

Working with Accounting Data

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Objectives

- Understand the duty to preserve accounting data.
- Consider methods and strategies when producing accounting data.
- Learn how to choose an accountant or database expert or consultant.
- Understand what accounting software is available and used by businesses.
- Learn more about the details of accounting data.
- Provide information about accounting databases, including types of databases used.
- Learn how to view, report and export Quicken accounting data.
- Understand how accounting data is stored and displayed
- See how and why accounting data is archived and things to consider with archived accounting data.
- Understand issues about selecting accounting data to request or produce.
- Learn strategies for searching accounting data and search terms to use.
- Understand accounting data issues in family law cases.
- Learn how to approach disputes related to producing accounting data
- Learn about methods to actually produce accounting data.
- Learn about the process of working with produced accounting data.

Introduction

The Accounting and Auditing 101 chapter (see accompanying PDF) introduces accounting concepts and accounting issues important to e-discovery. If accounting or financial data is relevant to your case, make sure to request it, or be prepared to produce it. Furthermore, consider accounting and financial data in your Litigation Holds (see “Litigation Hold” chapter and Discovery Plan (see “The Discovery Plan and Form 35” chapter).

Producing or processing accounting data received in e-discovery generally requires an in-depth understanding of accounting systems and computer databases, and usually requires a significant commitment of litigation resources. Effectively managing this process can profoundly affect the success and cost of litigation.

TIP: There are numerous places in this chapter where you are advised to consider seeking experts or consultants with specialized knowledge such as CPAs and database experts. Accounting and financial ESI are very complex and sophisticated; make sure to get help when you need it.

This chapter provides an attorney with a basic understanding of issues that should be considered when accounting data is critical to a case involving e-discovery and to help manage that process. Having the appropriate expertise and resources available to work with the accounting data is critical to the process.

TIP: While this chapter specifically focuses on working with accounting data, it is also largely applicable to all situations where data is managed by software applications. For example this chapter would be largely applicable to a situation where a financial management company uses a database application to manage its security portfolio.

When producing accounting data, attorneys need to make sure that *just* the data that is supposed to be included is included. Inadvertently not including data that should have been included can lead to discovery sanctions (see “Handling Spoliation and Data Preservation Issues” chapter).

In re Quintus Corp., 353 B.R. 77 (Bankr. D. Del. 2006)

A bankruptcy trustee brought suit against a company that purchased the assets of a debtor and agreed to pay certain liabilities. The bankruptcy trustee claimed \$1,888,410.52 for the unpaid claims. The company failed to produce financial records related to the unpaid liabilities in discovery. The court ruled that the company's destruction of the documents was intentional and because the liabilities were not paid, the company should have anticipated litigation. The court stated that there would be a judgment for the bankruptcy trustee whichever sanction was applied (adverse interference instruction or precluding the company from presenting any evidence of the debtor's books and records), . Therefore, the court proceeded to enter a judgment in favor of the bankruptcy trustee for \$1,888,410.52.

In re Telxon Corp. Securities Litigation, 2004 WL 3192729 (N.D.Ohio July 16, 2004)

A default judgment was entered against PricewaterhouseCoopers, LLP, a third party defendant, in a case involving alleged violations by Telxon of the Securities and Exchange Act. The SEC requested documents from PWC relating to its financial audit of Telxon. The magistrate stated PWC's conduct constituted "willfulness, bad faith or fault" by failing to search servers and archives carefully; failing to accurately produce documents and databases; failing to produce documents kept in the ordinary course of business; producing hard copy documents in versions different from the electronic versions; failing to produce certain emails, metadata and other documents; and allowing the destruction of documents even though a preservation order was in effect. The magistrate also characterized PWC's production as "grossly negligent" because PWC made "no significant attempt to compare what is in those databases" or to "take minimum care to produce systematically what was in the databases." The magistrate further stated "PWC and/or its counsel engaged in deliberate fraud or was so recklessly indifferent to their responsibilities as a party to litigation that they failed to take the most basic steps to fulfill those responsibilities."

Nartron Corp. v. Gen. Motors Corp., 2003 WL 1985261 (Mich. Ct. App. Apr. 29, 2003)

In a breach of contract case, the trial court dismissed plaintiff's case because of its violation of discovery orders. The discovery in the case focused on plaintiff's research and development payroll data. During an evidentiary hearing on the discovery abuses, the evidence revealed that plaintiff's printed timesheets were backdated; some timesheets were fabricated as they did not match the computer data; computer data and budgets were altered or destroyed; and plaintiff failed to produce a FoxPro database backup tape.

Producing too much data can require excessive resources and could provide the other side with information that may be detrimental to the case or contain privileged or other information which should not be produced (see "Form 35 Report and Claw Back Agreements" chapter).

Producing Accounting Data

When producing accounting data the client's staff, including their "Information Technology" (IT) specialists, is frequently an important part of the process due to their:

- Understanding of the Company's systems.
- Understanding of how the data is organized.
- Understanding of the data itself.
- Ready availability.
- Relatively low cost compared to outside consultants

Of course, be prepared to have the client staff deposed regarding the accounting software and systems and methods for producing data (see "30(b)(6) Questions to Ask IT Personnel" chapter).

At the same time, attorneys need to carefully evaluate the client's staff in terms of:

- Their technical ability.
- Their understanding and appreciation of the nuances of the litigation environment.
- Their availability to assist on a timely basis.
- Their ability to document and provide appropriate evidence and testimony as to how the processing was done. More specifically, consider how credible a witness they might be if they eventually had to testify as to the processing they did.

TIP: Supplementing the client’s resources with computer and forensic accounting experts can often benefit the process of producing accounting data, even if only in the role of supervising and guiding the client’s staff.

Working with Produced Accounting Data

Working with accounting data that has been received as part of e-discovery proceedings usually involves more effort than is required to produce accounting data. Those receiving the data usually do not have an intimate understanding of the other side’s accounting system or the data and must become familiar with it. So more advanced technical expertise with an in-depth knowledge of accounting and databases is generally required to understand what was produced and then how to efficiently process it.

Even though the receiving party is unfamiliar with the accounting data, it must find key evidence in the produced data. This may include analyzing accounting databases (see “Databases for the Litigator” chapter) and spreadsheets (see “Spreadsheets as Evidence” chapter). Once key evidence is found, it is important to determine how to effectively present it at the trial (see “Presenting Electronic Evidence at Trial” chapter).

The next steps in effectively working with accounting data is to understand more about accounting software, what accounting data looks like and how accounting data is stored.

Accounting Software

Accounting systems range from the very simple to the very complex.

The simplest accounting systems are little more than electronic checkbooks. Intuit's Quicken software and Microsoft's Money are examples of this type of software. No accounting knowledge is required to use this type of software and it is principally suitable for personal/home use. But some very small businesses find this type of accounting software adequate for their needs. These type of accounting systems are often seen in e-discovery for family law cases (where income and expenses or small business valuation are at issue) and cases involving small business litigation.

The next more sophisticated accounting systems are programs like Intuit's QuickBooks, Microsoft's Small Business Accounting systems, Peachtree, MAS90 and many others. They are relatively low cost but require some understanding of accounting to use them effectively. Most small businesses use software in this category.

Smith v. Clark, 2006 U.S. Dist. LEXIS 38804 (S.D. Ga. Jun. 12, 2006)

In an accounting dispute over charges and profits made in the construction of a building which plaintiffs claimed was never finished to completion, the plaintiffs argued that printouts of accounting data and checks issued through the use of the QuickBooks software program were not as complete as would be an examination of the actual computer data used by the software, some of which probably was not included in the paper printouts. The court agreed that more information was available in the QuickBooks native electronic file than in the printouts, and defendants were ordered to produce it on a disk to the plaintiffs.

As companies get larger they require increasingly sophisticated accounting systems that can handle more complex accounting situations and cope with the larger volumes of data. They usually include subsidiary ledgers as discussed in Accounting and Auditing 101. Increasingly sophisticated software can track multiple companies, consolidate subsidiaries, include sophisticated sales/accounts receivable systems, include purchasing/inventory management systems, budgeting systems, and more.

Some companies have very unique requirements and have developed their own customized accounting software.

Accounting data is invariably stored in a database system which is then stored as one or more files on a computer. See "Databases for the Litigator" chapter for an introduction and information about Databases.

Accounting databases are discussed in more detail later in this chapter, but let's first get a more in-depth understanding of what detailed accounting data looks like.

Accounting Data

“Accounting and Auditing 101” introduces financial reporting and accounting concepts that are helpful for cases involving accounting information.

However, to effectively manage e-discovery involving accounting data often, it is often helpful to have a more in-depth understanding of how accounting data appears in accounting systems and how accounting data is physically stored in accounting databases.

In “Accounting and Auditing 101” we learned that the financial statements are a summary of account information in a general ledger. Each account, in turn, includes individual accounting entries. Accounting entries, in turn, can either be specific transactions or a summary amount with detailed transactions contained in subsidiary ledgers.

