

Developing Effective Tax Management Systems

Automating manual tasks through property tax management software can help you reallocate staff time, reduce costs, and create a wide range of management reports

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THE WORKING ENVIRONMENT of the corporate property tax manager has never been more demanding and challenging than it is now. During the 1980s, feverish buying and selling of companies and divisions through debt funding, instead of equity, often led to inflated valuation of assets. Added debt service meant lower income tax exposure, and many companies found themselves paying more in property taxes than in state and federal income taxes. The federal government began shifting the funding burden to state and local governments for federally mandated and formerly subsidized programs in the mid-1980s, which in turn created more pressure to raise local taxes.

Now, in the early 1990s, we face economic recession. Local income and sales tax collections have fallen drastically in most areas of the United States. Companies are adapting by cutting expenses, particularly overhead. Unfortunately, most corporate property tax departments are considered part of overhead—instead of being considered part of the solution to reduce corporate expenses by minimizing the company's legitimate property tax burden. As a result, the typical corporate property tax manager must control an expense that is under extreme pressure from local governments to grow, and do so with decreased internal staffing. The solution is to increase efficiency.

There is perhaps no better way to increase the efficiency of the property tax department than to automate functions commonly handled manually. The resulting time savings permits existing managerial talent to concentrate on alleviating unfair and inequitable assessment situations, thus reducing the company's expenditure. Nearly as important, a comprehensive

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property tax management system provides valuable supplemental information that cannot be generated cost effectively in a paper file environment. Since the corporate property tax manager often acts as an "information broker" between assessment authorities and his or her company, any improvements in the flow and quality of information benefits all parties and ensures fair and equitable property taxation.

BUY OR DEVELOP?

There are two basic types of property tax management software. The first and most common systems on the market are described as management and administration systems; essentially, they store, track, and report information dealing with assessments and taxes. The second type of system expedites compliance functions, generating personal property renditions and returns.

A third option is to develop a custom system—a potentially costly and time-consuming choice. Before undertaking option three, consider purchasing an existing canned software system. There are currently four pre-programmed property tax management systems available that cost between \$900 and \$15,000 per PC installation. Three systems are management and administration oriented; one is a compliance system. The quality of the systems varies as much as their prices, so it is recommended that the user thoroughly test actual working models of each before purchasing one. It is also essential to check the vendor's reference licensees.

Purchasing an existing system has some obvious advantages over a customized system. The first is cost. Even the highest-priced system, at \$15,000, costs far less than programming and testing an inhouse system. These systems require six months to a year of system analyst and programmer time, as well as a property tax manager's time to assist in the development. A second advantage is availability; a canned system is ready to go immediately.

The primary advantage of developing a customized property tax management system inhouse is that you can get exactly what you want—or close to it. Canned systems are designed and programmed by people with specific ideas about the optimal way to manage the property tax function. Their attitudes and assumptions may not match your corporate management style. The best canned system can only hope to "please most of the people most of the time." Software vendors rarely modify a canned system for individual users, something that can be done relatively easily with an internally developed system. Specific modification becomes a hot issue when the ability of a system to interface with existing corporate systems is of paramount importance.

Whether to purchase or to develop a property tax management system is a subjective decision. If financial resources are limited, or the cost-benefit ratio is low, a decision to purchase the system that most closely matches current management style is best. If the cost-

benefit ratio is high, and company-specific features are required, a decision to develop a custom system will be best. A third alternative is possible. Some vendors of canned property tax management software may be willing to sell the basic source code of their systems, which corporations may then modify to meet their specific requirements. This alternative lowers the initial programming and design costs, gives immediate availability to the user, and still fulfills the user's requirements. The decision whether to develop or to buy a property tax system boils down to each company's cost-benefit threshold.

A TYPICAL DEVELOPMENT PROCESS

Most companies establish a formal procedure to determine which application of those proposed gets designed, programmed, tested, and most important—finished. This process is typically a seven-step operation:

- Cost benefit analysis
- Priority committee
- System design
- Programming
- Alpha test
- Refinement and debugging
- Beta test and finish

Cost Benefit Analysis

The first step in the development process is to measure the expected returns of the proposed system against its expected cost. At this point the corporate property tax manager must do some serious thinking about what he or she wishes to accomplish with the new system and establish realistic and quantifiable benefits. The proposed system must be sold to Management Information Systems (MIS) and the senior managers who compose the MIS Priority Committee.

