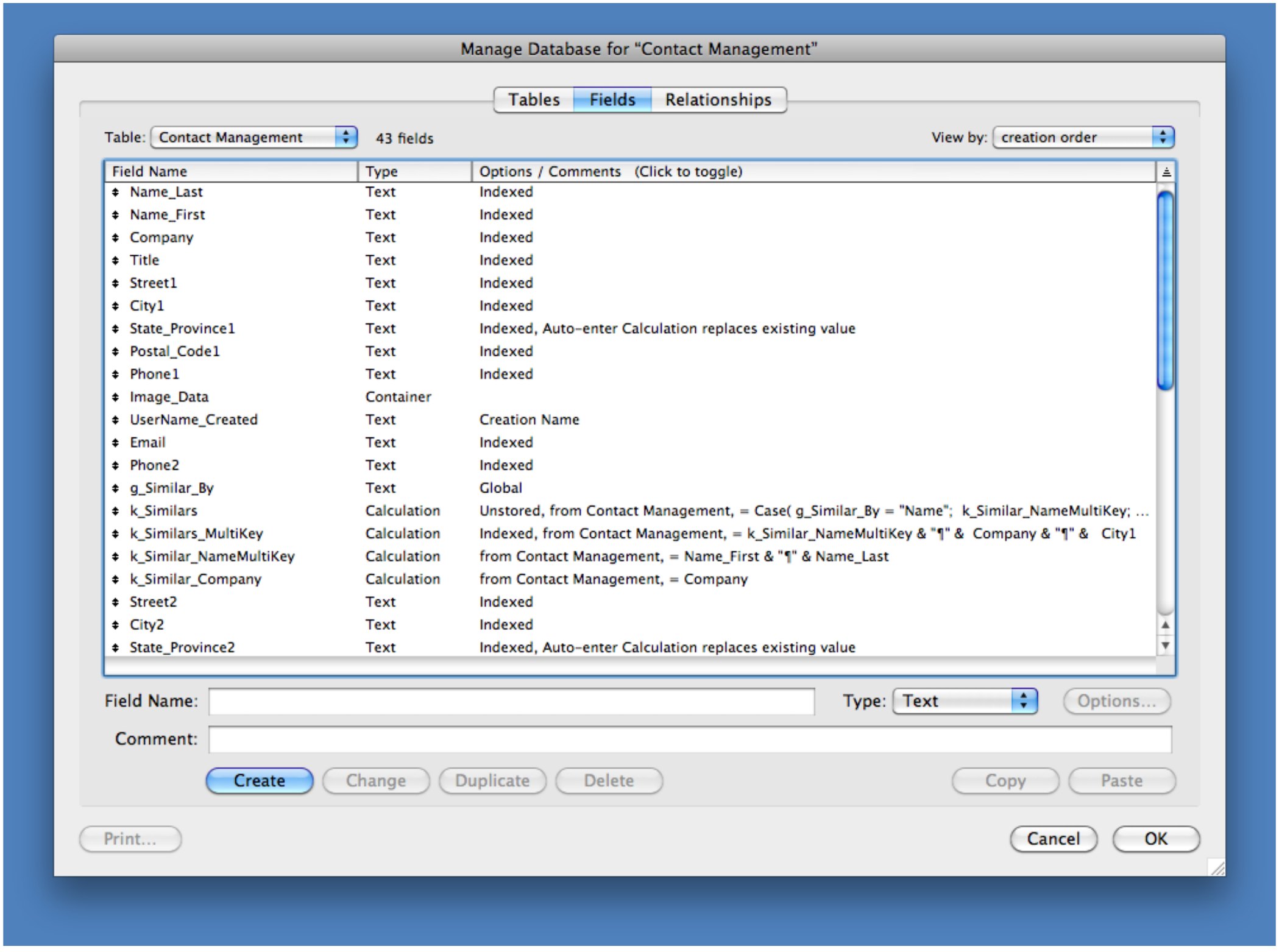


Name_First	Name_Last	Company	Phone1	Phone2	Email	Street1	City
Meredith	Ivrin	Hamilton Financial	217-446-7172	217-446-2369	meredith@ivrin.com	323 N Gilbert St	Danville
Nelly	Jakuboski	Hammerman,	203-438-9250	203-438-5109	nelly@jakuboski.	103 Main St	Ridgefield
Timothy	Janski	Snyder Chevrolet	907-344-4330	907-344-4086	timothy@janski.com	800 E Dimond Blvd	Anchorage
Lee	Javens	Dyer, James R Esq	262-763-9582	262-763-3845	lee@javens.com	6086 N Lyons Rd	Burlington
Roseann	Jerko	Larry Farmer	856-866-4945	856-866-1542	roseann@jerko.com	850 Glen Ave	Moorestowr
Karyn	Jinks	Maslen, David Esq	972-289-4090	972-289-3319	karyn@jinks.com	2318 N Galloway	Mesquite
Mack	Jurasin	Sherman, Michael D	540-980-4958	540-980-2978	mack@jurasin.com	1180 Dora Hwy	Pulaski
Maynard	Kaewprasert	Decatur Studio Inc	213-747-6026	213-747-3088	maynard@kaewpras	1224 S Hope St	Los Angeles
Berta	Karczewski	Sather Eng Inc	480-926-0770	480-926-7533	berta@karczewski.	1035 N Mcqueen Rd	Gilbert
Prince	Kauk	Mckesson Drug Co	623-581-7435	623-581-2472	prince@kauk.com	2320 W Louise Dr	Phoenix
Lana	Keels	Veron, J Michael Esq	732-462-1106	732-462-3575	lana@keels.com	711 Park Ave	Freehold
Genevieve	Kekiwi	Lawson, John F Esq	812-477-3620	812-477-3646	genevieve@kekiwi.	8300 Bell Ter	Newburgh
Karla	Ken	Nicollet Process	815-968-0369	815-968-7904	karla@ken.com	2135 11th St	Rockford
Rosalia	Kennemur	Reagan, Thomas J	318-335-5586	318-335-1873	rosalia@kennemur.	222 S 10th St	Oakdale