Account data is typically displayed in a **general ledger (GL)** format. General ledgers list for each account all of the activity in an account for a particular time period such as a month or a year. The start of a typical general ledger might look like the following for the ABC Company (see Figure 1).

ABC Company General Ledger for January 2007					
Account 10001 Ninth National Bank Checking					
Date	Reference	Description	Debit	Credit	Memorandum
1/1/07	Begin	Beginning balance	10,213.12		
1/10/07	JV-12409	Adjust Check #124690		0.32	See Dec 06 bank reconciliation
1/11/07	JV-12470	Wire transfer		9,000.00	Repay loan
1/12/07	JV-12432	Bank Service fees		70.00	\$60 for return check charges
1/31/06	CD-0701	Cash Disbursements		105,395.78	See cash disbursement example below
1/31/06	CR-0701	Cash Receipts	110,500.79		
1/31/06	SALE-0701	Cash Sales	1,265.52		
			121,979.43	114,466.10	
		January Ending Balance		\$ 7,513.33	

Figure 1. General Ledger.

The first entry in a typical general ledger account detail is the **beginning balance**. This entry is usually created automatically by the accounting software when it generates the report. It should always represent the ending balance for the account from the prior period.

In this example, the following three entries are “JV” or **Journal Vouchers**. Journal vouchers are used to record accounting entries that are not included in a company’s **subsidiary registers** (discussed below). Journal entries supporting these GL entries are shown in Figure 2:

Date	Account	Account Name	Debit	Credit
JV-12406 Adjust check #124690				
1/10/07	53124	Office supplies	\$0.32	
1/10/07	10001	Third National Bank Checking		\$0.32
<i>See Dec 06 bank reconciliation</i>				
JV-12470 Wire Transfer				
1/11/07	21234	Loans Payable	\$9,000.00	
1/11/07	10001	Third National Bank Checking		\$9,000.00
<i>Repay loan</i>				
JV-12432 Bank Service Fees				
1/12/07	60020	Bank Service Fees	\$70.00	
1/12/07	10001	Third National Bank Checking		\$70.00
<i>\$60 for returned checks</i>				

Figure 2. Journal Entries.

TIP: Journal entries are used to record activity that is outside of “normal” operations accounted for using subsidiary ledgers. Because of this it is not unusual for management or the accounting staff to use journal entries to obscure questionable or wrongful behavior. If you suspect that there is improper accounting activity one of the first places to look is journal entries.

The remaining three GL entries are for summaries from the Cash Disbursement (CD), Cash Receipt (CR) and Sales subsidiary ledgers.

Subsidiary ledgers are used to keep similar types of transactions together. Without them, general ledgers would quickly become so voluminous that they would not be useful. Plus, using a subsidiary ledger makes it much easier to locate and review a particular entry, such as specific check. A typical cash disbursements subsidiary ledger is shown in Figure 3:

ABC Company Cash Disbursements Subsidiary Ledger for January 2007					
Date	Check#	Payee	Amount	Account	Memo
1/2/07	125003	Sally's Delicatessan	550.00	570023	Catering for christmas party
1/3/07	125004	Smith's Equipment Sales	12,456.00	114005	Used truck
1/3/07	125005	John Smith	1,000.00	700001	Personal services

1/31/07	126001	Widgets Manufacturing	15,445.32	20100	Payment on account
		Total for January 2007	105,395.78		

Total Included in above general ledger example

Figure 3. Cash disbursements subsidiary ledger.

The total January cash disbursements of \$105,395.78 is posted to the general ledger as one amount. Typically the report would also include totals for each of the accounts the checks relate to. These totals would be posted to their respective GL accounts. For example, the general ledger account 20100 would also have a CD-0701 (See the GL example) with entry for the total checks for “payments on accounts.” This amount would include the \$15,445.32 amount shown.

Each journal entry and each entry in the subsidiary ledgers are generally supported by some kind of documentation. For example, a check to a vendor would be supported by one or more invoices from the vendor and evidence from the Company’s receiving department that shows the items actually being received by the Company.

TIP: Supporting documentation is becoming increasingly electronic and stored in electronic format. For example, invoices can be created and sent electronically as PDF files (Portable Document Format). Also, receiving departments can record quantities of products received directly into accounting software packages.

The above examples display the accounting data as might created by an accounting system report. As will be seen in subsequent sections of this chapter, the way accounting data is displayed often does not have a lot to do with the way the data is stored in the actual database files.

Accounting Databases

All accounting systems (as well as most computer programs that store data) consist of two primary components known as the **user interface** and **database engine**.

The **user interface** consists of what appears on the computer screen including all of the forms, dialog boxes and reports that the user sees. This user interface is also sometimes called an application's **front end** (See the Try-it-out later in this section).

In e-discovery cases, the user interface can, depending on the accounting system, be useful for you to review to assist with understanding the accounting data. Further, using forms and reports may be easier than reviewing the raw data in the database tables.

TIP: Although using forms and report may be easier to review than the raw data, they sometimes do not tell the whole story. A report, for example, will show data based on a query (filter) of the data. By creating your own queries and database analysis, you may uncover key evidence that you may not have otherwise discovered.

The **database engine** is invisible to the user of the software and handles the tasks of storing and managing the data that is stored in the data files. It is also sometimes referred to as an application's **back-end**. In most situations the typical accounting user has no interest in what the back-end database engine is. But it can be very important when it comes to understanding issues of producing and using data produced in e-discovery.

Database engines are normally categorized as either **Proprietary**, **Commercial** or **Open-Source**.

Proprietary Database Engines

Proprietary database engines store data in a unique, proprietary, way that cannot be accessed without using the specific software it was designed to work with. Proprietary database engines are usually developed by the software vendor. No other database software can normally read the data files managed by a proprietary database engine.

In re Honeywell International, Inc., No. M8-85 WHP, 2003 WL 22722961 (S.D.N.Y. Nov. 18, 2003)

An accounting firm was required to produce work papers in electronic form, because it was kept that way in the usual course of business, and provide proprietary software to view the electronic work papers.

Small accounting systems, such as Quicken, Microsoft Money are examples of proprietary database engines that are fully integrated into the accounting software. Quicken, for example, uses “QDF” files to store its data. QDF files can only be opened by Intuit’s Quicken program and without Quicken they are not useful.

TIP: If a proprietary data file is produced in e-discovery the easiest approach might be to just purchase a copy of the software. For example, it usually would make sense just to purchase Quicken to view QDF files received as part of e-discovery, especially as Quicken costs less than \$100.

Generally, the only way to work with the accounting data in systems with proprietary database engines is to use reporting or data export features of the program.

See the “Try It Out” involving Quicken following at the end of this section.

Commercial Database Engines

Commercial database engines have been created by companies to efficiently manage and store data and are available for purchase as separate stand-alone products. The company developing the accounting software has simply elected to incorporate one of the commercially available packages into its accounting system.

Oracle, Microsoft SQL Server and Microsoft Access are examples of commercial database software that are used by accounting and other database application (see “Databases for the Litigator” chapter).

TIP: When choosing a database expert, make sure the expert has expertise for the type of database data relevant to your case (e.g. Oracle, Microsoft SQL Server, Microsoft Access or other databases).

Many commercial database engines reside on special database server computers that are optimized for the database transactions (see “Types of Servers” chapter).

Open-Source Database Engines

Open-source software is developed by a loose consortium of software developers. The popular open-source database engine software is quite robust and reliable. It is available for free and the program and source code is available for download on the internet. “MySQL” is an example an open-source database engine.

TIP: If an accounting system uses a commercial or open-source database engine then the accounting systems data files could theoretically just be produced as is in response to a production request. However, it usually not as simple as that. Among the complications is that normally a subset of all the accounting data needs to be produced (See Selecting Accounting Data section). Also the costs of purchasing and setting up the open-source and commercial database engine can be a factor.

TIP: Sometimes it is cost beneficial to migrate the data from one database engine to another. For example, if you need a subset of data from a relatively expensive Oracle database system, it might be very cost effective to export the data out of Oracle and import it into less expensive Microsoft Access or Microsoft SQL Server databases.

TIP: If you suspect that accounting data has been deleted or altered, consider reviewing the backup tapes (see “Data Storage Archives and Backups” chapter). You should also consider having a forensic examination of the hard drive for deleted files (see “Computer Forensics for the Litigator” chapter).

Try It Out!

You have received a Quicken QDF file as part of a family law matter. You need to review the contents of this file. The easiest approach is just to buy a copy of Quicken (under \$100) and use its built-in features to view the data, create reports and answer many of your questions about the data.

TIP: When asking for accounting data files always be alert to include requests for passwords required to access the file or, better yet, request that the data be produced without passwords .

But, first, as stated several times in this book, do **not** open or review the original files or database! The moment you open a QDF file, Quicken modifies the file and updates the file’s date stamp. Store the original data in a secure location and work on a copy, preferably an imaged copy only (see “Imaging Hard Drives” chapter).