After drawing up a wish list of expected benefits to the property tax department, the manager should approach people in related departments to develop a consensus of allies. Benefits to the property tax function are the first priority, but secondary benefits to related departments may be the added value that sells the idea to MIS and the Priority Committee. Benefits from a new property tax management system include:

1. Accounts Payable may be able to process property tax payments faster.
2. The Real Estate Department will have a detailed database with lease abstracts and asset inventories.
3. Fixed Asset Accounting will not be pressured for reports every January and March.

4. Budget and Planning will have faster and more accurate forecasts of property tax liabilities.
5. Even the Operations Managers will profit by not receiving "property tax surprises" which often lower expected year-end bonuses.

Following the formation of a consensus, the property tax manager must detail the hard-dollar savings that will be realized in the tax department. Too often the management style of the property tax function is reactive rather than proactive. Due to the lack of staffing or other resources, action is taken after a problem is discovered, rather than when it can be anticipated and thus prevented. In the long run, reactive management is far more expensive than proactive management. For example, if a company has difficulty in paying property taxes or filing personal property renditions on time, serious penalties ensue. Having a property tax management system that isolates missing tax bill accounts or generates personal property renditions will eliminate this problem. This is a hard-dollar benefit.

Another hard-dollar benefit results from time shifting and staff reallocation. Typically, preparing and filing personal property returns requires a substantial investment of personnel time without significantly reducing the company's total property tax dollar exposure. An automated rendition system will allow the property tax manager to reallocate people to reducing excessive personal property tax assessments or to supporting managerial talent in the real estate area. Any reallocation of personnel from a function that can be automated to a function requiring human judgment and action will generate additional returns to the company. In time shifting, certain tasks are accomplished by the property tax system before a specific deadline in either a piecemeal or a comprehensive fashion. For example, by keeping an updated database, the property tax system can generate repetitive senior management reports at will. By estimating next year's property tax increase during the payment process of this year's property tax bill, an accurate budget report can be generated within minutes of its deadline. Overall, the two most significant savings that a property tax management system will achieve are reduced staffing and freeing expensive management talent to work in areas that actually reduce troublesome assessments, thus bringing hard-dollar savings to the company.

Once these savings are reasonably estimated, the property tax manager should meet with a knowledgeable MIS systems analyst to present an informal proposal describing the preliminary benefits that the system will give the company. This meeting has two purposes: (1) to gain the support of MIS for the creation of the system, and (2) to establish the capabilities of the MIS department and anticipated cost of the system development. After discussing wish list capabilities with a systems analyst, the property tax manager may have to realign expectations. If the MIS capabilities and preliminary commitments match the system objective, and if the anticipated benefits outweigh the anticipated cost, then a formal

proposal, delineating the system's costs and benefits goes to the Priority Committee. This is also the time to evaluate the decision to purchase a canned system or to develop one in-house.

Priority Committee

The Priority Committee is usually composed of members of MIS and may include senior management from other disciplines within the company. The costs and benefits of the proposed property tax system are weighed and evaluated against proposed projects from other departments. The decision to proceed, or when to proceed, is based on comparative merits of the various projects and the time resources available in MIS. Although a proposed property tax system may be approved by the committee, it is not uncommon to see it temporarily shelved midway through because of the emergence of a project with a higher priority.

System Design

At this stage the database structure and logic are formulated using criteria established by the property tax manager. The MIS systems analyst thoroughly debriefs the property tax manager, with input also provided by people from allied departments if their existing applications will interface with the property tax system. This is perhaps the most crucial part of the development process. All major decisions are made regarding system features, report generation, database limitations, and general information flow. The systems analyst in charge of the project must be educated in all aspects of the property tax function, from clerical-level duties to managerial responsibilities to the property tax informational requirements of senior management. It is the systems analyst's job to mesh the system into the managerial style of the company's property tax department.

When a company fails in its attempt to create a comprehensive property tax system, the failure can be tracked back to the initial design process and the fact that a property tax professional was not involved. Unfortunately, failures are usually not discovered until the system is thought to be complete and considerable time and money have been expended.

Programming

The programming stage is simply the process of writing the computer code according to the system design established by the systems analyst and the property tax manager. The property tax manager has less to do during this phase, but should touch base often with the systems analyst to see how the project is proceeding. This is also a good time to begin gathering data for later input.