Jarrett	Kenzie	Young Men Christian	804-739-3007	804-739-7905	jarrett@kenzie.com	11551 Riverpark	Chesterfield
Jimmie	Kertzman	Oregon Pacific	808-841-2883	808-841-1772	jimmie@kertzman.	279 Puuhale Rd	Honolulu
Savannah	Kesich	Wbnd Am	435-645-0986	435-645-9504	savannah@kesich.	221 Main	Park City
Nickolas	Khosravi	Brennan, Mary V	949-646-6578	949-646-0043	nickolas@khosravi.	120 Tustin Ave	Newport Be
Carolina	Kinlaw	Loftus, Daniel B Esq	908-874-0864	908-874-4873	carolina@kinlaw.	3m County	Belle Mead
Kennith	Kirklin	Sears Roebuck And	615-385-1598	615-385-6946	kennith@kirklin.com	2303 21st Ave S	Nashville
Judi	Kivel	Postal Place At	316-267-2178	316-267-5183	judi@kivel.com	125 N Emporia St	Wichita
Randall	Kluemper	Lifestyles	603-356-3217	603-356-6174	randall@kluemper.	Rt 16	North Conw
Bridget	Knightly	Teamsters Union	828-251-0817	828-251-4242	bridget@knightly.	66 Flint St	Asheville
Clarice	Knower	Yaffa, Andrew B Esq	773-846-1489	773-846-1462	clarice@knower.com	210 W 79th St	Chicago
Tiffany	Knust	Vantage Products	408-453-0357	408-453-1525	tiffany@knust.com	1425 Koll Cir #	San Jose
Yvette	Kokoska	Automation	650-468-3592	650-468-7716	yvette@kokoska.	200 Valley Dr	Brisbane
Armando	Kolm	Cooper & Cooper	864-260-3642	864-260-9205	armando@kolm.	201 N Main St	Anderson
Margarito	Kornbau	Acker Knitting Mills	512-478-0371	512-478-4449	margarito@kornbau	303 W 15th St	Austin
Gisela	Kosicki	Lisher, John L Esq	818-713-6306	818-713-8346	gisela@kosicki.com	22140 Ventura Blvd	Woodland H
Rosalind	Krenzke	Waldein	763-537-4194	763-537-3885	rosalind@krenzke.	7000 Bass Lake Rd	Minneapolis

