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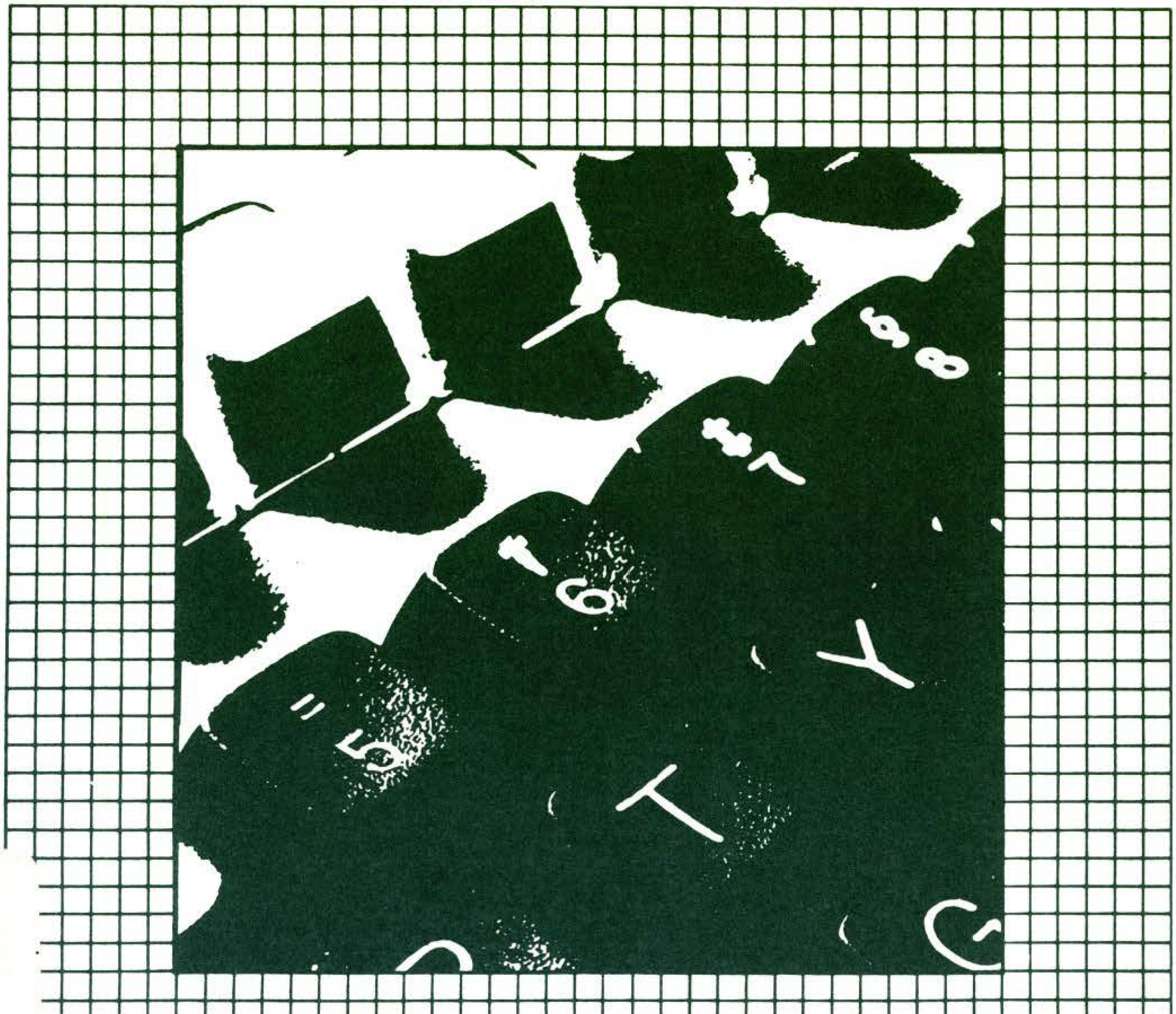
A REVIEW OF ACCOUNTING SOFTWARE FOR TRANSIT



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A REVIEW OF ACCOUNTING SOFTWARE FOR TRANSIT

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1. INTRODUCTION

The last several years have seen explosive growth in the capabilities provided by microcomputers. We now have desktop processing capability equivalent to what once required a "mainframe" computer. Paralleling this increase in hardware capability has been tremendous growth in the availability of "package" software for general business applications: general ledger; accounts payable; accounts receivable; payroll; order entry; and inventory. Much of this software is oriented towards small business, with each software vendor incorporating the range of capabilities it believes can attract the largest possible market. The availability of software packages for these applications makes it possible for a transit agency to easily automate many of its functions.

Sorting through the capabilities of the many packages to select the one which can "best" serve your organization, however, can prove to be very time-consuming and frustrating even for the experienced computer user. For the novice, it can be overwhelming. This report helps eliminate some of the mystery associated with the selection of general accounting software for use on microcomputers. It does assume that the reader has a basic understanding of the general ledger, accounts payable, and accounts receivable functions. It details the transit agency requirements for each of these functions and describes the specific items that make a transit agency different from commercial enterprises. Included with the discussion of requirements is a description of the features a software package should have to address each requirement.

This look at a transit agency's accounting requirements is followed by a discussion of the subjective factors involved in software selection. It explains what to look for and expect in the areas of training, support, and documentation, and describes how to proceed with the selection process. Sources of information about microcomputer software packages are presented along with a discussion of the types of material from which to obtain detailed package information. The appendix contains a set software selection checklists which help in the evaluation of package software. To start the process, checklists have been completed for a number of available general ledger, accounts payable, and accounts receivable packages.

The software reviewed generally operates on a stand-alone microcomputer. Only now the packages are being modified to operate on a local area network. Therefore this report is oriented towards the "small" transit agency. "Small" relating more to the complexity of the accounting situation than to the number of buses operated. The requirements are basically applicable to all size properties. Whether a microcomputer is the right solution depends on factors such as the number of accounts and vendors, volume of transactions, and reporting needs. In general, when the processing volumes exceed a thousand transactions per month the organization is sufficiently complex that more than one person at a time needs to access accounting data. At this point, the networking of microcomputers or a minicomputer solution rather than a stand-alone microcomputer should be considered.

2. ACCOUNTING SYSTEM REQUIREMENTS

The key to selecting computer software is determining whether a specific piece of software meets the needs of your organization. Your needs reflect all of the work you must accomplish in a day to carry out the business of operating a transit property. For this report we will limit our discussion to your general accounting functions -- general ledger, accounts payable, and accounts receivable.

As a small transit property you have many accounting needs or, as termed by software vendors, requirements, which are common to most businesses. However, there are also requirements which are unique to the transit industry, such as UMTA Section 15 reporting, which must be accommodated by your accounting system, whether it is manual or automated. This section identifies the accounting requirements which are common to managing a transit property and describes the features and characteristics accounting software should include to address these requirements.

The requirements analysis discussion is presented by general accounting application area -- general ledger, accounts payable, and accounts receivable. Taken together, these three accounting applications probably represent only a small portion of the functions being considered for automation. The interaction between all functions is a key component in selecting a package for each application. Given equivalent capabilities, "integrated" software which includes the interfaces or linkages between applications is a better selection than mixing and matching packages from different vendors to get the best software for each application.

The discussion of requirements and software features is presented in terms of "must have" or "required" capabilities and "desirable" or "nice to have but not absolutely necessary" capabilities. The required features represent those without which a successful implementation of the software at a transit agency is not possible. Desirable features are ones which make the software more useful to the agency; not having such a feature does not make the software inappropriate.

GENERAL LEDGER

A general ledger is used to accumulate information about the financial status of an organization and to prepare the financial reports necessary to manage the organization. Usually the intent of automating the general ledger is to replace a manual recordkeeping system with one which permits more timely preparation of financial statements and reports and which reduces clerical errors. To this end, the requirements general ledger software must address at a transit agency are generally no different than those faced by any commercial enterprise -- to ensure that the organization's financial records are maintained in accordance with generally accepted accounting principles.

Requirements unique to transit properties primarily result from the need to comply with UMTA's Section 15 annual reporting requirement and with any requirements imposed by a state or other funding agency. The general ledger must be able to track accounting information in a manner which permits reporting at the prescribed levels of detail. The major impact is the need for the selected software to permit flexibility in defining the agency's chart of accounts if the agency desires to prepare its reports directly from its ledger data. Taking Section 15 into consideration when developing the general ledger can, however, reduce the effort involved in the preparation of the reports.

In addition to Section 15 reporting requirements, transit properties must be able to do grant accounting. Grant accounting is the ability to track the detailed expenses associated with a particular grant throughout the duration of the grant. Frequently, grants cover multiple fiscal years. Commercial enterprises, and therefore most software packages, zero the expense account balances when the year-end closing or rollover is performed. "Project" accounting packages do tend to include the required capability, however, the trade-off with regard to other capabilities generally makes such software inappropriate for a transit agency's general ledger.

The following discussion presents the requirements a transit agency must address when selecting general ledger software. The requirements are grouped into the following categories:

- account identification;
- accounting periods;
- report generation;
- other requirements; and
- desirable features.