Quicken, Microsoft Access and many other relatively inexpensive data management programs are notorious for how easy it is to inadvertently change

data without warning you. To protect against inadvertently using modified data you should create several “control” reports when you first receive e-discovery data of account balances and other critical measures. Be alert to include all the data in these control reports.

Then store these reports in a secure location. Then you can periodically compare current information to the control reports to make sure nothing has been inadvertently changed.

TIP: Many of the above comments in this Try It Out are, in principal, applicable to most accounting systems and should be considered when either producing or receiving accounting data as part of e-discovery proceedings.

Now using a copy of the original QDF file, you open it with Quicken. The screenshot in Figure 5 shows Quicken 2005.

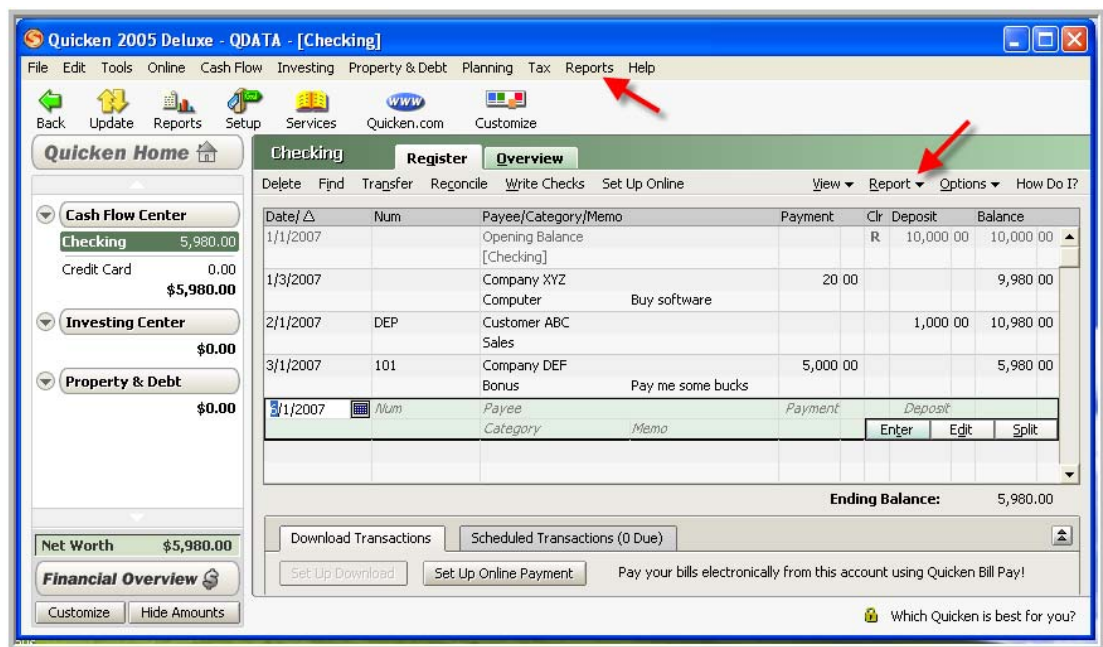


Figure 4. Quicken Register Display

Quicken is a relatively simple program to use. But like all programs it takes time and effort to use it effectively. Also, as with all databases, you have to be particularly careful in interpreting and using the data. It is all too easy to come to the wrong conclusions based on faulty assumptions. If in any doubt, consult with someone familiar with the Quicken (or whatever program you are using) to confirm your interpretation of the data.

The arrows in the above Figure 4 point to ways to print out reports and export report information from Quicken. First, we are going to click on the “Report” button within the “Checking” window. From the sub menu, click on “Register Report” and a report similar to Figure 5 will be displayed.

Register Report - All Dates
1/1/2007 Through 5/31/2007

Date	Account	Num	Description	Memo	Category	Clr	Amount
BALANCE 12/31/2006							0.00
1/1/2007	Checking		Opening Balance		[Checking]	R	10,000.00
1/3/2007	Checking		Company XYZ	Buy software	Computer		-20.00
2/1/2007	Checking	DEP	Customer ABC		Sales		1,000.00
3/1/2007	Checking	101	Company DEF	Pay me some bu...	Bonus		-5,000.00
TOTAL 1/1/2007 - 5/31/2007							5,980.00
BALANCE 5/31/2007							5,980.00
TOTAL INFLOWS							11,000.00
TOTAL OUTFLOWS							-5,020.00
NET TOTAL							5,980.00

Figure 5. Quicken Account Register Report.

For Figure 5 we have included all dates (see small arrow). Other date ranges can be easily picked from the drop-down list displayed by clicking on the down-arrow to the right of “Include all dates”.

Click on the Print Icon to actually print the report or send the report to a file. A print dialog box similar to Figure 6 will be displayed.

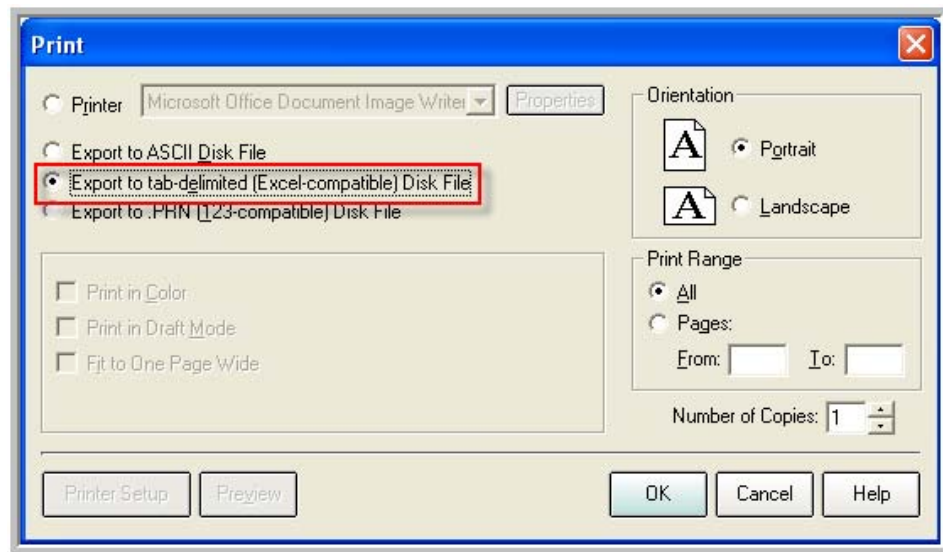


Figure 6. Quicken Report dialog box

By picking “Printer” a report that looks very similar to Figure 5 will be printed.

However, by choosing the “Export to tab-delimited (Excel-compatible) Disk File” as we have done in Figure 6 you can save the report as a text file that can then be loaded into Microsoft Excel or other spreadsheet program. Clicking on OK will prompt you for where to save the text file. Select a location and remember it.

Now open Excel and under the “File” menu, choose “Open.” In the “Open” dialog box, change the “File of Type” dropdown list to include text files (.txt). Choose the text file and the data will appear in Excel as shown in Figure 7.

	A	B	C	D	E	F	G	H	I
1		Register Report							
2									
3		1/1/2007 Through 5/31/2007							
4									
5									
6		Date	Account	Num	Description	Memo	Category	Clr	Amount
7									
8									
9									
10									
11									
12		BALANCE 12/31/2006		0					
13		1/1/2007	Checking		Opening Balance		[Checking]	R	10,000.00
14		1/3/2007	Checking		Company XYZ	Buy software	Computer		-20
15		2/1/2007	Checking	DEP	Customer ABC		Sales		1,000.00
16		3/1/2007	Checking	101	Company DEF	Pay me some bucks	Bonus		-5,000.00
17		TOTAL 1/1/2007 - 5/31/2007		5,980.00					
18									
19		BALANCE 5/31/2007		5,980.00					
20									
21		TOTAL INFLOWS		11,000.00					
22									
23		TOTAL OUTFLOWS		-5,020.00					
24									
25		NET TOTAL		5,980.00					
26									

Figure 7. Quicken report exported to Excel.

All Quicken reports can similarly be saved in a text format that can then be loaded into Excel.