Alpha Test

Once the programmers are finished with their first-run code, the raw system is ready for an alpha test. An alpha test is the first trial of the new system designed to push the envelope of its capabilities. With this in mind, the best alpha test will utilize "worst-case scenario" data sets. For the testing of a management and administration system, properties located in the states of Texas and California would be most appropriate. Texas, with multi-jurisdictional tax collections, would test the ability to handle jurisdictional-layered assessments and taxes. California, with its Proposition 13 supplemental assessments issued after a change of control or ownership, would test the ability to handle time-layered assessments and taxes. Often in California, the Proposition 13 transfer is not assessed until well after the actual transaction, and the base year value is applied retroactively along with supplemental tax bills. It is a complicated task to ensure that no overlapping of taxation transpires with the supplemental value notices and tax bills. A good system will be able to track both the original assessments and supplemental assessments and match them to the appropriate year supplemental taxes.

When alpha testing a compliance system, which primarily creates personal property returns, one might use applications for the states of Ohio and California. With its complex return—based on requirement to file a consolidated state return for all company locations within the state—Ohio is a good test for a compliance system. California has county returns that vary little and so is a good test for audit tracking and reporting since most companies are subject to personal property audits every four years.

The alpha test is the first opportunity for the property tax manager to use the system and correct any deficiencies. Special attention should be paid to data input, report generation, and online screens. System features and capabilities should be compared against the criteria established in the design phase. Any inconsistencies should be reconciled with MIS, and changes made.

It is a rare case where the first run of system code is found to be problem-free. Although the programmer will make every attempt to produce error-free code, the ultimate responsibility to detect errors rests with the ultimate user. Most problems in custom applications are the result of inadequate communication between the user and the code writer. Field variables must be defined explicitly. For example, the programmer may misinterpret the meaning of "assessed value vs. assessed market value," or between "assessment ratio and an equalization factor." Some of the most valuable data is not input but generated by the system. It is imperative that the code writer and systems analyst be familiar with field definitions. It may be necessary to check manually the field calculations for all screens and reports before a system is completely alpha tested.

Refinement and Debugging

At the conclusion of a thorough alpha test, the system goes back to MIS for debugging and refinement. Any significant changes are made at this time, along with error and definition correction.

Beta Test

The beta test uses an actual database set. It is the final test before the system is ready for general use as an operating management system by the property tax department. If all goes well after the beta test, the system is released. If not, the system goes back to MIS for further refinement and debugging.

THE MANAGEMENT AND ADMINISTRATION SYSTEM

A management and administration system can function as the foundation of a well-run property tax department. Its primary objective is to track and report assessments and the payment of tax bills. Exceptions to the norm are isolated and brought to light for appropriate action by management. The system should reflect existing management style and philosophy, and complement the efforts of the property tax manager. A good management and administration system performs the following functions:

1. Serves as an inventory and tracking device for assessment and tax accounts.
2. Establishes an inventory and description of physical real estate and personal property.
3. Facilitates the day-to-day administration of the property tax function.
4. Injects control while maintaining flexibility for the property tax management function.
5. Interfaces with existing corporate systems, such as accrual system, accounts payable, etc.
6. Provides both online and hard copy reports with user-defined criteria.
7. Contains custom report generation capability.
8. Isolates exceptions for management correction.
9. With proper use of the report capabilities, allows the user to anticipate areas of concern.

Logic Considerations

The corporate property tax function, in its most simplistic description, receives assessment notices that are checked for fairness and receives tax bills that are checked for correctness and paid. Facilitating these two basic activities is the primary function of the management and administration system. The system receives input of raw information and outputs processed information in a more useful form that parallels the human management function. For

example, one time-consuming task of the property tax function is comparing each year's assessments and tax bills with the previous year's figures. The system can do this automatically and highlight exceptions requiring action.

No recommendation will be made here regarding the proper relational database program to create a good professional property tax management system. The real magic of such a system lies not in the actual data input into the system, but can be found in the relationships between the input data. For this reason, it is strongly recommended that the basic input data and database structure remain simple, and that the system design concentrate on the relationships between data. Such an approach facilitates easy data entry and maintenance, lowers storage requirements, and a lower user learning curve.

