Use of Microcomputer Time and Billing Systems in an Accounting Firm [2]: Certified Public Accountant Nadel, Robert B *The CPA Journal;* May 1987; 57, 5; ProQuest Central pg. 118

Use of Microcomputer Time and Billing Systems in an Accounting Firm The Importance of Time and

Billing Systems

Virtually every accounting firm has some kind of time and billing system to keep track of the time spent by partners and staff on chargeable and nonchargeable work. At one time, only the largest firms could afford to keep such records on a computer, but this situation has changed drastically. First, lowering computer costs made hardware justification economically feasible. Then, more and better computer software became available at reasonable prices. Today, complete computerized time and billing systems are becoming commonplace in firms of all sizes.

While the recording of employee and partner time is the basic function performed by these systems, this only lays the groundwork for many other uses. Reports are available which analyze employee utilization and efficiency as well as how profitable a client is to the firm. Reports can also be sent to clients describing work done on their behalf. Finally, these systems contain all the necessary information to prepare client bills.

CPAs have two things to sell to clients, expertise and time. Expertise is intangible and very difficult to measure, but time can be computed exactly and is a most perishable item. It is very easy to lose track of time unless an efficient system is used to record, collect and analyze it. Time not properly recorded is not properly billed.

Accountants have many ways of determining their fees to clients, but regardless of the billing method used, all firms have to know:

- What work was done?
- Who did it?
- Who was it done for?
- How much time did it take?

Computers are Not a Panacea

For a firm that has problems with their current manual time and billing system, using a computer to do this work may not solve their difficulties. If the current system is poorly designed and ineffective, the chances are that computerizing it will merely make it possible to create headaches at computerized speed. Much preliminary planning and work must go into the new system before a computer can be brought in, let alone before a computer can be effective. Specifically, the following steps must be taken:

- The time and billing needs of the firm must be carefully defined;
- Software must be found or developed;
- Users must be trained;
- The new system must be implemented.

After implementation the job is not over. Once a new system is installed, it must be continuously monitored and controlled. It cannot remain static, but should be updated to reflect the changing needs of the firm. Finally, staff training will probably never end, due both to system changes and normal employee turnover.

It is important to remember that even in a computerized time and billing system, the initial creation of input data will probably remain manual. The most common means of capturing this information is from employee-prepared timesheets which can then be keyed into the computer. The recording of timesheets is critical because any erroneous information at this stage is difficult to catch and if allowed to get into the computer, it can contaminate the entire system.

Filling out manual timesheets can be relatively easy when an individual spends large blocks of time on one job for one client. The task becomes more difficult and more error prone as a person's day is broken into a variety of smaller jobs for many clients. Since the latter is most characteristic of partner and manager time, input creation problems are most common with these individuals.

What You Must Know Before You Start Looking for Software

Before any thought is given to selecting or creating time and billing software, much preparatory work must first be done. The objective is to come up with a detailed list of requirements that the new software must meet. All involved individuals in the organization should be consulted, for often some of the best ideas can come from people lower down in the organizational hierarchy who are closest to particular tasks.

While it is advisable to shoot for an ideal system by including all identifiable needs, it is important to know which needs can be compromised if this be-

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comes necessary. Plans should be realistic in reflecting the firm's capabilities and resources. Designing the ultimate system which is too complex for the organization to master can be an invitation to failure.

Some suggestions for the kinds of things that should appear on a list of system requirements are indicated below:

Gather Significant Statistics. In order to guarantee software of sufficient capacity, certain statistics based on the expected number of transactions and records must be gathered or estimated. Such statistics would include:

• Number of staff people by level;

Number of clients;

• Number of chargeable and nonchargeable job function codes needed;

- Expected combinations of the above such as: number of function codes to be used per staff person; number of function codes to be used per client.
- Expected effect on all of the above due to planned firm growth.

Define Billing Procedures. It must be known what billing procedures and variations thereto the software must handle. These would include:

• The method or methods of billing: fixed or retainer billing; fixed or retainer billing with year-end adjustment for actual time spent; actual time spent.

• Frequency of billing: fixed intervals (monthly, quarterly, etc.); progress billing; billing on completion of job.

• Variations in bill contents: simple statement, "For professional services rendered" and a single dollar amount; detailed listing of all people who served the client during the billing period, the functions they performed, hours for each function, billing rates and total dollars; summary data somewhere between the above two examples; show only current period detail with previous unpaid balance carried forward; show details of all unpaid time.

• The need to send statements of account in addition to bills: all clients; selected clients; all or selected clients at selected times.

• Service charges on past due accounts: define what is considered past due; charge to all or selected clients; same charge to all or must it be variable.

• Billing rates: assigned to specific individuals; assigned to specific job classifications; possible two or more

rates for an individual; special one-time billing rates.

Determine internal reporting requirements.