Quicken includes a number of pre-defined reports that can be used to view data in the Quicken file. On the main menu (See Figure 4) click Reports. A screen similar to Figure 8 will be displayed:

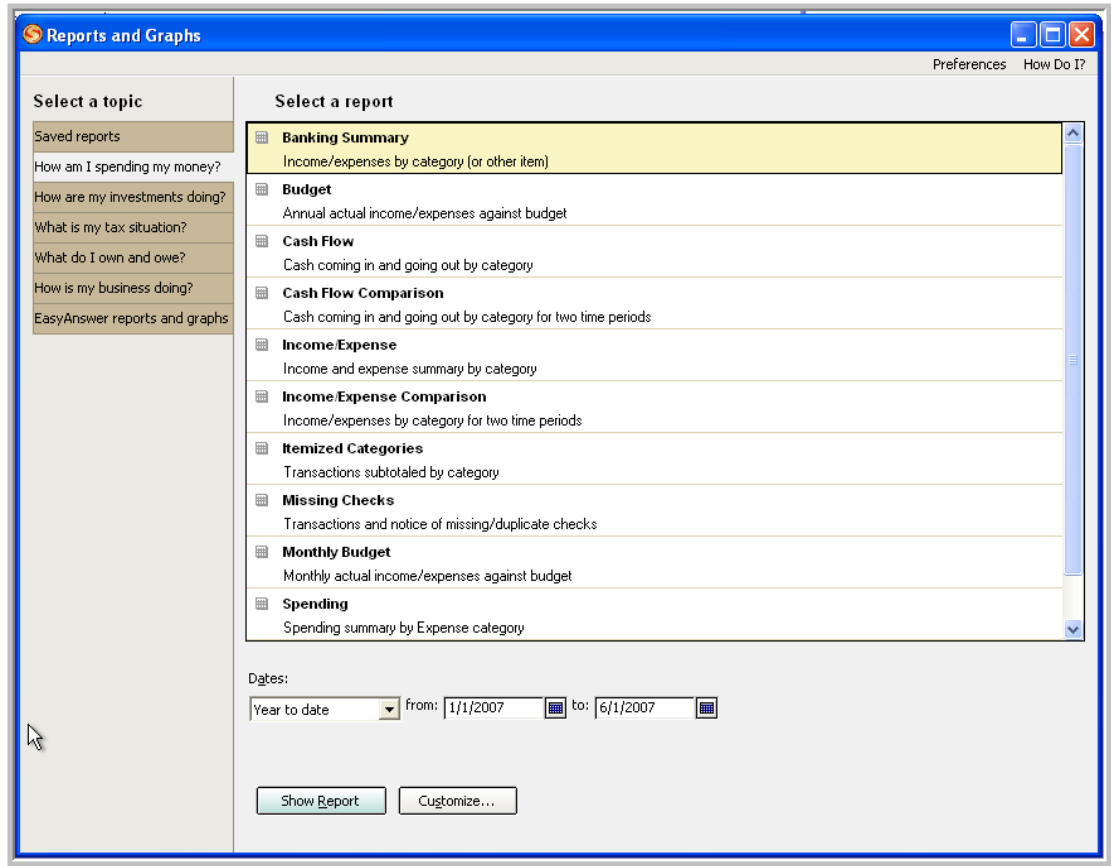


Figure 8. Predefined Quicken reports.

These pre-defined reports present the same data in different formats and summarized in various ways.

Even the most inexpensive accounting systems utilize separate software components to control the display and storage of data. The advantage of this approach is that you can have multiple ways to view and work with the same basic data and since the system is controlling the way data is stored, you cannot corrupt the data by viewing it in different sort orders.

TIP: Database applications store and display data in a distinctly different way than word processing and spreadsheet programs such as Microsoft Word and Excel. These type of programs store data in the same way as it will be displayed on the screen or when printed. They are consequently often referred to as “What-You-See-Is-What-You-Get” (WYSIWIG) programs. To change how something is printed in a WYSIWIG programs you have to modify the way it is displayed on the screen. Then, you have to undo the changes or revert to a previously saved copy to get back to the original format.

To illustrate this point, let’s look at the Checking account data sorted by amount. First, go back to Figure 5 where the Checking register is shown by

date. By clicking on the Customize button in the upper right corner, the dialog box shown in Figure 9 is displayed.

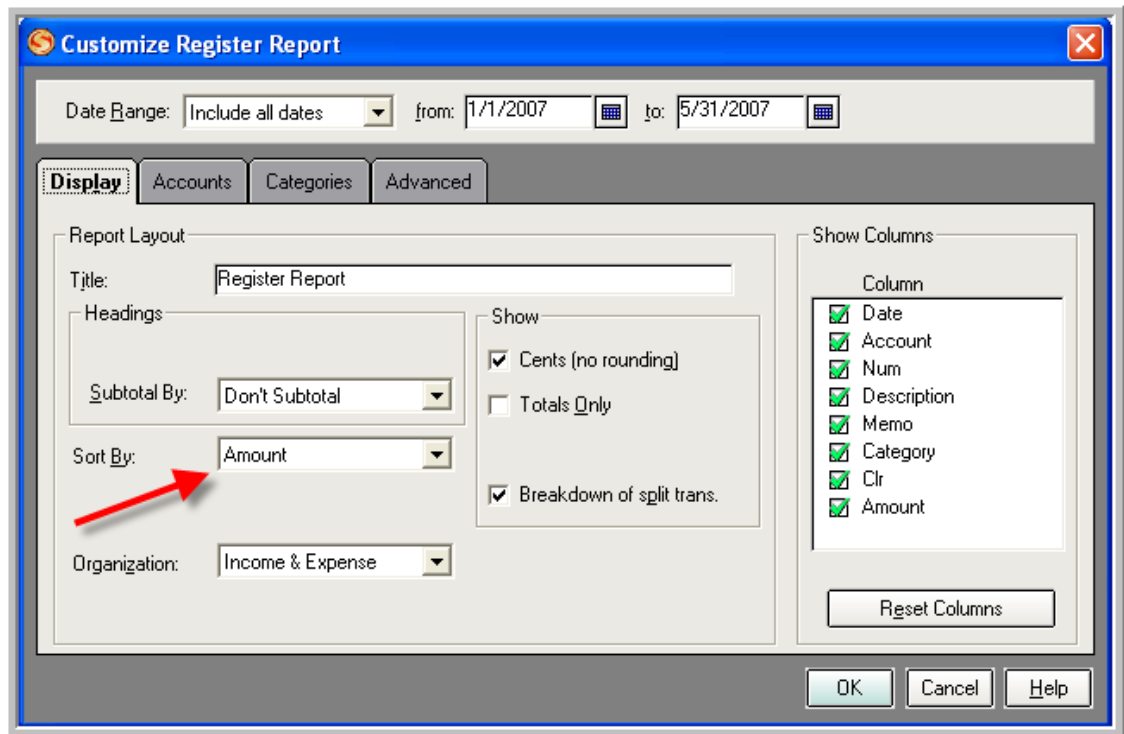


Figure 9. Customize a Report to Sort By Amount.

Change the “Sort By:” value to Amount (see arrow). Then click OK and the same report is displayed but it is now sorted by amount. As shown in Figure 10, the Checking register form is sorted by Date, and the report is sorted by amount and both can be seen at the same time!

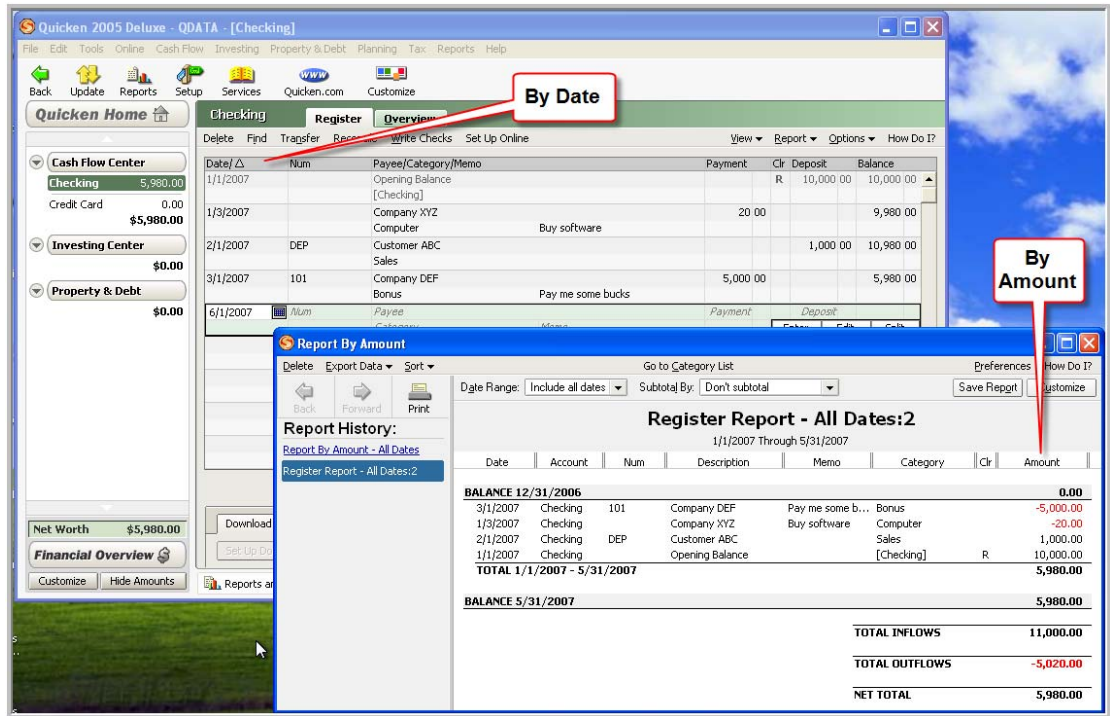


Figure 10. Displaying the same data in different ways.