Presented with each category are the software operating features which allow a transit property to address the requirement. As indicated, within each category the requirements and features are identified as being "required" or "desirable."

Account Identification

An account is the lowest level of detail at which an organization accumulates information for inclusion in its financial statements. The ability of the organization to define the set of accounts used to record financial information is essential if the account structure is to support Section 15 reporting. This requires that the user be allowed to define the account coding scheme and the associated account names which will appear on the financial reports. Generally, microcomputer general ledger packages allow users to define their own account numbers within a set range for each account type, i.e. asset accounts must range between 0000 and 1999, liabilities must range between 2000 and 2999. As long as the user can develop a Section 15 numbering sequence this limitation on the account coding scheme should not preclude use of such a package.

Software features required to support a user-defined chart of accounts include:

- Minimum eight-character account number to accommodate the Section 15 object and function codes. Many properties will find 9 or 10 characters more useful as you can define separate accounts by mode or jurisdiction.

- An adequate number of accounts to meet the user's requirements. The number of accounts required will vary considerably between properties. Generally it will depend on the number of modes being operated, the number of political jurisdictions from which the property receives funding, and whether the property provides any services that require special accounting. The number of accounts required by small to medium size properties should range from 200 to 800.

Desirable features the software should have to support a user-defined account coding include:

- Alphanumeric account codes to provide additional flexibility in tracking detailed financial information. For example, Operator's Salaries and Wages - Operations, which is charged to Section 15 account 501.01.010 could be tracked by its components, e.g. Travel Time (501.01.010.A), Platform Time (501.01.010.B), Intervening Time (501.01.010.D), etc. An alpha suffix could be used to indicate special programs, such as a 'V' for vanpool. This feature allows a common expense account to be known throughout the property and simple accumulation of the various program information to report total expenses.

- <u>Non-financial (statistical) accounts</u> to permit defining accounts which are not included on the financial statements. This type of account permits recording monthly operations information required for Section 15 reporting. The general ledger can be treated as the database in which all periodic information required for Section 15 reporting can be stored. With non-financial account and flexible report writer (discussed below) capabilities, an agency can develop most financial and operating reports from a central source. For example, the ability to accumulate labor hours by function code greatly simplifies the preparation of the 321 report and potentially only requires an interface between payroll and general ledger to record all of the necessary data.

- <u>Master and subsidiary accounts or division and/or department accounts</u> to allow reporting by cost center or to provide information at both summary and detailed levels. A master and subsidiary account capability allows the transit authority to define detail accounts which can be "rolled-up" to a summary account for reporting purposes. Division or department accounts enable the user to record charges by cost center using a single account coding scheme. Many of the packages do provide either or both of these capabilities. The requirement can also be addressed through the account code definition if sufficient user flexibility is provided.

- <u>Multiple ledgers</u> to permit recording the financial information for multiple entities. Many transit organizations reflect multiple entities operating as a common transit district or have a management organization and operating company which require maintaining separate financial records. For this case a software package which allows defining more than one entity is a better choice than one which requires a separate installation to record each entities financial information.

Accounting Periods

Recording of accounting information on a monthly basis is an obvious requirement and one which is provided by virtually any general ledger package. Some organizations maintain their financial records on a thirteen period basis rather than monthly. The user should be able to specify the appropriate number of accounting periods. Users should also be able to specify their fiscal year end and not be limited to December 31 or June 30.

The software should also maintain year-to-date balances for all accounts to support management reporting. Similar balances for the prior year considerably enhances the use of the general ledger as a management tool. Such information permits analysis of trends and supports preparation of budgets.

Posting to multiple open periods is a required software feature related to accounting periods. The accounting activity for a month usually does not close with the end of the calendar month. To prevent having to physically hold off entry of the next month's transactions until the closing of the current month is completed, the software should permit more than one month to be open at a time. Such a capability is also important at year end, as adjusting entries may not be immediately available.

A desirable feature is the provision for multiple year accounts which can be used to record grant expenses. Grant accounting requires knowledge of the charges associated with a grant on an accumulated basis from its inception. Generally, expense account balances are reset to zero during the annual closing or rollover process, making it difficult to track grant expenses across fiscal years. The number of grants the agency has that extend through multiple fiscal years will determine the importance of this feature and whether it should be considered during software selection. If the number of grants is considerable the agency might consider a separate "project" accounting system for tracking the required information external to the general ledger or if multiple ledgers are permitted, setting up a separate ledger for each grant which is not closed at the end of the fiscal year.

Report Generation

Production of standard financial statements is a required feature of any general ledger software. Standard financial statements include:

- trial balance;
- balance sheet;

- income statement; and

- transaction detail.

In addition to these standard reports, a required capability of the software is the provision for the user to define their own reports. Each of the standard reports and the user-defined reporting requirement are discussed below.

The trial balance is used to prove the quality of the debits and credits posted to the general ledger prior to printing of the balance sheet. It is usually a two-column listing of the account balances in the order in which they are defined in the chart of accounts. This means that it shows the year-to-date account balances at the time the trial balance is generated. Totals for the debits and credits are presented at the end of the report.

The balance sheet shows the financial position of an organization by summarizing the asset, liability, and owners' equity account balances as of a specific date. It shows the total balance for each category of account and, depending on the software selected, will show intermediate totals according to the report codes specified when setting up the chart of accounts.

The income statement shows the relationship between revenues and related expenses for a particular accounting period. Like the balance sheet, it shows the account balances for the revenue and expense accounts. Again, depending on the software selected, it will show intermediate totals for groups of accounts according to the report codes specified when setting up the chart of accounts.

The transaction detail or general ledger listing shows the activity affecting an account during the period. It generally shows the beginning balance for an account, the transactions posted to the account during the period, and the ending balance. The user should be able to specify obtaining this report for a single account, a range of accounts, or all accounts, as it is useful when researching errors identified by the trial balance. Frequently, a general ledger package will also include a journal listing capability for reporting on all of the transactions affecting a specific account. This capability can be considered a subset of the transaction-listing capability.

The capability for user-defined reports is essential for a transit property to be able to produce Section 15 reports directly from the information contained in the general ledger. The user must be able to define completely all of the information to be contained in the report. Packages often advertise a user report-writer capability that is nothing more than modification to account names or report titles. This type of capability is inadequate for a transit agency. The ability of the software to interface with "spreadsheet" software might, however, provide sufficient capability.

In addition to being able to produce standard reports showing current account balances, desirable variations of these reports include:

- o comparison of current-month and same-month-prior-year information;
- o comparison of current-month actual and budget information;
- o calculation of variances and/or percentages;
- o financial reports by department; and
- o listing of the account codes and names in sequence.

A desirable capability is the preview of reports on-line. Display on a screen is considerably faster than printing, allowing the user to review reports for correctness prior to obtaining final hardcopy. Such a capability should permit the user to "scroll" through the report for it to be manageable. The user should also be able to inquire directly for specific account balances either individually or by defining a range of accounts. On-line inquiry allows the user to answer many of the daily accounting questions and, if supported by a display of the current period transactions for the accounts, to easily research out-of-balance conditions.

To provide these various reporting capabilities the features which the software must contain include:

- o maintaining year-to-date account amounts;
- o maintaining prior-year monthly account balances; and
- o maintaining monthly budget amounts by account.

Other Requirements

In addition to the items cited above, several other requirements and features should be considered when selecting a general ledger package.

The software should incorporate appropriate balance controls for all transactions posted to the general ledger. It should balance all debit and credit entries so that the ledger cannot become out of balance. In an interactive system this feature should be a balance edit for each of the items making up a single transaction. For a batch entry system the batch should be balanced for debit and credit entries and, preferably, against batch control totals and transaction counts. One-sided entries should only be allowed for statistical accounts, and even for this type of entry, a dummy account should be used for balancing purposes.

The software should also field edit all data entry to the maximum extent possible. There should be an on-line edit of account numbers, transaction codes, and other account attributes. For example, when entering a transaction the account number should be checked against the chart of accounts for validity. This will prevent partial posting of entries or batches and help keep the ledger in balance.

The software should allow for an adequate number of transactions per period. Some packages limit the number of transactions which can be processed in a month. This usually reflects a limit on the number of transactions which can be stored for the monthly detailed transaction report. The number of transactions a property needs to process a month will vary according to size, the types of information maintained in the general ledger, and the automated interfaces with other applications. The last factor is important in that an interface usually passes many detailed transactions instead of the summary level transactions which would be used if the information was entered manually. Any package which limits the number of transactions to less than 500 - 800 per period should not be considered.

It should also permit adequate field sizes for the property, both on reports and in files. A multi-million dollar transit agency does not want a general ledger that limits account balances to hundreds of thousands of dollars. Inadequate field sizes and transaction volumes are not problems with most packages but should not be overlooked when considering the software.

A desirable general ledger feature is its' integration with accounts payable and accounts receivable packages. With this feature entries to the accounts payable or accounts receivable are automatically posted to the general ledger. (This is different from an interfaced package which would cause creation of a transaction file for later posting to the general ledger.) Integration minimizes or eliminates the need to perform duplicate data entry. Multiple applications from the same vendor tend to work better together than trying to interface applications from different vendors. Integrated software also has the advantage that the different applications usually work similarly in the use of menus, function keys, and data entry. Depending on how these functions are spread throughout the organization, the use of common techniques should simplify training of multiple users so that there is a backup capability for any function.