- All possible report combinations: dollars/hours by client; dollars/ hours by staff member; dollars/ hours by function code; combinations of the above.
- Report space needed for descriptions of services rendered;
- Need for one-time custom reports;
- Report frequency.

Determine client reporting requirements.

> Similar decisions to internal reporting above.

Lay out format of staff and partner input timesheets.

- Design and contents;
- Frequency of preparation.

Will the time and billing system have to tie in with other systems?

- Payroll;
- Accounts receivable;
- Staff scheduling;
- Word processing and mailing label production;
- Spreadsheets;
- Budgets;
- Personnel management;
- Tax return preparation and tracking.

Define any special features needed in the time and billing software.

- Built-in accounts receivable;
- Work in progress inventory;
- Staff productivity analysis;
- Client cost effectiveness;
- Automatic repeat billing, such as for retainers;
- Employee expense accounting;
- System access protection through passwords or other means;
- Built-in budgets;
- Ability to work with networked computers;
- Ability to handle client advances;
- Long term retention of transaction detail;
- Comparisons of current to prior year;
- Ability to handle multiple CPA firm offices;
- Ability to handle multi-corporate clients: maintain separate data by corporation; consolidate multiple corporations into a single bill.

What to Look for When Selecting Software

First and foremost, the prospective software must be carefully analyzed to see that it meets the firm's needs and specifications previously discussed. As already indicated, compromises may have to be made, but these should be thought out beforehand. Even if a software system meets the organization's information needs, it still must be subject to further scrutiny to see that important generic requirements are also met. These are discussed below:

There must be adequate control over data entry accuracy. The entry of erroneous data can destroy any system. The software should be able to control data entry accuracy through some or all of the following controls:

• Field entry controls that will indicate if an operator is attempting to enter alphabetic data into a numeric field and vice-versa. Also the program should prevent an attempt to enter data too large for a selected field;

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• Data entry feedback, which works as follows. When an operator keys in a staff member's code, the name of that member appears on the screen and can be visually verified. The same technique works with the entry of client numbers and function codes;

• Computer-generated totals of data entered which can be compared with manually prepared proof totals from the input documents.

The software should be reasonably easy to use.

• Manuals should be clear and understandable;

• Use of menus can greatly aid new users of a system. However, when a user becomes proficient, excessive menu use can get in the way, cause frustration, and slow things down. The ideal system has menus that can be bypassed or tailored to operator proficiency;

• Help should be available in manuals, but it is advantageous to have onscreen help also. This enables the op-



erator to push a key and cause a help message to appear on the screen. The best kind of help screens are contextsensitive, which means the help message is specifically related to the task the operator is doing when the help is requested;

• The use of a technique called "windows" also can make the use of a software package easier. This enables the user, while in the middle of a computer task, to inquire for information in a file not then being used. The inquiry takes place and the answer is displayed in a small "window" on the computer screen. The original program being used is not disturbed by the window.

For example, during a time and billing data entry session the operator may want to look at some data from a particular client, function or employee file. Or they might want to inquire into a prior year or prior period file. With appropriate windowing, the information from such files can be displayed without disturbing the running program;

• Ease of use often depends on whether or not the logic of a program conforms to the way an accountant thinks. If the program steps seem to flow in a logical manner when studied by an accountant, then it will be much easier to understand and use. If it seems illogical, this is an indication of potential trouble down the road.

The software system should be easy to maintain. Maintenance of a system deals with the ability to add, delete and change data. It also relates to the correction of errors previously entered. Maintenance should be easy to do, and should be so structured that the maintenance process will not create additional errors while it is correcting previous ones.

• Better systems will permit maintenance to be done on the fly. This means that if, for example, in the middle of a timesheet entry run a new client has not been set up in the system, this can be done without having to leave the entry program. Without this facility the entry program would have to be terminated, a separate maintenance program used to put the client in the system, and then the entry program restarted;

• Maintenance also includes the transfering of data from one client to another. This can occur in error situations as well as with multi-corporate clients;

• Important to all maintenance op-

erations is the creation of some type of audit trail whenever data in a system is changed or removed. Without such controls, the door to fraud or unauthorized manipulation of data would be open.

The prospective software should be compatible with the hardware to be used. Computer software and hardware form an integrated entity and each must be compatible with the other for a system to work. Some specific compatibility questions to be answered are:

• The particular computer to be used must be basically compatible with the software;

• Even if basically compatible, the computer must have: sufficient internal storage; sufficient disk storage; a compatible graphics card to control the computer monitor.

• There must also be compatibility between the time and billing system and the operating system to be used.

There should be sufficient growth potential in the software. As a firm grows, the software package should be able to handle an increase in file sizes and number of transactions. This does not mean that a package must have infinite expansion possibilities, but it certainly, under normal circumstances, should be able to handle the firm's needs for at least 3 years. Often software can be purchased in modules so that the user need only buy and pay for what they need at the time they need it. As needs grow, additional modules can be added.