This new report, sorted by amount, can be saved so that it can be instantly retrieved at a future time and used over and over again, always displaying the current information. By clicking on the “Save Report” button in the top right corner of the report window, the dialog box in Figure 11 is displayed.

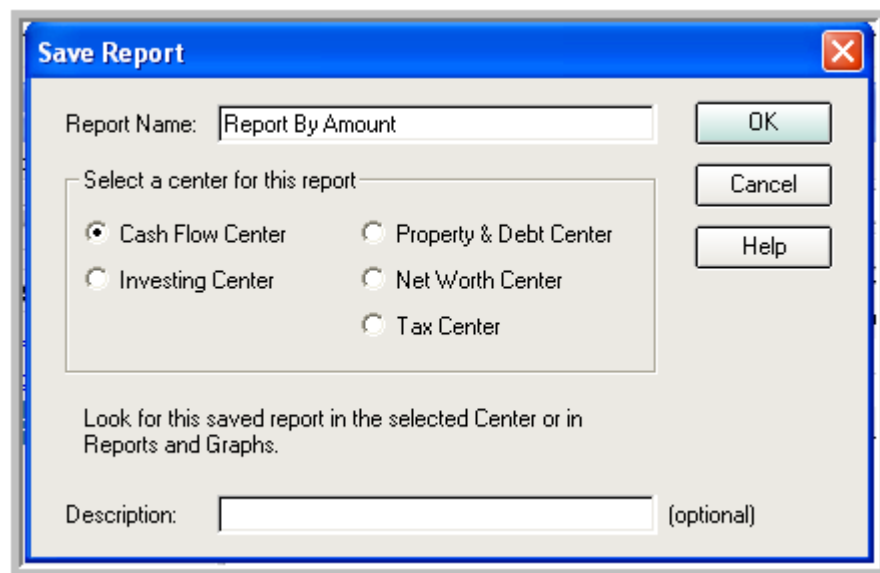


Figure 11. Saving a Report

After editing the Report Name text to whatever we want, clicking OK saves this report. It is then displayed on the Report and Graphs Dialog box (main Report menu, Reports and Graphs sub menu) as displayed in Figure 12.

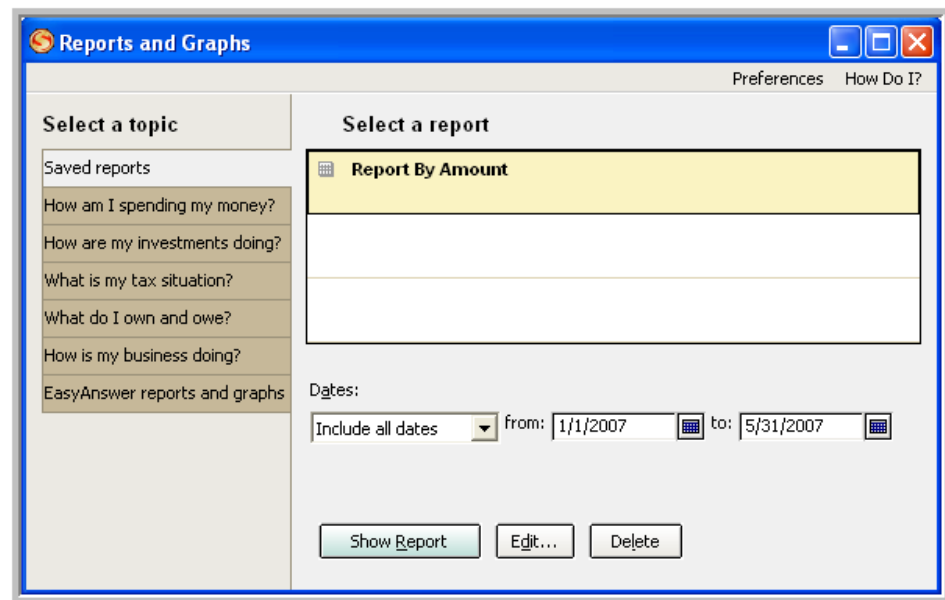


Figure 12. Saved Reports

Simply clicking on the show report will display the “Report By Amount” using the date range specified.

Sometimes circumstances require that Quicken data be migrated to a more powerful and flexible database system so that special analyses can be performed. For example, suppose you want to compare the data in two similar Quicken files or you need to combine the data from several Quicken files together. This is much more easily done in Microsoft Access. This could be done by exporting reports of each register to Excel as described above, and then editing each of the spreadsheets to strip out the titles and totals in preparation to importing it into Access. Or, you can export each register to a special text format by selecting from the main Quicken menu File/Export/QIF:

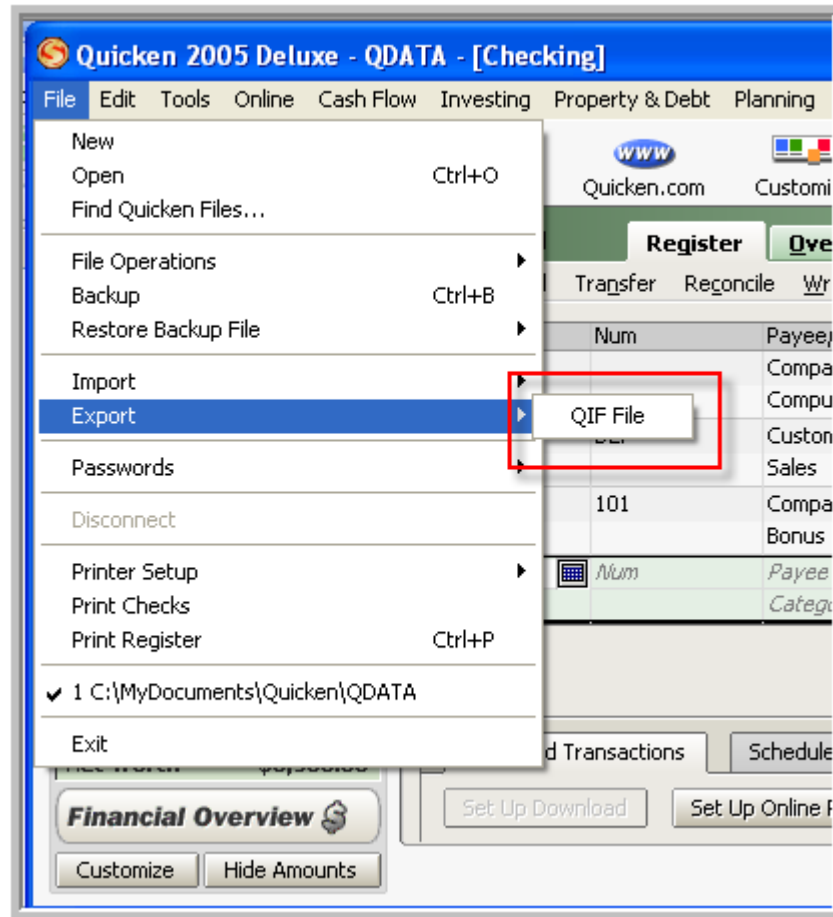


Figure 13. Export Data to QIF file.

The QIF Export dialog box is displayed similar to Figure 14.

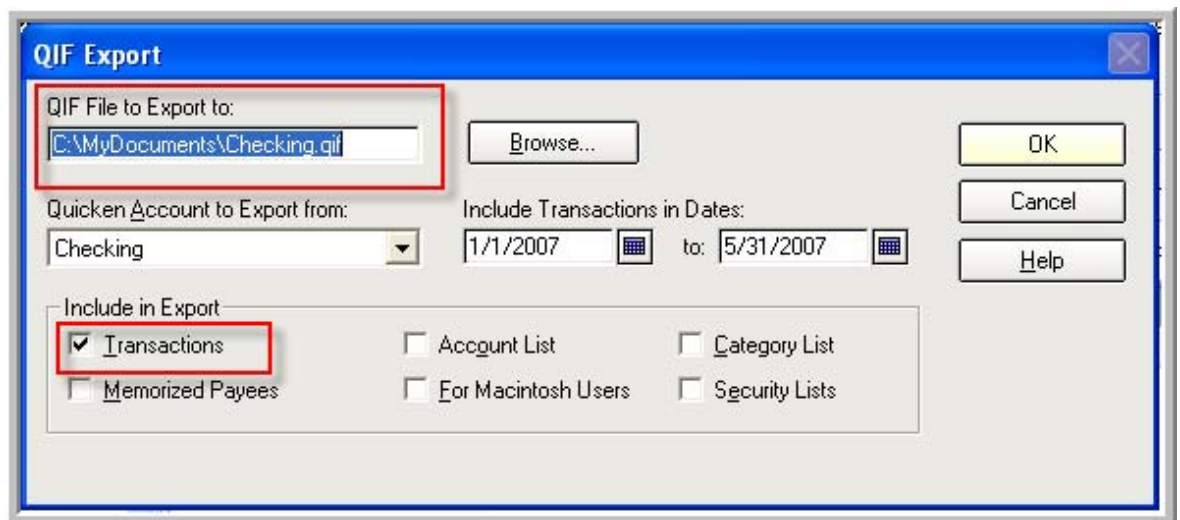


Figure 14. QIF Export dialog box

Specify the QIF file text file where the data will be saved in the top box. To Export transactions click the Transactions check box. A text file that looks like the following is displayed using the Windows Notepad program (in Windows under Start/App Programs/Accessories):

```

!Type:Bank
D1/ 1' 7
U10,000.00
T10,000.00
CX
POpening Balance
L[Checking]
A
D1/ 3' 7
U-20.00
T-20.00
PCompany XYZ
Mbuy software
Lcomputer
A
D2/ 1' 7
U1,000.00
T1,000.00
NDEP
PCustomer ABC
LSales
A
D3/ 1' 7
U-5,000.00
T-5,000.00
N101
PCompany DEF
MPay me some bucks
Lbonus
A

```

Figure 15. QIF data export file

Needless to say this data is not very useful as it is exported. To use it in Access you need to have a computer specialist convert it. The accompanying CD includes a small program that will convert QIF Files into column data that can then be easily imported into Microsoft Access, Microsoft Excel or other programs. See the “QIF Exporter” folder on the accompanying CD.