Other applications with which the general ledger could be interfaced include payroll, spreadsheets, and fixed assets. A payroll interface would provide the labor and fringe benefit expenses and, if statistical accounts are used, hours by category for the 321 report. Spreadsheets provide a more powerful analytical capability than is usually contained within a general ledger report writer. A spreadsheet infterface however, should only be to export data from the general ledger to the spreadsheet. All inputs to the general ledger should be made by posting of general ledger transactions. A fixed asset interface meanwhile provides a means to obtain depreciation entries automatically on a periodic basis.

Desirable features also include the ability to define auto-recurring and auto-reversing transactions. Recurring entries allow the user to define a transaction which is automatically applied each month for the number of months specified. Auto-reversing entries are transactions which are automatically reversed during the next period. For example, if the payroll accrual entered at the end of the month is defined as a reversing entry it will be automatically reversed at the beginning of the next period. Both types of entries are posted automatically when the current period is closed. They help to minimize data entry and serve as reminders for the next entry. Neither is critical to the package selection process, however.

ACCOUNTS PAYABLE

An accounts payable system is used to manage cash flow by scheduling vendor payments and ensuring that appropriate discounts are taken. One neither wants to pay invoices too early, thereby providing the equivalent of an interest-free loan to the vendor, or to pay late, losing discounts and/or the goodwill of the vendor. One also wants to ensure that payments are made only for goods and services that were ordered and received.

For a transit property, payables generally represent purchases of materials and supplies; fuel, oil, and other consumables; and contract and other services. While a transit property may be purchasing different items than a commercial enterprise, the requirements for tracking payments are basically the same.

The following discussion presents the requirements of a transit property for accounts payable software. Presented with the requirements are the software features that allow it to perform the necessary functions. As with the general ledger software discussion, the features are presented as "required" or "desirable."

Scheduling of Vendor Payments

The accounts payable software should assist the scheduling of vendor payments according to vendor payment terms. It should be capable of scheduling payments based on either discount date or due date, according to the policies of the transit property.

Software features necessary to support this requirement include:

- invoice discount date tracking;
- invoice due date tracking;
- vendor file maintenance of vendor payment terms, addresses, and contacts so that vendor information does not have to be re-entered for each invoice; and
- vendor payment deferral or holding so that payments are not automatically scheduled.

Selection Of Invoices For Payment

The accounts payable system should automatically select invoices for payment based on discount date and/or due date according to the terms which are most favorable to the transit property for all or selected vendors. This process should create a proof list or file which is then modified prior to printing of checks. As part of this selection process the user should be able to override automatic selection by placing an invoice on hold or deleting it from the selection list or add invoices to the payment list manually.

The features the software should have to support these requirements include:

- payment selection based on discount date;
- payment selection based on due date;
- payment selection of a specific vendor's invoices;
- manual selection of invoices for payment in advance to the due/discount date;

- manual override of selected invoices to remove them from the payment list; and

- manual override of payment amounts to make partial payments.

Calculation of Payment Amounts

The accounts payable software should also automatically calculate the payment amount based on the vendor payment terms or discount percentages or amounts pertaining to a specific invoice. It should be possible to override the calculated amount to make a partial rather than a full payment. In this instance the unpaid balance should remain outstanding for future payment selection.

Transaction Types

The accounts payable requirements cited imply that the software be capable of processing a variety of payment types. These include:

- payments for the full scheduled amount;

- partial payments of less than the scheduled amounts;

- debit/credit memo adjustments to invoice amounts;

- prepayments of amounts in advance of recognition of the expense such as annual insurance premiums; and

- voids to reverse payments after the check has been printed.

Distribution Of Invoice Amounts to the General Ledger

Frequently, it is necessary to distribute individual invoice line items to different general ledger accounts. For example, it may be necessary to expense each item on an invoice to a different cost center, to expense freight charges separately, or to allocate individual line items to multiple accounts.

The number of distribution accounts required varies. The worst case is when each invoice line needs to be distributed to multiple accounts. The need for so many accounts will be rare as most transit property purchases are charged to inventory or to a material and supplies general expense account. A practical minimum for the number of distribution accounts ranges from 8 to 12, depending on the level of detail at which the agency assigns expenses, with at least one account per voucher line.

Be aware of how the package defines the number of distribution accounts. A package saying it can handle 12 accounts may allow codes for 12 accounts and then only allow these 12 to be charged. The selected software should allow you to enter 8 to 12 accounts for each invoice. Some packages also require the user to specify distribution codes as part of the vendor file, a feature that is not useful to transit agencies as it is limiting the distribution to a single account for an invoice.

Printing Of Vendor Checks

The accounts payable system should print vendor payment checks and remittance advices detailing the payment. Checks will usually be prepared on pre-printed forms and the user is generally not able to vary the format. The remittance advice should show at a minimum the invoice number, the payment amount, and the discount taken. A reference item, such as the purchase order number, is also a useful field when responding to vendor inquiries.

Software features required to support vendor check printing include:

- automatic printing of invoices selected for payment;
- consolidation of multiple vendor invoices into a single check;
- posting of payments made by handwritten checks; and
- reprinting of checks damaged in the printer.

Report Generation

Reports produced by an accounts payable package should include:

- open invoices by vendor;
- open invoices by due date;
- cash requirements;
- check register and cash disbursement journal;
- vendor listing; and
- transaction detail.

Generation of each of the accounts payable reports should be supported by the ability to preview them on-line prior to printing. In addition to these required reporting capabilities, a desirable feature is the ability to print 1099 forms.

The open invoice reports, by vendor or by due date, show any unpaid items entered in the system. These are essentially two different cuts at the same information -- the vendor list showing unpaid items in vendor order and the due date report showing items in date order. Due date for the open item report is usually the date by which payment must be made to obtain the vendor discount. Many packages title these as aged open payables reports and will show items by vendor in due date order.

The cash requirements report shows the cash amount required to cover the invoices selected for payment. It can serve as a proof report for the selected payments and can help the user decide if any changes, such as holds or partial payments, should be made before the checks are printed. The cash requirements report will often include a comments area and will indicate if an amount is on hold, is a debit memo, or exceeds predefined check maximums.

The check register and cash disbursement report shows the check number and date for each payment and usually the general ledger account distribution. Generally, the report is in check number order and only shows the consolidated payment to a vendor. The cash requirements report or the transaction detail must be used to review the specific items paid with any check.

The vendor list is an alphabetical listing of the vendors maintained on file. It shows the vendor reference number, address, telephone number, and payment terms. A desirable feature is the ability of the software to print vendor mailing labels.

The transaction detail is a record of all entries made to the accounts payable system during the period. It shows invoices, credit memos, payments, and debit memos. It is usually printed in vendor order and serves as an audit trail of all accounts payable activity.

Maintenance Of Vendor Information

The software should support a vendor file which contains vendor data such as name, address, contact, telephone number, invoicing terms, and miscellaneous codes (i.e. 1099, DBE) for reporting purposes. Access to this information should be by vendor code or abbreviation, which is the information entered for each invoice. Using a vendor file is much simpler and less error-prone than entering vendor information with each invoice.

Required features that the software should have to support a vendor data base include:

- o <u>An adequate vendor code field</u>. The vendor code field should permit a meaningful abbreviation, not just the assignment of a vendor number. A transit agency deals with so many different vendors that a simple scheme such as the first four characters from a vendor's first and second names becomes much easier to use than trying to remember or having to constantly look-up vendor numbers. This means a minimum <u>alphanumeric</u> field of 6 to 10 characters should be available.

- o <u>An adequate number of vendors</u>. For small-to medium-size properties the software should permit a minimum of 300 to 1000 vendors. It should also permit "one-time" vendors for payments to vendors who are not used frequently. The necessary vendor information is entered at the time of invoice entry, permitting the user to avoid an unnecessarily large vendor file containing a lot of infrequently used information.

- o <u>On-line query of vendor information</u>.

A desirable feature is the ability to add a vendor to the data base during invoice entry. If when entering an invoice the user encounters a vendor not on the file, it is desirable to be able to enter the vendor information without having to escape from invoice entry and lose the information already entered. Another desirable feature is a vendor analysis report which shows the history of your activity with each vendor. It will usually contain comparison of year-to-date and last-year purchases in dollar amounts and number of invoices, discounts taken, and discounts lost. A vendor master file must contain fields for this information if such a report is to be generated.

<u>Other Requirements/Desirable Features</u>

Another function the software should support is the matching of invoices, purchase orders, and receiving reports prior to payment approval. The features necessary to support this function include:

- o <u>An adequate vendor invoice field</u>. Vendor invoice numbering schemes vary considerably. There will always be some vendors whose invoice numbering scheme cannot be accommodated within a reasonable field size. Generally, 12 to 16 characters provide enough information to define and keep identifiable most vendor invoice number schemes.

- An adequate purchase order number field. The transit property has control of the purchase order numbering scheme. Usually 6 to 8 characters is adequate. Many packages do not have a field for this information; however, it is useful researching vendor payment queries.