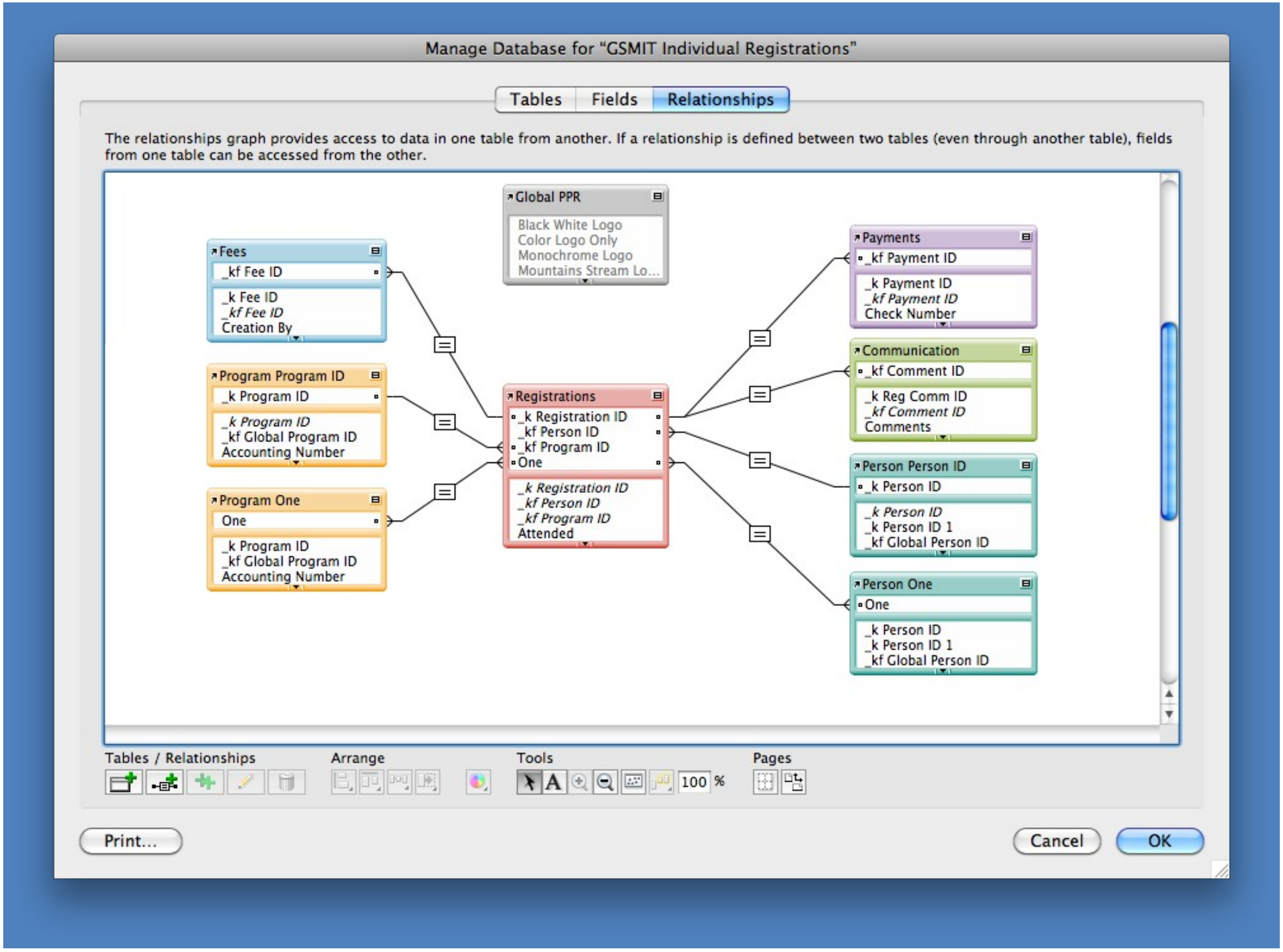
Tables


Manage Database for "GSMIT Individual Registrations"
Tables
Fields
Relationships
A table is a unique set of records and fields. A file can contain more than one table.
7 tables defined in this file
View by: custom order
Table Name
Source
Details
Occurrences in Graph
Communication
FileMaker
10 fields, 2 records
Communication
Fees
FileMaker
10 fields, 12 records
Fees
Payments
FileMaker
11 fields, 11 records
Payments
People
FileMaker
80 fields, 35 records
People, People Donors A, Person One, Person Person ID, Similar Family...
Programs
FileMaker
35 fields, 5 records
Program One, Program Program ID, Programs
Registrations
FileMaker
121 fields, 11 records
Registration ID Person, Registration ID Program, Registrations
Global PPR
FileMaker
6 fields, 1 record
Global PPR
Table Name:
Create
Change
Delete
Copy
Paste
Import...
Print...
Cancel
OK

Defining Fields



Relationship Graph



Other Features

- Organize a layout with grouped fields on tabbed objects
- View web pages within FileMaker layouts
- Sharing:
  - FMP file on your local network
  - Instant Web Publishing