The foundation of the database structure is the individual assessment and accompanying tax bill, commonly referred to as the "parcel account." This should be the basis of the entire system. All peripheral information must relate back to the parcel account. The parcel account must be maintained as a truly unique field, with no chance of corruption by related fields. Although the assessment and tax bill is generally identified by the assessor's parcel number, it is advisable to add the name of the jurisdiction (Jackson County), type of jurisdiction (County), and state (Oregon). The use of the actual parcel number along with the name, type, and state of the assessing and taxing jurisdiction will facilitate the identification of the individual account. It will also allow the delineation of multijurisdictional assessment situations such as those found in Texas and other states.

The simplest overall database structure begins with the parcel account split into three distinct types of information: general parcel information, assessment information, and tax information. The parcel account is indexed "up" to a location or whole-property database. Although this may seem to be a reverse approach, consider this—very often corporate properties have several parcel accounts, several real estate accounts, a personal property account, or a mixture of both. To the user, the most important database is the one first visible in the system—the general data related to the location. Secondary to this are the parcel accounts appended to that location. But for database design purposes, the starting point is the parcel database.

A third type of database to consider is the code file. Code files are database files which act much like "look-up" tables in spreadsheet programs. Codes are abbreviations of field data that allow the system to pack much more information into reports and screens. They can be used for a large variety of fields and facilitate report generation.

At both the design and programming stages, the procedure should begin with a simple design of the location, parcel, and code database structures. Once these are created and indexed (or bridged) together, one should consider adding related modules to the system. Related modules may include the ability to annotate word messages tied to specific locations or parcels, or valuation capabilities, or automatic look-up of the assessor's or tax collector's

address and phone number. These related modules are any small sub-programs that enhance the usefulness of the system and may be incorporated into the report capabilities.

Suggested Report Categories

The culmination of the system's capabilities lies in its report writer. The most useful system will allow the user to define specific criteria for report output. For example, the user may want to run a budget report, but only for those locations in the state of Texas that received an increase in assessed value in excess of 18 percent, where land area is less than 2.0 acres and where the property use is for warehousing. It is important to establish the criteria option because it is a rare situation where a user will want to run a specific report using the entire database. Most reports are specific to time, division, or state. Following are some suggested report categories:

Control Reports. Control reports are distinct lists of database contents which allow the user to view a hard copy of fields for correctness and possible changes.

Calendar Reports. Calendar reports list appeal deadlines, missing assessment notices and tax bills, jurisdictions up for reappraisal for a certain year, personal property rendition filing deadlines, and planning for such deadlines.

Budget/Summary Reports. These are straightforward reports defined by a time range and criteria specific. The user may want a budget report for one division for the fiscal year 1993, and eliminate other divisions or time periods. An executive budget summary report is quite useful and summarizes the place, quantity, and time of the property tax exposure.

Analysis Reports. This category typically establishes criteria for corrective action in both assessments and taxes. For example, one recommended report may correlate the operational performance of the subject property with the assessed market value and generate a performance ratio, which will then be compared with that of other company properties within a particular state or jurisdiction. With this report, management talent may be concentrated first on the most exceptional assessment problem.

Profile Reports. Profile reports show a summary of all historical assessment, tax, and physical information found in the database for a particular location or parcel. Relational information generated from input fields is also included, such as variance of assessments for the last four years, or the taxes per square foot of building. These reports are quite useful for field tax reps or outside consultants.

Administration Reports. These reports facilitate the daily tasks of the property tax manager. Two reports in this category should deal with the acceptance of an assessment or the authorization of payment of property taxes. They will show the variance from the prior year as well as variance between the assessed value and the company's opinion of market value, or actual taxes as they vary from established budget amounts. One useful report may be a jurisdictional check request report, which will summarize all due parcel tax bills within a certain tax collector's jurisdiction. This will allow one payment check to be produced for all company liabilities in that area. Another useful report may be an appeal docket listing all properties under appeal by jurisdiction, or a savings report for all culminated appeals.

Report Generator. This is actually an added module to the overall system that allows the user to create custom reports not found in the other report categories. It is imperative that the report generator be easy to use for all levels of users, and contain the same criteria-specific ability as the prewritten reports.

THE COMPLIANCE SYSTEM

The compliance system processes information from the company's fixed asset system into a valid personal property return. The key concept here is valid. Too often, attempts at developing compliance systems fail because the new system does not have the ability to eliminate nonassessable, exempt, or ghost assets from the resulting personal property return. If the compliance system just transfers data from the fixed asset register into an assessor-acceptable return form, the system is most likely increasing the company's personal property tax liability.