- An adequate receiving report number field. The same comments apply here as for the purchase order number.

As for the general ledger, accounts payable software should permit an adequate number of transactions to be processed each period. Some software limit the number of transactions which can be stored for the monthly detailed transaction report. The number of transactions processed in a month varies considerably with property size and procedures such as the number of line items permitted on a purchase order. Packages should not limit the number of transactions to less than 500 to 1000 per month.

The package should edit as many fields as possible during data entry. It should check for valid vendor numbers and valid general ledger account distribution codes, and balance the distribution amounts to the invoice total.

Desirable features include support for check reconciliation with monthly bank statements, recurring invoices, and integration with other applications. Check reconciliation should allow the user to take advantage of the files generated during the check print process to simplify reconciliation with bank statements. The ability to handle recurring invoices eliminates unnecessary data entry for invoices which are paid on a regular basis and for the same amount. Debt payments or lease payments are two such items. With a recurring invoice capability the user enters the number of payments for the first payment and the invoice is then automatically scheduled for the proper date each month without further data entry.

Integration with other applications could include general ledger and purchasing. General ledger integration would provide for the automatic entry of information to the general ledger whenever an applicable accounts payble transaction occurs. The accounts payable control account and expense distribution accounts are updated whenever an invoice is entered and the appropriate transactions are posted whenever a payment is made or credit or debit memo applied. Integration eliminates the duplicate entry of accounts payable information and general ledger transactions. Integration with purchasing would similarly eliminate redundant data entry related to purchase order information.

ACCOUNTS RECEIVABLE

An accounts receivable system controls customer accounts and ensures that timely payments for services are made to the transit property. While the types of receivables vary considerably between properties, common categories include charter services, ticket sales, advertising, various employee expenses, and subsidy and grant payments from governmental organizations. Other receivables are elderly and handicapped transportation services, vanpool lease programs, and other contract services. Transit properties providing vehicle maintenance services for other governmental entities require a receivable for this service.

The accounts receivable system must be able to post invoices, credit memos, adjustments, and cash receipts against individual customers. Receivables are usually tracked on either an open item or balance forward basis. Open item systems apply receipts against specific invoices while balance forward systems apply receipts against the total outstanding balance of the customer. An open item system requires that a customer number and invoice number be entered with a receipt and can produce detailed aged accounts receivable reports. A balance forward system only requires the customer number with the receipt and produces aging reports that have invoice amounts accumulated by month. The payment in a balance forward system is generally applied against the oldest outstanding monthly balance. Some packages allow the user to select open item or balance forward on a customer-by-customer basis, while others are specifically open item or balance forward for all customers.

From a reporting perspective, an accounts receivable system is expected to produce customer statements and aging reports. Within some systems a customer statement is an invoice, while in others it is a report on the status of a customer's account. The system is usually expected to produce customer mailing labels and aged receivable reports.

The following presents the requirements a transit property must address when selecting accounts receivable software. Presented with each requirement are the software features which allow it to perform the necessary functions. As with the general ledger and accounts payable discussions, the features are presented as being "required" or "desirable."

Maintenance Of Customer Information

The software should support a customer file that contains customer information such as name, address, contact, telephone number, and billing address. Access to this information should be by customer code or abbreviation, which is entered for each invoice. Using this method is simpler, less error prone, and less time consuming than entering complete customer information for each invoice.

Features the software must have to support a customer file include:

- An adequate customer code field. The customer code field should permit a meaningful abbreviation of the customer name, not just the assignment of a customer number. As with the accounts payable vendor code, a meaningful abbreviation technique, such as the first three or four characters of the first and last name, is much easier to use than a customer number that must be frequently looked for on an alphabetic customer listing. A minimum alphanumeric field of 6 to 10 characters should be available. The agency does have some control here as it assigns the customer codes.

- An adequate number of customers. The number of customers will vary with the types of services offered by the property more than it will vary according to size of the property. A property with a small number of fixed routes may be operating an area-wide vanpool lease program and be required to bill a large number of individuals for van leases. In general, the number of customers allowed by the package should not restrict the property in any way. A minimum of 200 to 500 customers is usually adequate.

- On-line query of customer information. The software should permit checking customer status and credit limits in a manner which supports managements' decision-making regarding provision of services and permits timely response to customer queries.

Customer history is a desirable feature. The software should permit analysis of customer credit and payments beyond the review of currently outstanding invoices. Information such as a customer's habit of making payments late or frequently "bouncing" a check are important to the management of receivables.

Transaction Types

Accounts receivable software must be able to process a variety of different types of payment transactions. These include:

- payments (cash receipts) for the full invoice amount;
- partial payments, i.e., payments for less than the full outstanding balance in a balance forward system and less than a complete invoice amount in an open item system;
- overpayments, i.e., payments for more than the full outstanding balance in a balance forward system or more than an invoice amount in an open item system;
- credit memos, i.e. returns of tickets for credit;
- adjustments or corrections to invoices or payments; and
- miscellaneous cash, i.e., cash that cannot be credited to a specific customer.

These items, except miscellaneous cash, must be posted either to a specific customer or to a specific invoice according to whether the software is balance forward or open item.

Distribution Of Customer Invoice Amounts to the General Ledger

It is frequently necessary to assign each line item of an invoice to a different general ledger account or to allocate an invoice line item among multiple accounts. If the software prints invoices the permitted distribution should, at a minimum, be by line item. If the system only tracks the receivable and prints status statements, it should permit allocation to a minimum of 5 to 15 accounts. Be wary of how this is described by the software literature. What appears to be the capability to distribute to 10 accounts on an invoice basis might in fact be a limit of 10 different distribution accounts for the entire system.

Report Generation

The reports produced by an accounts receivable package should include:

- aged accounts receivable;

- customer invoices and account statements;
- cash receipts journal;
- transaction listing;
- customer mail labels; and
- customer lists.

The aged accounts receivable report shows the amounts due from customers according to the length of time the amount is outstanding. With a balance forward system the outstanding amounts will be aged at the close of each accounting period. With an open item system the aging is determined for each outstanding invoice when the report is generated. Aging periods will vary by package, less than 30 days, 30 to 60 days, 60 to 90 days, 90 to 180 days, 180 to 360 days, and over a year are typical ranges. Some open item packages will allow the user to define the aging periods when the report is created. The aged account report is usually produced in summary and detailed formats, particularly for open item accounts. The summary format shows the total amount due by period while the detailed version shows the specific invoices outstanding from each period.

The customer invoices and/or account statements inform the customer of the amounts due. The invoice usually shows the total amount due while a statement format details the transactions affecting the customer's account during the period. The user should be able to select how invoices and statements are printed for all customers, for customers having activity during the period, or for customers having outstanding balances. Invoices and statements will usually require pre-printed forms and the user cannot generally modify the format. A desirable feature of customer invoicing is reprinting of invoices or statements which are damaged during printing or lost in the mail. The software should also allow the printing of delinquency notices separately from customer invoices.

The cash receipts journal shows all transactions affecting the cash account which are processed through the accounts receivable system. Essentially it is a record of all monies taken in by the agency and the general ledger accounts to which amounts are to be posted.

The transaction listing is a record of all entries made to the accounts receivable system during the period. It shows customer invoices, cash payments, adjustments, and any other transactions processed. It is usually printed in vendor order and serves as an audit trail for all accounts receivable activity.

The customer mailing label is a formatted print on a sticky label for use in customer mailings. The software should automatically print mailing labels for all customers invoiced (unless the invoice format is for a window envelope or on a multipart envelope and statement form) or allow the user to select which mailing labels are to be printed.

The customer list is an alphabetical listing of the customers maintained on file. It shows the customer code, address, telephone number, and contact.

Generation of each of the accounts receivable reports should be supported by the ability to preview them on-line prior to printing.

Other Requirements/Desirable Features

As for the general ledger and accounts payable applications, accounts receivable software should permit an adequate number of transactions to be processed each period. Some packages limit the number of transactions which can be stored for a monthly detailed transaction listing. The number of transactions a month will vary considerably between properties, similar to the variation in number of customers. Any software which limits the number of transactions to less than 500 to 1000, according to the particular situation, should be considered warily.

Desirable accounts receivable features include credit limit checking, calculation and application of early payment discounts, calculation of late payment charges, recurring invoices, data entry editing, and integration with the general ledger package.

Credit limit checking requires a credit limit field on the customer master file as well as the ability to conveniently compare this amount with the customer's outstanding balance. Such a capability has only limited applicability at a transit agency, and is probably only useful for charter and advertising receivables or for the provision of special transit services where the credit limits are likely to be fairly low. This capability will probably not be found in most accounts receivable packages; it is usually part of the order entry capability.

Calculation of early payment discounts includes the calculation of the discount amounts for appropriate line items, automated charge off to the appropriate general ledger account, and existence of a contra-revenue account for discount expense. Such a capability is not required by most transit properties although the calculation of early payment discounts could probably be used to record commissions on ticket sales.

Calculation of late payment charges is a desirable feature for transit properties that charge penalties for late payments. Automatically computing late charges at the close of each accounting period saves considerable manual computation effort.