Program vendor should offer sufficient support. Vendor support implies that the vendor will be available to help the user when needed. This includes training of personnel, aid in installing and starting up the system, as well as the ability to get the user out of trouble when difficulties occur.

• Vendor support may come from the local supplier of the software, or from the creator of the program who could be located thousands of miles away. Local support is better for all the obvious reasons, presuming that the local vendor has appropriate knowledge;

• In many instances, the ability to get advice and counsel over the telephone is all a user may need. It is helpful if such support is available through an 800 number, particularly if the source of support is across the continent. However, the key element is how many phone lines and support personnel the vendor has. No matter how good they may be, experts are uselss if you are hung up by busy phone lines and cannot reach them; • An informal but very potent form of support is from other users of the software. CPAs are usually glad to help each other and share both their problems and solutions.

Off-the-Shelf v. Custom Software

Most time and billing software in use by accounting firms today consists of off-the-shelf, pre-written packages (see Exhibit 1). Some firms however, have created their own software, either writing it themselves or hiring programmers to write it for them. Off-the-shelf software has the following advantages:

• It is cheaper;

- It lends itself to pre-testing before installation since it already exists;
- It usually has an existing track record with other users.

Custom software really has only one advantage, but it is a potent one; it can provide exactly what the user wants with no compromises necessary.

Which way should a potential purchaser go? A general rule of thumb is to consider off-the-shelf software first. However, if user needs cannot be adequately met by such a product, or extensive compromises must be made, then the custom approach should be considered. In addition, a middle course may be sought. Many time and billing packages have powerful built-in report writers that can produce almost custom results. Also, some package vendors will alter their packages to suit user needs, though there are usually limitations to how extensive these modifications can be. Finally, through the use of database programs such as Dbase III and Rbase System V, a virtually custom program can be created.

Conclusion

Time and billing systems are important to the practicing CPA; important enough to justify the planning, thought and analysis that is necessary to select and implement them. Many firms of all sizes have proven to themselves that these systems can provide real benefits in more efficient practice management with a resultant increase in profitability. Ω

Robert B. Nadel

EXHIBIT 1

A SAMPLING OF TIME AND BILLING PACKAGES (Alphabetic by Vendor)

Practice Management

Accountants Microsystems Inc. 3633 136th Place S.E. Bellevue, WA 98006 206-643-2050

Practice Management System Commercial Logic, Inc. Norwich, VT 05055 802-649-1352

Time, Billing and Client Receivables Computer Associates 2195 Fortune Drive

San Jose, CA 95131 408-942-1727

Time and Billing CPAids 1061 Fraternity Circle Kent, OH 44240 1-800-2cpaids

Time & Billing Solution Creative Solutions, Inc. 230 Collingwood #250 Ann Arbor, MI 48103 313-995-8811

Timetrak Data Group, Ltd 250 N. Cicero Avenue #103 Lincolnwood, IL 60046

312-675-1620 **TCB-11** Franklen Computer Systems 456 S. Central Avenue Glendale, CA 91204 818-247-0400

TKR4

E.F. Haskell & Associates 110 E. Missouri #760 Phoenix, AZ 85014 1-800-732-3688

Practice Management and Accounts Receivable

Informatics General Corporation MCS Division 2400 Lake Park Drive P.O. Box 723597 Atlanta, GA 30339 1-800-241-3306

The Managers

Samuel Klein and Company 1180 Raymond Blvd. Newark, NJ 07102 201-624-6100

Timeslips

North Edge Software Corp. PO Box 286 Hamilton, MA 01936 617-468-7358 Deluxe Time and Billing System Norwesco Computing, Inc. 1800 130 Avenue Bellevue, WA 98005 206-881-5111

Time Billing Open Systems, Inc. 6477 City West Parkway Eden Prairie, MN 55344 612-829-0011

Glows Practice Management

Orion Microsystems, Inc. 910 Lafayette Building 5th and Chestnut Streets Philadelphia, PA 19106 215-928-1119

PASS Time and Billing

Plenary Systems, Inc. 11969 Piano Road #130 Dallas, TX 75243 214-644-8484

PACS Time and Billing

Public Accounting Computer Software Ltd. 601 West Cordova Street Vancouver, BC V6B 1G1 1-800-663-0153

Time & Billing

R & D Software PO Box 80726 Sioux Falls, SD 57116 605-336-0344

Timekeeper

Rightside, Inc. 7737 Fair Oaks Blvd. Carmichael, CA 95608 916-484-6446

Professional Time Billing

Satori Software 2815 Second Avenue #590 Seattle, WA 98121 206-443-0765

Time Accounting & Billing System

Software Technology, Inc. Century Square Court 620 North 48th Street Lincoln, NE 68504 402-466-1977

Professional Practice Management TCS Software

6100 Hillcroft #600 Houston, TX 77081 713-771-6000

Professional Time & Billing Plus Unilink P.O. Box 1087 Jackson, WY 83001 1-800-323-1666