Quicken data files include a lot of information besides just the accounting data. As we have seen this includes information about saved report formats, but also can include potentially sensitive bank account data (used by Quicken to automatically download bank and credit card data). For example, if you click on the “Overview” tab (See Figure 4) the following screen is displayed where bank account information might be displayed.

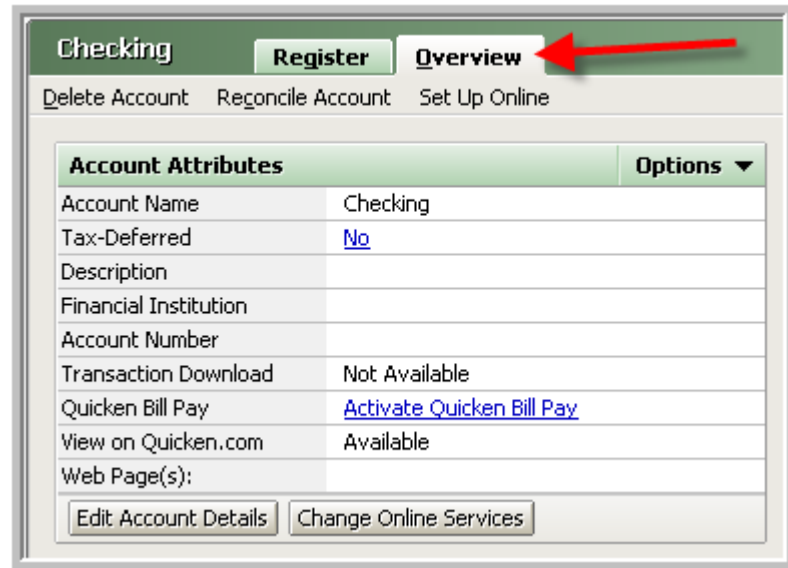


Figure 16 – Quicken Account Information

You should be checking if the Quicken data files received or about to be produced contain sensitive data. If sensitive data is inadvertently included in a file produced as part of e-discovery consider how it should be handled.

TIP: Depending on the accounting system you might want to consider hiring a consultant to make sure all sensitive data or non-responsive data is removed and perhaps generate “control” reports.

Storing and Displaying Accounting Data

As we discussed in the prior section accounting data is stored independently of how it is displayed. Consequently, in developing e-discovery requests or planning an e-discovery production it can be helpful to better understand how accounting data is stored in a database application.

TIP: Every accounting system stores accounting data in its own distinct way. However, the principals illustrated in this section are applicable to all database applications, including accounting systems.

Accounting databases normally store data using a hierarchical structure. Primarily this is done to minimize space required to save the data but it also makes it much more efficient to find and work with data. The hierarchical structure for the general ledger portion of a simplified accounting system might look like the following:

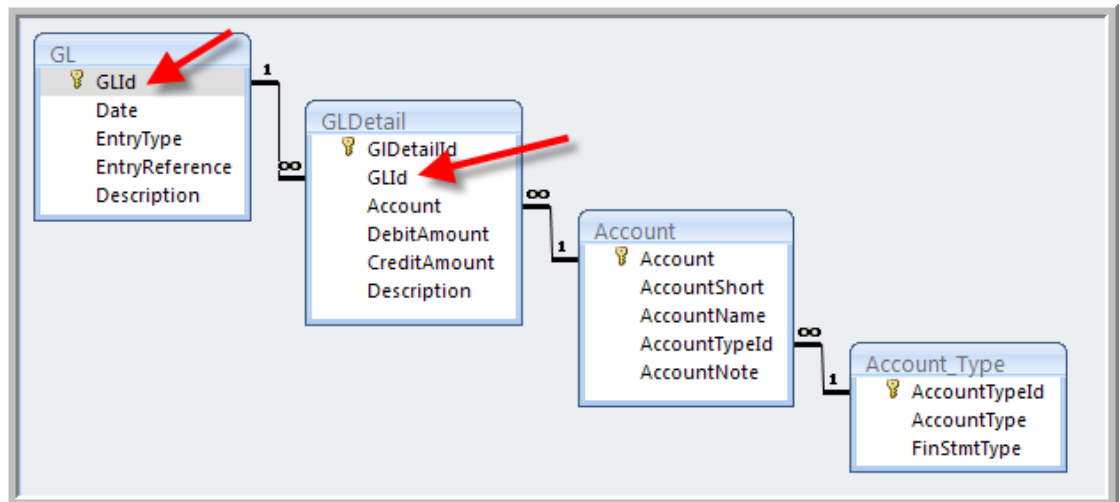


Figure 17. Hierarchical structure of accounting system.

In the diagram each box represents a table of data with the columns listed in each box. In this example the **GL** table is at the top of the hierarchy. It lists common information for each general ledger entry, such as the reference and description. While the GL table includes information like the date of the general ledger record, it does *not* include any dollar amount information. The dollar amounts are included in the next lower level of the hierarchy in the **GLDetail** table. This is because every entry in a general ledger must have at least two individual entries that also include the amounts.

Note how the GL table is linked to the GLDetail table using the GLId field (see arrows). Thus the simplest general ledger entry would have two records in the GLDetail table. The first representing the debit record and the second being the credit record (with the same amount in the CreditAmount column).

The relationship between the GL and GLDetail tables is referred to as a One-To-Many relationship where there can be multiple GLDetail records associated with each record in the GL table.

TIP: The **GLId** field is a “hidden” field in the database. It is normally never seen by users. But whenever requesting or producing raw accounting data it can be important to include hidden fields like this. GLId, in this example, is an arbitrary number that is used to uniquely identify each record in the GL table. Its primary purpose is to both uniquely identify each GL record and to link the GL table to the GLDetail table. For example, if the GL table and GLDetail tables were produced in e-discovery with only the columns viewed by the user (without the GLId field) it would be impossible link the two tables. It would not be possible to know which records in GLDetail belonged to which GL record. More specifically, it would be impossible to know the date for the records in the GLDetail table.

Continuing with the example, each GLDetail record has an **Account** column. The Account value is, in turn linked to the **Account** table where the description of that account is stored. The information about where a particular account is displayed in the financial statements is then defined in the **Account_Type** table.

The Account table defines the Account “code” data in the GLDetail table. The Account table (as well as the Account_Type table) are usually referred to as “Code Definition” tables or sometimes referred to as “Lookup” tables.

As part of an e-discovery proceeding, it is critical that all 4 tables in this example be produced. Omitting one of the tables or omitting the fields used to link the tables would make the information partially or completely meaningless.

TIP: This is a very simplified example of accounting data. The key point is to appreciate how complex the structure of accounting data can become and the care which must be exercised when either requesting or producing accounting data.

Archived Accounting Data

Accounting data can become quite voluminous within a relatively short period. Further, after a period of time, sometimes just a year or two, older accounting data is no longer needed for managing a company's current operations. Plus, larger volumes of data use up computer resources and can slow down the performance of the accounting system.

Therefore companies, from time-to-time, **archive** older accounting data. Archiving is the process where the older accounting data is removed from the "active" database and stored in a form that can be retrieved if needed. But it is no longer using the primary computer resources of a company. Frequently this means that it is copied to backup tapes or other electronic media for storage (see "Data Storage Devices" and "Data Storage Archives and Backups" chapters).

Ukiah Auto. Invs. v. Mitsubishi Motors of N. Am., Inc., 2006 WL 1348562 (N.D. Cal. May 17, 2006)

Where plaintiff failed to produce missing financial statements and claimed their computer was no longer operational, the court allowed a neutral expert to inspect the computer at defendant's expense.

Complicating the process of archiving data is dealing with the problems of accounting system updates, especially those that change the structure of the database. Similarly, migrating from one accounting system to another can cause similar problems.