Another desirable feature is the ability to generate recurring invoices automatically from a one-time entry of the invoice information. With this feature, the first time an invoice is entered, the number of times the invoice is required or the last invoice date is also entered to determine how many invoices for this amount are to be generated. This feature is particularly useful for properties who bill pensioners monthly for various benefits, the amount of the invoice usually remaining constant for a twelve month period.

An accounts receivable package should edit as many fields as possible during data entry. It should check for valid vendor numbers and valid general ledger account distribution codes, and balance the distribution amounts to the invoice total.

Integration of the accounts receivable with the general ledger package provides for the automatic entry of information to the general ledger whenever an applicable accounts receivable transaction occurs. As for accounts payable, this feature eliminates the need to duplicate data entry in two systems and considerably reduces the chances of the control account and the detail accounts not balancing.

3. PRODUCT SELECTION

Now that we've looked at the accounting requirements faced by a transit property, this section will concentrate on how to select package software which provides the necessary capabilities. As many of a transit agency's requirements are similar to those of commercial enterprises, it should be possible to find a package with which the agency can comfortably operate. It should not be necessary for a property to have custom software developed unless it has other unique requirements.

This section discusses criteria for selecting software, identifies sources of information, presents some hints on things to do to minimize problems when making the selection, and discusses the steps following software package purchase. To help you out, we have started the selection process for you by evaluating a number of the microcomputer-based products on the market. This evaluation takes the form of completed checklists which compare the capabilities of the packages to the accounting requirements already presented. The checklists are supported by notes on the capabilities of each package.

The evaluation of accounting packages presented in this section uses information obtained from publicly available vendor materials or from the documents cited at the end of this section. The packages reviewed represent a small sample of those on the market, and the information on these packages dates from late 1983 thru summer 1985. Most of the more widely known packages are included, as are most hardware and operating systems.

Microcomputer software is a very volatile marketplace with regard to both the availability of new software and/or enhancement of existing software. This software evaluation is accurate according to the information available at the time it was collected. It may not, however, reflect the current version of the software offered by a vendor. Also, as much of the material available to us was marketing in nature, we have in some instances made inferences regarding the exact capabilities of the software in question. In all cases we have attempted to make such inferences consistently in order that no particular advantage be given any specific package.

SOFTWARE SELECTION CRITERIA

There are a number of application-specific and general considerations which should enter into any computer software purchase decision. The various criteria should include:

- ability to solve the problem;
- ease of use;
- expandability;
- adequacy of security and control;
- adequacy of documentation;
- reputation of the vendor; and
- availability of training and support.

Each of the above criteria should be considered during the software evaluation. The degree of importance each will have in the evaluation will vary by agency, and each agency is encouraged to develop its own weighting scheme. Certainly, the ability of the software to address the requirements is of primary importance. Not shown above, but of significance, is the hardware requirement of the software. This issue will be addressed separately. Beyond these, each of the remaining criteria are of roughly equal importance, with ease of use and documentation ranked next in line. All are very subjective in nature, yes or no and good, fair, or poor being the evaluation standards. Each of these is discussed below.

Ability to Solve the Problem

The packages' ability to perform the necessary functions is the primary concern. The software should handle all of the essential requirements for an application. Software features identified as desirable are not as critical. Obviously, software that includes these capabilities is preferred.

The best technique for comparing the software to requirements is to complete a checklist. A completed checklist tells whether further consideration should be given to the package. Sample checklists for general ledger, accounts payable, and accounts receivables applications are included in Appendix A for your use in evaluating packages not included in this report. The checklists include the requirements discussed in Chapter 2. Completed checklists for a number of products are included later in this section.

The important question now is what to do if the software does not meet all of the requirements. One solution is to identify additional packages for review. The other is to determine whether you can compromise your requirements in the areas in which the package is weak. Compromising depends on the importance of the requirement. For a general ledger at a transit agency the abilities to create a Section 15 chart of accounts and to generate your own reports represent the most important requirements. Unfortunately, they are the ones where the package software is most likely to be weak. As a rule of thumb, a minimum of 80 to 90 percent of the application requirements should be addressed by the software you select.

Ease of Use

At a small transit agency, the management and staff are the ones who have to be able to use the software. No funds are available to create a "data processing" department to deal with each user's concerns. In current jargon, the software should be "user friendly." Generally, being user friendly means that menus guide the user to the appropriate function, that formatted input forms prompt for each required data entry, that entry errors are intercepted, and that meaningful messages help the user correct the entry and continue the processing without destroying any information already in the files. On-line help should be available and appropriate techniques should be used to prevent massive data losses from power failure or accidental striking of the on/off switch, an occurrence which is not infrequent with microcomputers.

Expandability

Select software which lets you change and grow. While you should take change into account when determining your requirements, it is not easy to anticipate everything that will affect the organization in the future. While 150 accounts may seem sufficient now, what happens if you start a new special service program or have a new reporting requirement approved? If you purchase a different type of bus will you have room for the new vendors? Can you handle the number of purchase transactions to stock the supply room? Do not put yourself in the position of having to install new software to handle the same but bigger problem just when the staff is becoming comfortable with the current software.

When looking at the ability of a package to handle change, you need to look at it from two perspectives:

- o whether the software can handle increased numbers of accounts, transactions, customers, vendors, etc.

- o whether new items can be added to the files easily.

Some software require the user to define file sizes at installation time. Usually, file size is specifyied by choosing the parameters appropriate for the application, i.e., number of accounts and monthly transactions for the general ledger. How easy is it to modify this file allocation, particularly once the file full of data? Can the file allocations be changed without losing everything that is stored there now?

Security and Control

The software should incorporate techniques for satisfying internal control requirements and for protecting against accidental destruction of data. Access to applications should be provided through the use of passwords, which should be changed periodically. Such limitations on access should be consistent with the separation of duties maintained by the agency and should apply to data as well as application programs.

Any time a number of people use the same computer there is a chance for accidental (or intentional) loss or destruction of files. While access to data through the application software can usually be limited, the simplicity of microcomputers makes it difficult to prevent unauthorized access to files using system utilities. The best way to protect against the loss of data is to institute a process of periodic file backup. Some packages simplify this process by including backup as a menu capability and prompting for the insertion of diskettes or the assignment of disk drives. Such software usually has the advantage of also providing a restore capability which reinstitutes all of the necessary files with a minimum of fuss.

Choose a package which simplifies the back-up process. If one is not included with the selected software, make sure there is an easy way to back up the files using the operating system utilities. In both cases, make sure the backups are clearly labeled and that they are not kept someplace where they could be mistaken for scratch diskettes. Specifically assign the responsibility for making backups as part of the job duties, do not rely on each user to make their own backups whenever they feel they need them. You will end up with a significant loss of data at a critical time if specific responsibilities are not assigned.

Documentation

Consider the package documentation your first line of defense. With microcomputer packages the user is usually the one responsible for installing the software and putting it to use.

Unless you purchase a package with which your local computer store is familiar you are not likely to get much help beyond that provided by the documentation.

Review the documentation before you buy the package. Make sure it is well written, well organized, and complete. There should be illustrations for all the screens and step by step instructions for each function. It should be written in easily understood English and be understandable to someone who is not a data processing expert. It should have a table of contents, an index, and an appendix containing descriptions and trouble-shooting advice for all error messages.

If you plan on buying the software through a retail outlet, insist that they let you borrow the documentation before you buy the software. If it is not a stock item, get the name of other local package users and borrow the material from them. In any case, talk to other users to learn their opinion of the software. Manufacturers may be reluctant to lend the documentation, but might sell it to you. It is worthwhile to buy the documentation for review before you buy the software as it may save you from replacing a whole software package.

Vendor Reputation

Check out the vendors' reputation for producing quality software. Your accounting systems will play an important day-to-day role in the operation of your agency. You can not afford to purchase software which is unreliable and functions incorrectly.

Talk to other users. Find out what kinds of problems they have had, and what kind of support the software vendor provided to resolve them. Listen carefully and probe a little in this area. Make sure that they are describing software problems, not user problems.

Determine how many copies of the package have been sold. If your first choice in software has not sold many copies and has been around awhile, be wary.

Training and Support

You are not likely to find much in the way of training for most microcomputer accounting software. If the retail outlet you are buying from is pushing a package it might offer a basic training program. The knowledge of retail outlet trainers may be limited as they probably have not put the software through its paces. There might be an independent consultant who offers training classes, but this will only be true for the most widely used packages.

Some software do come with separate tutorial diskettes. For a general ledger package the tutorial probably will contain a rudimentary chart of accounts and will walk you through each of the steps in an accounting cycle -- from posting transactions to closing the month and year. The tutorial usually comes with a manual which explains each step and shows what the user should see on the screen as one steps through the lessons. This approach is good, particularly for agencies that are introducing the computer for the first time. Usually the tutorial is fairly robust and can help convince the staff that they need not be afraid of the machine, that it will catch their mistakes, and that they will not lose all their data from the slightest error.

Support should be provided through a "hotline" service and through a maintenance agreement. During the warranty period you should be able to call the hotline with any questions free of charge. After the warranty is expired there might be a charge based on the length of the call and any research time if you have to be called back with an answer. The hotline should be a toll-free telephone number.