Buttons

- Any object can be a button
- Buttons performs tasks
  - Go to a different layout
  - Sort data in a particular way
  - Hand off an email address to email application
  - Performs a custom script

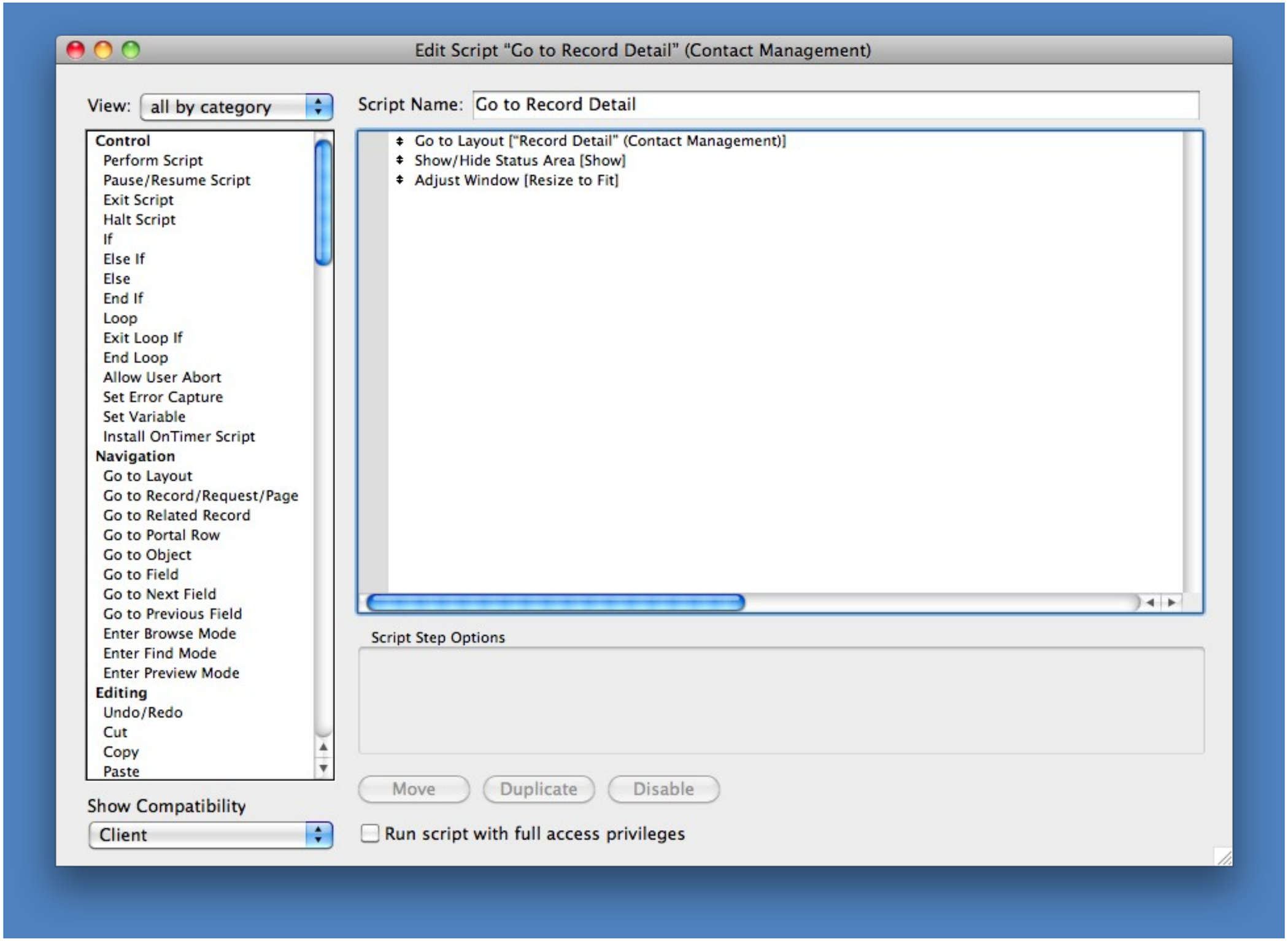
Scripts

- Perform a sequence of commands
- User- or developer-constructed series of instructions to perform.
- Like buttons, scripts allow automation of menu commands and/or activate commands not found in a menu structure.