For example, a new feature is desired in the accounting system of a company. It requires several new tables and columns. These are added to the accounting database and the accounting system is updated with the new features. The accounting system now expects those new tables and columns to be included in the accounting data.

Well, what happens if the company now has to refer to the archived accounting data that does not include those new columns and tables? The accounting software will likely fail.

TIP: Software that is integrated with a database requires the data to be in a very specific structure. Any change to the structure of a database will likely cause the software not to work as expected and frequently causes it to "crash". Any time data structures are modified, companies and their software vendors need to be alert to how the new system will work with older data files.

TIP: Most commercial accounting software automatically detects and updates older versions of its databases. But they generally only go back a limited number of versions so it is advisable to test older data from time to time to make sure it will work with the current accounting system.

Consider the following scenario. You request accounting data for 1995 to 2005 as part of e-discovery. In early 1999 the company archived the accounting data for 1995 to 1997 and removed it from the active accounting data. Then in late 1999 the company's accounting software vendor updated the software for year 2000 issues, including modifying the way data is stored. Further, in 2002 the company implemented a new backup system and put into storage the backup equipment and software previously used.

To retrieve and produce the 1995 to 1997 data:

1. The company may need the older backup equipment, the backup software and media the data was stored on. Typically this would involve a tape drive, the software used to operate the tape drive, and finally the tape media used to backup those years of data (see "Data Storage Archives and Backups" chapter).
2. It would have to locate computer equipment that was compatible with the tape drive and tape backup software. Due to how rapidly computer equipment and software changes this can be more difficult than it would first appear.
3. The company would probably have to locate the original installation disks of the accounting software used before the 1999 changes, or possibly the backups of the computer systems where that software was run. The company would also likely need to locate license information and documentation related to the software used in those years.
4. Then the accounting system and accounting data would need to be installed or restored. Further, if the accounting system utilized a commercial or open database engine, the version of that database engine that the accounting software was designed to work with would need to be restored.
5. Depending on the complexity of the computer equipment, backup software and accounting software, it might take special expertise to restore the data, restore the software, and/or operate the accounting software.
6. Then, finally, the company would need to go through the steps to produce the data for 1995-97, and subsequent periods as described later in this chapter.

TIP: Companies need to be particularly vigilant when updating computer software and equipment to insure that older data can be retrieved using the new software and equipment. Taking the extra steps during the upgrade process to also migrate archived data can avoid significant future problems. It is a good practice to create and maintain formal computer equipment and software migration plans.

Also, consider:

- What if the older computer equipment simply no longer works? You can easily imagine how hard it might be to locate a particular tape drive (that perhaps has not been sold for 5 years) that is required to read an old backup tape.
- What if the companies that originally sold the computer equipment, accounting software or database engine software is no longer in business? Or, similarly, the companies that did produce them no longer support the product or software?

TIP: If problems exist restoring archived accounting data or the electronic data no longer exists, then ways to convert the archived printed accounting reports should be investigated. Scanning the accounting reports and using optical character recognition technology can sometimes be used, but its accuracy often requires excessive manual labor to locate and fix the problems. Another way to solve the problem is using off-shore data entry companies to keypunch large volumes of data. You may also take the position that the data should not be produced because it is “not reasonably accessible” pursuant to FRCP 26(b)(2)(B), though a judge may order its production even if it is.

Selecting Accounting Data

Time Frame

Requests to produce accounting data should almost always include a time frame. But what should the time frame be? Of course this depends on the facts and issues of your case. In some cases, obtaining data for periods before and after the time periods relevant to the litigation can be beneficial.

Consider a case where a company's 2005 performance is a key issue. Just looking at the 2005 accounting data might not reveal anything that unusual. But by contrasting 2005 accounting data to prior and subsequent periods could yield important information about 2005 performance.

For example, if 2005 revenue is a key issue, looking at the accounting records for just 2005 might not explain much about why 2005 sales are higher than 2004 or 2006. It would probably be beneficial to also have at least 2004 and 2006 accounting data to be able to compare sales by customer for each year. Then you could discern that sales to one customer explains most of the higher 2005 revenues. Then you could focus on why sales to that one company increased so much.

Entities to Get Data From

A common issue is deciding what entities to request the accounting data for (e.g. the Enron litigation where a key issue was the allocation of profits and losses between companies and subsidiaries).

In re ATM Fee Antitrust Litig., 2005 WL 3299763 (N.D. Cal. Dec. 5, 2005)

In a class action, Bank of America was ordered to provide discovery for itself and its wholly owned subsidiaries. Bank of America had conceded that "certain of its affiliates may have possession, custody or control of potentially relevant documents." The court stated "federal law requires that a parent respond to an interrogatory under FRCP Rule 33 with information from a subsidiary if it has access to that information and if the information is relevant and not privileged."

For example, a matter primarily involving the B Company which is a subsidiary of the ABC Company. The accounting records of B Company are produced. It is then noted that there are significant questionable transactions with both the parent ABC Company and also with the C Company subsidiary of ABC Company. Now the accounting records of the both the parent and C Company might need to be requested to fully understand and document B Company's questionable transactions.

A related issue is dealing with situations where you see questionable transactions involving another company that you now discover is a related party (perhaps as it is partially owned by someone involved in the litigation). You should consider expanding your e-discovery requests.

TIP: When reviewing accounting data, pay particular attention to potentially questionable transactions involving a parent company, subsidiaries, sister companies (other companies owned by the same parent) and other companies or individuals that are “related” or involved in the matter being investigated. “Related” individuals or companies are those that either have, or potentially could have, a relationship that is not completely independent of each other and where transactions between them might not be at “arms-length”. For example, if two companies are owned by brothers, then it is certainly possible that the two brothers might have “side-agreements” concerning transactions between them.

Level of Detail

What level of detail should the request for accounting data specify? Frequently, descriptions and notations in the general ledger and subsidiary ledger are cryptic and hard to understand, especially by those not familiar with a company’s terminology. In order to really understand particular accounting entries the supporting subsidiary ledgers and/or paper documentation might also be necessary and require a supplemental discovery request or interrogatories.

TIP: Use additional discovery requests, interrogatories and depositions to fully understand the structure and availability of accounting data that you would like the other side to produce. Consider asking an accounting or technical expert to assist with the process.

Continuing the earlier example, after the initial discovery request of 2004-2006 accounting data, you find that sales to a particular company accounts for the large increase in sales in 2005. You suspect this company is controlled by the brother of the owner of the company involved in a litigation matter. You then prepare a supplemental discovery request for all communications with that company.

A related issue is being careful to only ask for data that is likely to be relevant to a matter. For example, instead of requesting “all accounting data, including all subsidiary ledgers”, you might exclude the payroll register or other specialized registers (such as an Insurance company’s claim subsidiary ledger) that are not applicable to the current litigation

Also be alert to accounting terminology issues. While terms like “general ledger” and “cash disbursements subsidiary ledger” are generally recognized, other terms are frequently used. For example, instead of “subsidiary ledger” the term “register” is frequently used. Similarly, “journal vouchers” are frequently called “journal entries”.

Further, many industries have specific terms for particular kinds of accounting records such as “Claims Register” for an insurance company’s listing of claims received and estimated liability for those claims. Interrogatories might be considered to explore available accounting information.

TIP: When dealing with technical accounting and computer issues, such as at a Meet and Confer, consider bringing along client representatives and knowledgeable consultants or experts who can identify and quickly resolve terminology, data exchange and other discovery issues.

Geographical Area

In some cases, you may want to limit the production of accounting data to a specific geographical area. For example, in a case involving sale of copyrighted material by a company within the state of Arizona, you may want to request sales accounting data and transactions for Arizona only.

Data Sampling

In cases involving very large amounts of data, courts sometimes favor data sampling. For example, assume that you are dealing with an accounting system with millions of disbursement transactions and the veracity of the disbursements is at issue. You might structure a discovery request to ask for summaries of disbursements by month and then a sample of individual disbursements for each month, along with supporting information for each of the sample disbursements.

If a review of the sample data reveals questionable transactions, judges will then usually let you expand the scope of your discovery request.

TIP: Using database queries, or custom programming, records can be randomly selected from an accounting system or database for production.

Data Selection Issues When Producing Data

Once the time frame, level of detail, geographical area and other criteria is determined, the responsive data then needs to be extracted from all of the available accounting data. Often this is more complex than expected.

Most accounting systems are focused on assisting management with running the business and creating common reports used by management. They are generally not designed in anticipation of the needs of producing data for e-discovery and often have limited ad hoc query, reporting and export capabilities.

Therefore, it often takes special expertise and in-depth knowledge of the accounting database structure to design and make the special queries required to produce the accounting data as part of e-discovery.

Sometimes, this might actually have to be done outside of the actual accounting system by working directly with the database engine product. For a system using a proprietary database engine, this can cause further complications and might require special expertise.

TIP: A common problem with reviewing querying databases is that results can “look right”, “smell right”, but are *not* right. This is usually due to the way tables are linked together, but can also be due to errors when designing queries. Test the query results!