A maintenance contract should provide upgrades to the package or any corrections to the software. Usually the cost of such a service is 10 percent of the package purchase price, per year. Find out how upgrades are provided and how frequently they have been made. Be wary if the vendor offers a maintenance agreement but has not released any upgrades.

HARDWARE CONSIDERATIONS

During your software selection process you will fall into one of two categories related to hardware -- either you already have hardware that you are using for other applications or you are looking to buy hardware too.

If you own hardware, limit your package review to those that are compatible with your existing configuration. There are many advantages to using compatible hardware throughout the organization, including the ability to swap data and to have backup processing capability. Review the package hardware requirements carefully to make sure you have enough internal memory and disk storage, the right version of the operating system, and that it will work with your printers and monitors.

If you do not already have a hard disk, consider upgrading your system, as without one you will spend much time shuffling diskettes.

If you do not have any hardware you are obviously unrestricted as to which packages you should evaluate. Find the package which best addresses your functional requirements and gets high marks on the other selection criteria we have presented. But do not totally ignore hardware and the other applications you are considering for automation. Do not select a package which operates on hardware you are not able to get support for in your area. While microcomputer reliability is generally very high, if it malfunctions and there is no one to fix it or provide a loaner, you are not going to get your accounting work completed. Determine for which hardware there are packages for the other applications you are considering. While you can use different brands of hardware for each application, there are many advantages to using compatible hardware throughout the organization, including the ability to swap data and to have backup processing capability.

SOURCES OF INFORMATION

There is a lot of information to be considered when selecting software. Fortunately, this problem is not unique to the transit industry so there are resources to help with the process. For starters, the next section includes several completed checklists for each of the accounting applications. The checklists identify a number of the packages in the marketplace and compare the package features to the specific requirements of transit agencies. However, they only provide a brief overview of each package, so supplement the information contained here before making a final selection. Determine if there are other packages on the market for your specific situation or if there are enhancements or new hardware configurations for the packages shown.

Your retail computer store probably has a directory of microcomputer software, several different accounting packages in stock, and literature for packages not in stock. Most of the literature will be product specification sheets or brochures that describe the basics of the package, show some of the reports and screens, indicate the hardware configurations on which the package operates, and indicate how to compute the amount of storage needed for the software and files.

There are a number of directories available which can help identify packages for a specific application or for integrated applications. These include:

- <u>DATAPRO Directory of Microcomputer Software</u>
DATAPRO Research Corporation
1805 Underwood Boulevard
Delran, New Jersey 08075
(609) 764-0100

- Data Decisions
  Data Decisions Software
  20 Brace Road
  Suite 312
  Cherry Hill, New Jersey 08034
  (609) 354-5100

- Data Sources
  Data Sources
  20 Brace Road
  Suite 110
  Cherry Hill, New Jersey 08034
  (609) 429-2100

These firms collect vendor materials and conduct user surveys for many of the packages described. They are subscription services and publish updates and newsletters periodically. Subscribers can have special searches conducted. DATAPRO and Data Sources have volumes specifically for microcomputer software while Data Decisions combines the software for all types of hardware.

Software Catalog is another service which is offered on-line through Lockheed's DIALOG network service. Hardcopy of the Software Catalog can be obtained through Elsevier Science Publishing Co., 52 Vanderbilt Avenue, New York, New York 10016, (212) 370-5520.

The directories and search services help identify packages which can address your requirements. The information they provide about a package, however, is usually limited.

A number of books and reviews of software packages have also begun to appear on the market and many bookstores have greatly expanded their collection of microcomputer-related titles. Hixson's A Buyer's Guide to Microcomputer Business Software, Addison-Wesley, reviews a number of accounting packages while An IBM Guide to Choosing Business Software, Banbury Books, describes the capabilities and features a user should look for in a variety of different accounting applications. Business Computer Systems in its July and August, 1984, issues presents product information for a number of accounting packages. Computer Training Services, Inc. of Washington D.C. has prepared a comparative analysis of microcomputer packages which is provided as part of a one-day seminar, Introduction to Microcomputer Accounting Systems.

HINTS FOR GETTING STARTED

While it is time consuming, getting your requirements down on paper and collecting information about the software is a relatively straightforward process. Use the checklists included in the Appendix to help you do both. For your requirements, look at the reports you need to produce, the information you need to create the reports, and how you need to classify the information. Figure out the volume of transactions or inputs and the volume of data that needs to be stored. For example, how many accounts, vendors, and customers do you have? How do you code your vendors and customers (number or name)? Think about what other uses you could make of the data if you had a better way of manipulating it than manually. List the reports you have been trying to get the accounting department to produce but have been telling you they can not prepare unless another person is added to the staff.

Complete the checklists for the package software. Start with the ones in the next section and add from there. Start with the items which are objective, where value judgments are not necessary -- there either is or is not a limit on the number of accounts; the vendor field is a specific size; the package does or does not handle recurring entries. Go to the subjective measures next. Get the names of other users and talk to them. Go see the package in operation in an operating environment. Do not just operate the package with test data at the computer store.

Even after doing all the research and selecting what appears to be the best candidate you may still suspect that the wrong choice is being made. Frankly, the best way to determine if you are going to be happy with your selection is to try it out, preferably without having to pay the entire package price. Some software vendors have recognized the need for a trial period, and provide it in one of two ways: with a demonstration diskette, or with a down payment for a trial period with full billing at the end of the period if the software has not been returned.

The demonstration diskettes are usually set up to allow a sample problem and are provided at nominal charge, $10 to $15. For example, the demonstration copy might only permit you to define 20 or 25 accounts but should allow you to operate all of the functions of the software. You might have to buy the users' manual with the diskette, though this will probably be refunded with the return of the material. If all you can get from a vendor during your package evaluation are specification sheets and marketing literature, a demonstration diskette can help you answer many of questions about the software.

A trial period with the software, particularly for your final selection, is also a good idea. As you will go through a full scale installation of the software to get it running, make sure the trial period is of sufficient duration for you to give the software a meaningful workout. Ninety days is a reasonable period. However, make sure you have your hardware in place before you order the software on this basis. Do not lose most of the period because you do not have hardware.

EVALUATION CHECKLISTS

A process similar to that described above was followed to obtain information about packages potentially applicable in the transit industry. The transit agency accounting requirements described in Chapter 2 were listed and the various directories, including one we borrowed from our local computer store, were used to identify packages which might meet our requirements. At this stage we were fairly broad-minded in our evaluation, and not limited by hardware, and came up with about 80 packages to investigate. Either the vendor was then contacted directly or we collected product specifications from our local computer stores for as many of the packages as we could. Based on the materials we collected, we ended up with about 30 packages to evaluate. Exhibit 3-1 identifies these packages, and shows the operating system and hardware requirements for each at the time the information was collected.

The package literature was reviewed to determine how the packages addressed the requirements and features on the checklist. While working on the checklists we watched a variety of the computer magazines for reviews of the packages. Whenever one was found, we used the information to supplement what was collected from the vendor materials. We also obtained users manuals for a number of the packages. Whenever we learned of a colleague who had purchased one of the packages, we borrowed the manuals.

To summarize the analysis, many of the packages offer the same types of features:

- o menus to control user selection of accounting functions;
- o inquiry and analysis capability;
- o hard disk and multiple operating system availability;
- o availability of most required processing and reporting features; and
- o special features that ease use.

EXHIBIT 3.1
MICROCOMPUTER ACCOUNTING
HARDWARE and OPERATING SYSTEM REQUIREMENTS

PACKAGE	OPERATING SYSTEM	HARDWARE
Alpha Micro (Starr)	AMOS/L	Alpha Micro
Altos	Xenix	Altos 586-10,8600-12 8600-14
BPI	PC DOS compatible	PC compatible CBM, NEC, Sanyo
Business Library	PC DOS compatible	PC compatible Televideo Eagle Spirit
The Champion	CP/M lookalikes	Z80, 8080, 8086 processors
Cyma	CP/M, MP/M, CP/M-86 MS DOS, TurboDOS Xenix	Any that support operating system
Glows	Information not provided by vendor	Information not provided by vendor
GOCI	Applesoft/SOS	Apple II,IIe,III Franklin Ace
Great Plains	DOS compatible	PC compatible Apple III, TRS 2000 NCR Decisionmate
Groundstar	Information not provided by vendor	Information not provided by vendor
Holland Automation	MS DOS CP/M	PC compatible Apple II,III
Insoft	CP/M PC DOS	Apple II,II+ IBM PC
Jonas and Erickson	MAI Basic Four	MAI Basic Four
Libra	PC DOS	IBM PC, XT
Micro Business Applications	CP/M, CP/M-86, MPX MP/M-II, MP/M-86 Concurrent CP/M-86 MSDOS,PCDOS,TurboDOS	Compatible with operating system
Microcomputer Consultants	CP/M, MP/M CP/M-86, MP/M-86	Compatible with operating system
O'Hanlon Sensible	CP/M 80, MP/M, MSDOS	Compatible with