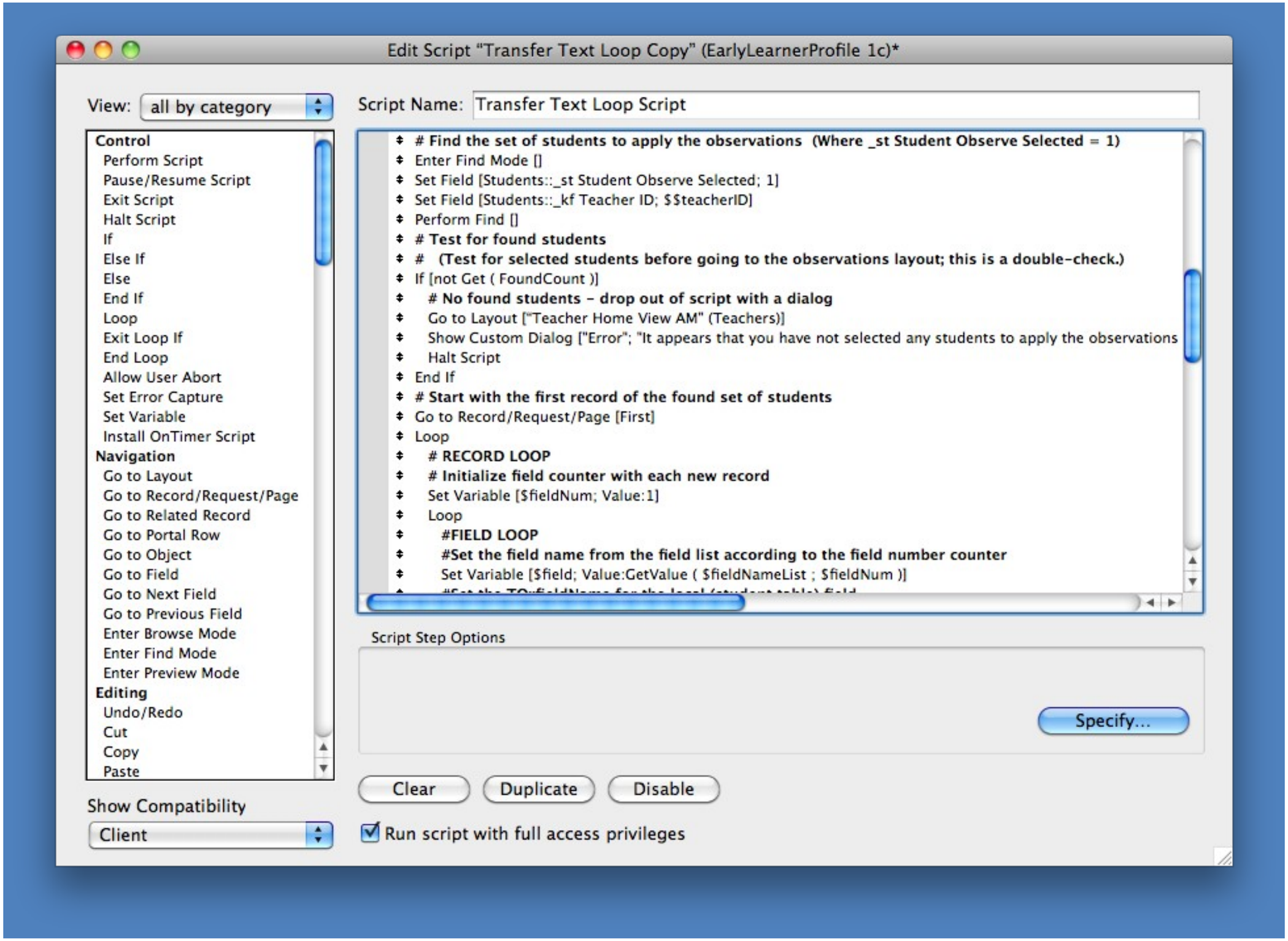
Scripts

- Simple scripts perform a single task
- Complex scripts might combine elements for:
  - User feedback and control
  - Programming techniques such as branching and looping
  - Powerful, dynamic instruction sets that accomplish large tasks

Simple Script



Complex Script



Let's Review - A

- A database file is organized into one or more _____. Tables store _____. Each record is a collection of _____.
- Work in FileMaker Pro is saved _____.
- Buttons _____ tasks.
- Scripts perform a _____ of commands.

Let's Review - B

- There are four modes:
  - Browse is where you enter _____ and view _____.
  - Find allows you to locate a _____ or a _____ of records.
  - Layout is for _____ how information will appear.
  - Preview lets you _____.

CONSULTING Songer

Cross-platform computer support and data management solutions
114 Ambling Way
Louisville, KY 40243
502.254.3371
bsonger@songerconsulting.net

Comments

- *It's time to make something up*

FileMaker