Extracted Accounting Data

After the data is extracted, it should be thoroughly tested to make sure it satisfies the disclosure requirement under the Federal Rules of Civil Procedure and the production requirements of your case. Not only should it be reviewed to ascertain that it includes all of the data requested, but that it does not inadvertently include data that it should not.

Examples of possible tests include:

- Do the debits equal credit?
- Do account totals in the extracted data agree to previously published financial reports?
- What is the minimum and maximum dates included in the extracted data.
- Do the sum of amounts in subsidiary ledger data being produced agree to the summary amounts posted to the general ledger?

TIP: The process of producing accounting data normally consists of numerous steps. Attorneys should make sure that each step is thoroughly documented so that it can be defended and/or replicated if necessary. The attorneys should also take care to make sure the persons doing the work are not only competent working with computers and accounting data, but are also ready and willing to testify to what they have done.

TIP: The actual methodology for producing the extracted accounting data can be a strategic part of the e-discovery process. Specifically, the way the data is structured, the format the data is produced in, and the media it is produced on can, while meeting the requirements of the court and the production request, make it more or less difficult to work with and understand the data. A computer literate forensic accountant can further advise you with respect to particular situations.

Searching Accounting Data

You may have cases where you want to search for financial documents or reference to documents in emails and other sources (see “Understanding Search Technologies” chapter). This is especially important if you think the company is keeping two sets of books or there are accounting issues involved.

Your discovery request may include a search for all emails and document with certain financial terms to uncover additional financial documents but also collateral information to help you understand the financial information.

The following are some search terms you may consider using (this list is not comprehensive):

- Accounting
- Allocation
- Allowances
- Archive
- Audit
- Backup
- Balance
- Balance Sheet
- Cash Disbursements
- Cash Flows
- Cash Receipts
- Company
- Consolidated
- Credit
- CPA (Certified Public Accountant)
- Database
- Debit
- Depreciation
- Equity
- Expenses
- Financial Statement
- Financial Position
- GAAP (Generally Accepted Accounting Principles)
- GAAS (Generally Accepted Auditing Standards)
- Journal Entry
- Ledger
- Net Income
- Payroll
- Profit & Loss
- Reserves
- Revenues
- Returns
- Review
- Sales
- Schedules
- Shareholder
- Software
- SQL (Structured Query Language)
- Subsidiary
- Total
- Workpapers

Accounting Data in Family Law Cases

Many family law cases include an issue regarding the value of a business as a marital asset. E-discovery can be the key to obtaining financial evidence.

Consider:

- Requesting all the periodic financial statements and financial reports used by management and/or provided to banks, insurance companies, governmental entities or others. Include periods before and after the period the matter is directly related to so that trends and unusual fluctuations can be identified.
- Requesting bank statements and statements of assets held at financial institutions.
- Requesting all income and property tax returns filed by the business and all filings with governmental or commercial entities that included financial information. Compare income tax returns to financial statements. Compare property tax returns to fixed asset listings and lease agreements.
- Requesting fixed asset listings as of various periods.
- Requesting all lease and rental agreements.
- Requesting all agreements with financial institutions related to borrowings, including lines of credit and mortgages.
- Requesting all insurance policies the company applied for.
- Requesting payroll registers and employment agreements.
- Requesting all emails and other work document that include certain accounting terms as described in the “Searching for Accounting Data” section of this chapter.

When reviewing the financial data of the company, carefully review the income and expense categories and compare to prior and subsequent periods to the one in question. Depending on managements motivation and circumstances there might have been a propensity to exaggerate or minimize income or expenses to affect the profitability reported by the business.

Byrne v. Byrne, 650 N.Y.S.2d 499 (N.Y. Sup. Ct. 1996)

The court allowed wife access to husband’s computer to search for the couple’s financial information and marital assets. The court reasoned it is similar to taking an inventory of a safe deposit box.

Disputes Involving Accounting Data

A common response to producing accounting data is that it is overly burdensome or it is not possible using the existing accounting software. While that might be the case, it usually warrants some further investigation.

All too often such responses reflect an ignorance of the accounting system, the accounting software database engine or a misunderstanding of what has been requested.

For example, the other side responds to a discovery request that their accounting software has no ability to export its data. This is, in all likelihood, just not true. Almost every accounting software includes the ability to export data in some format.

Further, if a commercial or open-source database engine is used by the accounting system, then it usually does not matter if the accounting system has an export feature as the data can be accessed by anyone familiar with that system who has adequate privileges to access the data.

Computer database and forensic accounting experts can help refute objections by the opposing party and assist with developing a reasonable discovery plan. You may also consider having the experts on both sides of the case confer to explore alternative solutions or work out a reasonable compromise.

TIP: Sometimes, software vendors try to hide the type of database engine they are using. For example, consider a small business accounting package that uses Microsoft Access as its database engine. Microsoft Access normally uses an “MDB” file suffix to identify Access data files. But the software vendor changes its Microsoft Access database file to use different suffix such as “ACC.” The data file can still be opened in Microsoft Access. If you suspect that this might be the case, just try opening the “ACC” file in Access.

TIP: So how can you find out what type of accounting or database software used by the other party? Review the “Jobs” or “Employment” section of the other party’s website. You may find job listings that solicit job applicants with experience with certain types of accounting systems or database. For more information on using websites as evidence, see “Websites as Evidence” chapter.

Producing Accounting Data

The methodology used to actually produce the electronic accounting data depends on the circumstances of the case. In many cases it will involve some level of negotiation with the other parties, but at a minimum you need to consider:

- What media will be used to transfer the data? Will it fit on a CD or a DVD? Do you need to use a portable hard disk?
- What documentation should accompany the data? Normally, the documentation would consist of:
 - A listing of the tables.
 - For each table, a listing of the fields with a notation as to the type of data stored in the field (text, date, number, etc...).
 - Control counts such as the number of records in each table.
 - A database schema, database definition file or other database documents. See “Databases for the Litigator” chapter for more information about these items.
- What format the data will be produced in. Possibilities include:
 - ASCII text files.
 - XML data (a type of text file) (see “Databases for the Litigator” chapter).
 - EBCDIC text files (used by IBM Mainframes).
 - Spreadsheet worksheets and workbooks (see “Spreadsheets as Evidence” chapter).
 - Commercial database formats, such as Microsoft Access and Microsoft SQL Server (see “Databases for the Litigator” chapter).
 - Proprietary data files (assuming the other parties can reasonably acquire the software to read the files).
- Distributing a number of sample reports generated by the accounting system is often very helpful (and should be included in your discovery request). Once the other side has received and processed the produced accounting data they can then compare the data to the sample reports and confirm that they have processed and interpreted the data correctly.

TIP: ASCII text files or XML are the most universal ways to transfer data. All Windows and Apple based computers can read ASCII and XML files. However, because they are the most universal they take the most work to then make them useful to the other side.

TIP: Making the data more or less difficult to use can be a part of litigation strategy. It might well be that the producing party goes out of their way to help the other side understand the accounting data. It might help the other side from misinterpreting the data, coming to the wrong conclusions or going down “rabbit trails”. On the other hand, making it more difficult might encourage the other side to spend minimal time with the accounting data, asking fewer questions about it and not using valuable litigation resources on it.

Processing Electronic Accounting Data

From the above discussions of accounting data it is readily apparent that for all but the simplest accounting data it takes considerable expertise and knowledge to work with accounting data that has been produced in e-discovery. This is generally the role of computer database experts and forensic accountants.

The general process in working with accounting data in cases involving e-discovery:

- If the data is in ASCII or some other “universal” format, it needs to be imported into a database program like Microsoft Access or SQL Server.
- Compare the data received to the documentation.
- Perform various queries on the imported data to test it for completeness and integrity, similar to the types of tests recommended above for when data is being produced.
- If the data was received in ASCII or other format, it usually needs to be “normalized” which is the process of restructuring the data to use linked tables as discussed earlier in this chapter.
- Create forms and reports to view and report on the data.

TIP: The above steps are similar whether you are producing accounting data or reviewing produced data.

Choosing an Accounting Expert or Consultant

When choosing a database or accountant expert consider the following:

1. Have they had significant database and accounting experience, in cases with similar issues to your case?
2. Does the expert grasp your case strategies and contribute useful information and strategies to assist you?
3. Is the expert an excellent communicator who will work effectively with the litigation team?
4. Does the expert understand the need to create a trail of the what was done with the data that can withstand cross-examination scrutiny?
5. Will the expert be an effective deponent and expert witness at trial?
6. Does the expert recommend methods that are efficient (maximum benefit for the most reasonable cost)?
7. Does the expert have outstanding credentials in the areas of database management and accounting?
8. Has the expert had previous experience working with cases involving e-discovery?

TIP: Finding competent computer database and forensic accountant experts is often essential in cases involving e-discovery. These experts are trained to locate evidence in computer databases generally, and in accounting databases in particular; and are trained in maintaining an evidentiary trail of the procedures performed on the data. Advanced database management skills are often required to answer complex questions about the data.