EXHIBIT 3.1
MICROCOMPUTER ACCOUNTING
HARDWARE and OPERATING SYSTEM REQUIREMENTS

PACKAGE	OPERATING SYSTEM	HARDWARE
Solution	DPC/OS, TurboDOS MmmOST	operating system
Open Systems	CP/M, CP/M-86, MP/M MP/M-86, MSDOS, UNIX PCDOS, OASIS, XENIX	Compatible with operating system
Peachware 8	CP/M, MSDOS	Z80,8080,8085,8088 processors
Software Express	UNIX, PICK	Compatible with operating system
Soloman Series III	MSDOS	Compatible with operating system
State of the Art	Appropriate DOS version	Apple II,III PC compatible
Structured Systems Group	CP/M, MP/M	Compatible with oprating system
Systems Plus	CP/M, MP/M	Compatible with operating system
	PCDOS	IBM PC and XT
	CP/M-86	DEC Rainbow
TCS Total Ledger System	CP/M 2.2 or equivalent	Compatible with operating system
Tech Soft	CP/M-80, CP/M-86 MS DOS, NorthstarDOS	Compatible with operating system
Thoroughbred	UNIX, XENIX	Compatible with operating system
Thoughtware Superchief	CP/M, CP/M-86, MP/M MSDOS, PCDOS TurboDOS	Compatible with operating system
Vandata	CP/M	8080, 8085, Z80 processors
Broderbund	UCSD-p	Apple
Small Business Systems Group	PC DOS, MS DOS	Compatible with operating system

However, not all packages address the requirements or had the above features. Many systems have a predefined chart of accounts that limit their usefulness or do not allow sufficient characters in the account code to implement a Section 15 chart of accounts in a straightforward manner. Others limit the number of accounts or some combination of accounts, vendors, and customers. The availability of a flexible report-writing capability which would allow preparation of Section 15 reports or the handling of non-financial accounts is extremely limited. Many packages limit the distribution of accounts payable voucher or accounts receivable invoice charges to a single account per document.

Based on our evaluation of the information obtained about the packages, evaluation checklists for four are included on the following pages. These are:

- Business Library from Software Libraries, Inc., Pasadena, California;

- Great Plains Software of Fargo, North Dakota;

- The Software Fitness Program from Open Systems, Inc., Minneapolis, Minnesota; and

- Soloman Series III from Soloman Systems, Inc.

These packages appear to address many of the requirements for small transit properties when considered on an integrated basis across all accounting functions. All offer some form of user-defined reporting capability and will permit a Section 15 chart of accounts. Of these, Open Systems appears to offer a flexible report-writing capability for its basic software, while the Business Library, Great Plains, and Soloman satisfy a large set of the total integrated requirements. All these packages operate on a wide variety of hardware and operating systems. However, they are certainly not the only ones which can work well at a transit property.

The Business Library will support a Section 15 account code structure and addresses the required and desirable general ledger reporting requirements, including having a strong budgeting capability. A weakness is its' not allowing more than one open accounting period. Its accounts payable and accounts receivable software also satisfy the basic requirements and the three applications are well integrated.

The Great Plains software also addresses the basic requirements of a transit agency with a broad range of capabilities. However its' ten character account number is limited to a 4-3-3 grouping which, while permitting a Section 15 structure, forces an agency to be somewhat imaginative in how the chart of accounts is defined.

The second and third parts of the account number must also be used for subsidiary or department accounts, further limiting its' usefulness. The user-defined reporting capability is provided through an interface to spreadsheet software which provides a very flexible capability. The accounts payable and accounts receivable software is well integrated with the general ledger and also provide the capabilities a transit property requires for these functions.

The Open Systems general ledger provides the most flexible account coding scheme and allows the user to keep all periods open until the close of the fiscal year. It has the full set of required reports but requires a separate package, the Team Manager, for development of user-defined reports. The capabilities of the accounts payable and accounts receivable packages are very good, and include virtually all of the transaction types and processing features. The three applications are also well integrated. Its batching of transactions also allows proofing and editing before posting and provides a strong control mechanism.

Soloman Series III also provides a very complete set of capabilities. Its' twelve character account code supports a Section 15 structure and it includes user-defined reporting capability. While it only allows a single period to be open at a time, adjustments can be made to prior periods. Accounts payable and accounts receivable are also well integrated. The accounts payable system is limited by a single account distribution per voucher. Also, none of the applications allow the user to preview reports on the screen.

The checklists on the following pages describe the features of each of these packages in more detail. Required features are indicated by an asterisk, with minimum volumes shown as appropriate.

MICROCOMPUTER SOFTWARE SELECTION CHECKLIST

GENERAL LEDGER

Package: Business Library
Hardware: PC DOS Compatible

		comments
ACCOUNT IDENTIFICATION		
*User-defined account codes	Yes [X] No [ ]	
*Number of characters (8)	8	
*Number of accounts (200-800)	unlimited	
Alphanumeric	Yes [X] No [ ]	
Non-financial accounts	Yes [ ] No [X]	
Subsidiary accounts	Yes [ ] No [ ]	
Department accounts	Yes [X] No [ ]	
Multiple ledgers	Yes [X] No [ ]	
ACCOUNTING PERIODS		
*Number per year (12-13)	12-13	
*User-defined fiscal year	Yes [X] No [ ]	
*Year-to-date balances	Yes [X] No [ ]	
*Multiple open periods	Yes [ ] No [X]	
Multiple year accounts	Yes [ ] No [X]	
REPORTS		
*Trial balance	Yes [X] No [ ]	
*Balance sheet	Yes [X] No [ ]	
*Income statement	Yes [X] No [ ]	
*Transaction detail	Yes [X] No [ ]	
*User-defined	Yes [X] No [ ]	limited
Prior year comparison	Yes [X] No [ ]	
Budget comparison	Yes [X] No [ ]	
Report by department	Yes [X] No [ ]	
Chart of accounts listing	Yes [X] No [ ]	
Preview report on screen	Yes [ ] No [ ]	
On-line balance inquiry	Yes [X] No [ ]	
Prior year-to-date balances	Yes [X] No [ ]	
Prior year period balances	Yes [X] No [ ]	
Budget amounts by period	Yes [X] No [ ]	
OTHER		
*Balance control	Yes [X] No [ ]	
*Field edit	Yes [X] No [ ]	Account number e.g.
*Number of transactions (500-800)	Unlimited	

* - Required ( ) - minimum volume

MICROCOMPUTER SOFTWARE SELECTION CHECKLIST

GENERAL LEDGER

Package: Business Library
Hardware: PC DOS Compatible

		comments
OTHER (continued)		
*Amount field size (10 million)	11 digits	
Integration with:		
Accounts Payable	Yes [X] No [ ]	
Accounts Receivable	Yes [X] No [ ]	
Payroll	Yes [X] No [ ]	
Spreadsheet	Yes [ ] No [ ]	
Fixed Assets	Yes [ ] No [ ]	
Auto-recurring entries	Yes [ ] No [ ]	
Auto-reversing entries	Yes [ ] No [ ]	

* - Required ( ) - minimum volume

MICROCOMPUTER SOFTWARE SELECTION CHECKLIST

ACCOUNTS PAYABLE

Package: Business Library

Hardware: PC DOS Compatible

			comments
PAYMENT SCHEDULING			
*Discount date tracking	Yes [X]	No [ ]	______
*Due date tracking	Yes [X]	No [ ]	______
*Vendor file	Yes [X]	No [ ]	______
*Voucher deferral	Yes [ ]	No [ ]	______
PAYMENT SELECTION			
*Automatic selection			
- all vouchers	Yes [ ]	No [ ]	______
- by discount date	Yes [X]	No [ ]	______
- by due date	Yes [X]	No [ ]	______
- by vendor	Yes [ ]	No [ ]	______
*Manual override to hold	Yes [X]	No [ ]	______
*Manual payment	Yes [X]	No [ ]	______
PAYMENT CALCULATION			
*Automatic calculation using discount	Yes [X]	No [ ]	______
Based on vendor terms	Yes [X]	No [ ]	______
*Manual override for partial payment	Yes [ ]	No [ ]	______
TRANSACTION TYPES			
Payment	Yes [X]	No [ ]	______
Partial payment	Yes [ ]	No [ ]	______
Debit memo	Yes [ ]	No [ ]	______
Credit memo	Yes [ ]	No [ ]	______
Prepayment	Yes [ ]	No [ ]	______
Void	Yes [X]	No [ ]	______
G/L DISTRIBUTION			
*Number of accounts (1 per voucher line)	______		______
CHECK PRINTING			
*Vendor Checks	Yes [X]	No [ ]	______
Check reprint	Yes [ ]	No [ ]	______

* - Required ( ) - minimum volume

MICROCOMPUTER SOFTWARE SELECTION CHECKLIST

ACCOUNTS PAYABLE

Package: Business Library
Hardware: PC DOS Compatible

			comments
REPORTS			
*Open invoice by vendor	Yes [X]	No [ ]	
*Open invoice by due date	Yes [X]	No [ ]	
*Cash requirements	Yes [X]	No [ ]	
*Check register	Yes [X]	No [ ]	
*Vendor list	Yes [X]	No [ ]	
*Transaction detail	Yes [ ]	No [ ]	
1099 forms	Yes [ ]	No [ ]	
Preview on screen	Yes [ ]	No [ ]	
VENDOR FILE			
*Number of characters (6-10)			
Alphanumeric	Yes [ ]	No [ ]	
*Number of vendors (300-1000)			
On-line inquiry	Yes [ ]	No [ ]	
OTHER			
Invoice field size (12-16)			
P.O. field size (6)			
Number of transactions (500-1000)			
Field edit	Yes [X]	No [ ]	
Balance control	Yes [ ]	No [ ]	
Check reconciliation	Yes [ ]	No [ ]	
Recurring payment	Yes [X]	No [ ]	
Integrated with:			
General ledger	Yes [X]	No [ ]	
Purchase order	Yes [ ]	No [ ]	