The compliance system can be interfaced with the management and administration system by bridging with the assessor's parcel account number. The two systems are best developed and operated separately since they perform inherently different functions.

The second purpose of the compliance system is to provide back-up documentation for personal property audits. The system must be able to generate source documents for the past four years' worth of renditions with delineating reports of both assessable and nonassessable assets.

The third purpose of a good compliance system is evaluation of personal property for comparison with assessed value. The system should have valuation modules that apply trending and depreciation tables from the assessor's guidelines as well as those from accepted industry sources. By comparing the depreciation, cost indexes, and scrap values from published sources with the assessor's guidelines, the property tax manager can build a good case for rectifying any unfair assessments. This is particularly important in areas of high-tech testing and computer equipment. Too often, advances in technology and the resulting

obsolescence in older equipment is not realized in a timely fashion by assessment authorities.

Overall, a good compliance system must have the following capabilities:

1. Download data from the company's fixed asset system.
2. Delineate between real and personal property, and assessable and nonassessable personal property.
3. Evaluate personal property according to each jurisdiction's guidelines and compare it to market value as determined by accepted industry sources.
4. Provide a historical register of assets for audit support and reconciliation purposes.
5. Interface with the management and administration property tax system.
6. Track asset transfers.
7. Generate a valid personal property return on a form acceptable to assessment authorities.

Logic Considerations

Like the management and administration system, the foundation of the compliance system is the unique assessment parcel account number. This account number will also serve as the bridge between the two systems. The compliance system should be able to access general location information. This general location information is used by the compliance system in creating the personal property rendition. In essence, if the two systems are interfaced, it may not be necessary to recreate a general location and parcel database in the compliance system since it already exists in the management and administration system.

Once the general information database is created or interfaced, the fixed asset storage database must be formulated. Particular care must be taken with this step for two reasons:

1. Nonassessable assets must be separated from assessable items and recategorized. Although the user's company may have very specific asset categories, they may not be applicable for property tax assessment purposes. The system must provide for both global and individual manual recategorization. There may be no alternative to some manual recategorization by a property tax professional.
2. Valuation by both assessor tables and industry standard tables requires a multitude of look-up tables, which will be accessed by asset category and applied to the particular asset.

The user must have access to a primary report that lists each line item asset and the appropriate trend tables and depreciation schedules. This primary database is the beginning point for all other reports generated by the system. Asset line items must be distinguished as real or personal categories, and further delineated by assessable and nonassessable categories. In some cases the user must be able to override the automatic schedules to reflect extraordinary obsolescence issues for special-use property. The converse is true where some jurisdictions apply a "trade-level adjustment," which is a premium applied to an asset cost

for machinery and equipment produced by the taxpayer for internal use, or leased to outside third parties.

Once the primary location/parcel database is set up and the asset database is in place, it is necessary to create the trending and depreciation databases. The largest hard-dollar savings will be found by comparing the final assessed valuation with the compliance system's computation of what the assessed value should be; and the comparison of value by industry standards. This area of the compliance system will require yearly maintenance.

RECOMMENDED REPORTS

Rendition and Summary Report. Summarizing assessable personal property by category and year of acquisition is the primary objective of the compliance system. A summary is printed on a form acceptable to the assessor, along with general parcel information, usually disclosed on the first page of the return. Although many states prescribe a standard form for all counties, a generic form is often acceptable even to jurisdictions that issue their own form.

Valuation Report. This type of report compares the system-generated assessed value and industry standard market value with the assessment based on the rendition. A summary list of exceptions should be generated for action by the property tax manager.

Audit Tracking Report. This provides documentation to support previously filed renditions in audit situations, delineating assessable versus nonassessable items, real versus personal items, any extraordinary obsolescence issues, and property transfers.

Transfer Report. This lists property transfers between locations and is most useful when dealing with leased equipment and machinery, and audit tracking.

Exempt Property Report. This should be used to control and update asset categorization on a yearly basis since state statutes regarding exempt property often change.

SUMMARY

The current economic recession is pressuring property tax professionals to increase efficiency. Developing a comprehensive property tax management software system can increase management efficiency by shifting staff duties so that problem assessments can be addressed and remedied.

The corporate software development process begins with cost-benefit analysis. Benefits to the company may be tangible hard-dollar savings in both taxes and staffing costs.

