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## Features

# Electronic Discovery - Or, the Byte that Bit

*By George Socha*

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*So you finally got that electronic data from the lawyers on the other side.  
Now you need to use it.  
But how do you do that?*

## I. If You Need Help, Get Help

When that package of tapes and disks lands on your desk, you may not know how to what to do with – how to load it, read it, analyze it, or build on it. Step one: Get help. Help may be down the hall. Go to your information services department or your litigation support group. Perhaps other attorneys in your office have some experience. Maybe you have a legal assistant who can help. Possibly one of your secretaries was an Access programmer before coming to you or your firm administrator just finished taking an Excel course for a master's program.

If help's not down the hall, check outside the door. Contact your client. Turn to your expert witnesses. Talk with your litigation support vendor. And don't forget groups such as Computer Forensics, Inc. of Seattle and Ontrack Data Recovery, Inc. of Eden Prairie which face these issues regularly.

## II. Convert the Data

### A. Get the Data on a Useable Medium

Get the data onto a medium you can use. Electronic information comes on many media; data tapes, Zip disks, CD-ROM disks, 3.5 inch floppy disks, and 5.25 inch floppy disks are the most common. If you can't use that medium, get the data onto one your computer can read. If you receive a tape, you'll probably need an outside vendor to transfer the files. Zip

disks are simpler. The cost of Iomega Zip drives is so low you can keep one on hand just to for those purposes. CDs are even simpler; CD drives have become commonplace on PCs. 3.5 inch disks generally pose no problem. 5.25 inch floppy disks are becoming problematic. Older sizes of floppies can be even more difficult; once again, you may need to go outside resources.

## **B. Put the Data in a Useable Format**

### **1. "Useable" Formats**

Even if the data is in a format you already use, conversion may be necessary. The format may be too new. For example, you will not be able to open a Word 97 file with WordPerfect 5.1 or even Word 7 because those programs were written before Word 97 came into being. Data coming to you from a different operating system may also need to be converted. Finally, you may encounter problems of the Word-versus-WordPerfect ilk; word documents formatted using "styles" or containing complex tables may not be fully readable by WordPerfect (the same holds true when going from WordPerfect to Word).

### **2. "Unusable" Formats**

If you get electronic data in a format that you cannot use directly, convert the data to a format you can. This can happen with a variety of files including electronic mail files, database files from mainframe systems, and files containing data dumped from databases. Anyone who has undertaken this task can attest to its potential difficulty.

If you must convert data, get all the information you can about how the files were created and maintained. If you receive a ".txt" file that containing information from a database file, find out the make and model of computer the file came from, the name and version of the operating system the computer ran, the name and version of the database program used, the name of the database file, a list of all fields in the database, and descriptions of each field with the descriptions including the type, length and other characteristics of the field.

Get sample printouts. They may provide answers to some of the questions listed above, show how the data was arranged and used, and suggest what electronic data you should have received but did not.

### **3. Converting Files**

You may receive electronic data you can convert directly into database and spreadsheet programs such as Access or Excel. The first row in a ".txt" file may contain the names of the fields that need to be created. If that information is missing, ask for the field names and descriptions. Lacking that data, you may not be able to carry out a meaningful conversion. Some data, such as e-mail files, may not be amenable to immediate conversion. When that happens, get help fast.

## **III. Get the Right Software, Hardware and Personnel**

Get the right software, hardware and personnel to work with the format you choose. Access, Excel and Concordance meet most of our software needs. Hardware requirements vary greatly. While ten kilobytes of data can be handled easily, ten gigabytes poses substantial challenges in terms of hard drive space, backups, network traffic, and performance. Personnel requirements present the greatest challenge. You need know how to use the tools yourself or, failing that, rely upon someone who can use the tools for you.

## **IV. Check the Data**

Did you receive all the data you should have? Prepare an inventory and compare it against what you requested. Search the data for references to electronic files that should have been produced to you, but were not. Look for filename extensions associated with the types of files you want to find. Scrutinize spreadsheet or database files for links to other files not produced to you. In a database file, examine the tables, queries, forms, reports, macros and modules for references to other files.

## **V. Look for "Hidden" Data**

Electronic files often contain "hidden" data – information that does not show up on any printouts of the file.

Go to **File | Properties** for to find out when the file was created and last modified, who created it, what title was given to it or subjects assigned to it, who last saved it, and how many revisions it has gone through.

In word processing files, look for comments, check tables for formulas, and ascertain the source file for embedded objects.

In spreadsheet files, formulas are key; they show the true work being done by the spreadsheet file. Check for references to other files. Look for hidden columns. Watch for comments. Beware cells that appear to be empty but are not. We once discovered that whole sections of an expert's spreadsheet files had been whited out; the cells actually were loaded with information their expert had testified did not exist.

In database files, look for explanations of field names or contents; links to files you did not receive; tables, queries, forms, reports, macros and modules that you did not know about; and hidden fields.

## VI. Test the Data

Test the data for completeness, accuracy, and reliability. Test the data against itself. Compare the data to underlying documents. Finally, compare the data to data in other electronic files, the contents of other documents, and information available through the Internet.

## VII. Work the Data

Finally, put the data to work. Use spreadsheet programs to perform calculations, prepare pivot tables that quickly summarize data across several dimensions, develop charts to graphically present trends in the data, and map out information geographically. Use database programs to search or query information, perform calculations, and generate a broad range of reports. Share the data you receive and the knowledge you glean from it with you client, your experts, and other colleagues as appropriate. In the end, you will handle your case better.



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