* - Required

( ) - minimum volume

MICROCOMPUTER SOFTWARE SELECTION CHECKLIST

ACCOUNTS RECEIVABLE

Package: Business Library
Hardware: PC DOS Compatible

		comments
TYPE		
Open Item/Balance Forward	OI [X] BF [ ]	
CUSTOMER FILE		
*Number of characters (6-10)		
Alphanumeric	Yes [ ] No [ ]	
*Number of customers (200-500)		
On-line inquiry	Yes [X] No [ ]	
TRANSACTION TYPES		
*Payment	Yes [X] No [ ]	
*Partial payment	Yes [ ] No [ ]	
*Overpayment	Yes [ ] No [ ]	
Credit memo	Yes [X] No [ ]	
Adjustments	Yes [X] No [ ]	
Miscellaneous cash	Yes [X] No [ ]	
G/L DISTRUBUTION		
*Account distribution		
REPORTS		
*Aged accounts receivable	Yes [X] No [ ]	
- by due date	Yes [ ] No [ ]	
- by invoice date	Yes [ ] No [ ]	
*Invoices	Yes [X] No [ ]	account statements
*Account statements	Yes [X] No [ ]	
Invoice reprint	Yes [ ] No [ ]	
Delinquincy notices	Yes [ ] No [ ]	
*Cash receipts journal	Yes [X] No [ ]	
*Customer list	Yes [X] No [ ]	
Mailing label	Yes [X] No [ ]	
Preview on screen	Yes [ ] No [ ]	

* - Required ( ) - minimum volume

MICROCOMPUTER SOFTWARE SELECTION CHECKLIST

ACCOUNTS RECEIVABLE

Package: Business Library
Hardware: PC DOS Compatible

OTHER FEATURES		comments
*Number of transactions (500-1000)	______	______
Purchase order field size	______	______
Credit limit check	Yes [X] No [ ]	______
Calculate/post discounts	Yes [X] No [ ]	______
Calculate/post late payment	Yes [ ] No [ ]	______
Recurring invoices	Yes [ ] No [ ]	______
Balance control	Yes [ ] No [ ]	______
Field edit	Yes [X] No [ ]	______
Integration with G/L	Yes [X] No [ ]	______

* - Required ( ) - minimum volume

MICROCOMPUTER SOFTWARE SELECTION CHECKLIST

GENERAL
Page 1 of 2

Package: Business Library
Hardware: PC DOS Compatible

			comments
EASE OF USE			
Menu driven	Yes [X]	No [ ]	____
Menu selections understandable	Yes [X]	No [ ]	____
Formatted input screens	Yes [X]	No [ ]	____
On-line help	Yes [ ]	No [ ]	____
Error messages understandable	Yes [ ]	No [ ]	____
EXPANDABILITY			
Pre-defined limits	Yes [ ]	No [ ]	____
Reconfigure without losing data	Yes [ ]	No [ ]	____
SECURITY AND CONTROL			
By system	Yes [ ]	No [ ]	____
By program	Yes [ ]	No [ ]	____
Data	Yes [ ]	No [ ]	____
Password	Yes [ ]	No [ ]	____
Balancing	Yes [ ]	No [ ]	____
Program sequence (run to run)	Yes [ ]	No [ ]	____
DOCUMENTATION			
Complete	Yes [ ]	No [ ]	____
Concise	Yes [ ]	No [ ]	____
Well organized	Yes [ ]	No [ ]	____
Table of contents	Yes [ ]	No [ ]	____
Index	Yes [ ]	No [ ]	____
Step by step instructions	Yes [ ]	No [ ]	____
Comprehensive illustrations	Yes [ ]	No [ ]	____
Understandable English	Yes [ ]	No [ ]	____
Error message descriptions	Yes [ ]	No [ ]	____
Trouble shooting section	Yes [ ]	No [ ]	____
VENDOR REPUTATION			
Reliability	Yes [ ]	No [ ]	____
Recommendations	Yes [ ]	No [ ]	____
Number of copies sold	____		____
Years in business	since 1981		____

MICROCOMPUTER SOFTWARE SELECTION CHECKLIST

GENERAL

Package: Business Library

Hardware: PC DOS Compatible

TRAINING AND SUPPORT			comments
Training program offered	Yes [ ]	No [ ]	____________
Tutorial disks	Yes [ ]	No [ ]	____________
Hotline	Yes [ ]	No [ ]	____________
Maintenance service	Yes [ ]	No [ ]	____________
Source code available	Yes [ ]	No [ ]	____________

MICROCOMPUTER SOFTWARE SELECTION CHECKLIST

GENERAL LEDGER
Page 1 of 2

Package: Great Plains - Hardisk V3.03
Hardware: IBM PC/XT/AT or Apple 2e/3

			comments
ACCOUNT IDENTIFICATION			
*User-defined accounts	Yes [X]	No [ ]	
*Number of characters (8)	10		XXXX-XXX-XXX
*Number of accounts (200-800)	32,767		
Alphanumeric	Yes [ ]	No [X]	
Non-financial accounts	Yes [ ]	No [X]	
Subsidiary accounts	Yes [X]	No [ ]	3 digits of account
Department accounts	Yes [X]	No [ ]	3 digits of account
Multiple ledgers	Yes [X]	No [ ]	
ACCOUNTING PERIODS			
*Number per year (12-13)	12		
*User-defined fiscal year	Yes [X]	No [ ]	
*Year-to-date balances	Yes [X]	No [ ]	
*Multiple open periods	Yes [X]	No [ ]	post any month
Multiple year accounts	Yes [ ]	No [X]	
REPORTS			
*Trial balance	Yes [X]	No [ ]	
*Balance sheet	Yes [X]	No [ ]	
*Income statement	Yes [X]	No [ ]	
*Transaction detail	Yes [X]	No [ ]	
*User-defined	Yes [ ]	No [X]	use spreadsheets
Prior year comparison	Yes [X]	No [ ]	
Budget comparison	Yes [X]	No [ ]	For profit/loss
Report by department	Yes [X]	No [ ]	Profit center
Chart of accounts listing	Yes [X]	No [ ]	
Preview report on screen	Yes [X]	No [ ]	
On-line balance inquiry	Yes [X]	No [ ]	
Prior year-to-date balances	Yes [X]	No [ ]	
Prior year period balances	Yes [X]	No [ ]	
Budget amounts by period	Yes [X]	No [ ]	
OTHER			
*Balance control	Yes [X]	No [ ]	Batch bal. to post
*Field edit	Yes [X]	No [ ]	Account number e.g.
*Number of transactions (500-800)	user defined/batch		limited by disk

* - Required ( ) - minimum volume

MICROCOMPUTER SOFTWARE SELECTION CHECKLIST

GENERAL LEDGER

Package: Great Plains - Hardisk V3.03
Hardware: IBM PC/XT/AT or Apple 2e/III

OTHER (continued)

			comments
*Amount field size (10 million)	10		
Integration with:			
Accounts Payable	Yes [X]	No [ ]	Common database
Accounts Receivable	Yes [X]	No [ ]	"
Payroll	Yes [X]	No [ ]	"
Spreadsheet	Yes [X]	No [ ]	
Fixed Assets	Yes [ ]	No [X]	
Auto-recurring entries	Yes [X]	No [ ]	Monthly post file
Auto-reversing entries	Yes [ ]	No [X]	

* - Required ( ) - minimum volume

MICROCOMPUTER SOFTWARE SELECTION CHECKLIST

ACCOUNTS PAYABLE
Page 1 of 2

Package: Great Plains - Hardisk V3.03
Hardware: IBM PC/XT/AT or Apple 2e/III

			comments
PAYMENT SCHEDULING			
*Discount date tracking	Yes [X]	No [ ]	
*Due date tracking	Yes [X]	No [ ]	
*Vendor file	Yes [X]	No [ ]	
*Voucher deferral	Yes [X]	No [ ]	
PAYMENT SELECTION			
*Automatic selection			
- all vouchers	Yes [X]	No [ ]	undefer all voucher
- by discount date	Yes [ ]	No [X]	
- by due date	Yes [X]	No [ ]	defer past due date
- by vendor	Yes [X]	No [ ]	by voucher
*Manual override to hold	Yes [X]	No [ ]	by deferring
*Manual payment	Yes [X]	No [ ]	"hand check"
PAYMENT CALCULATION			
*Automatic calculation using discount	Yes [X]	No [ ]	
Based on vendor terms	Yes [X]	No [ ]	
*Manual override for partial payment	Yes [X]	No [ ]	manual override
TRANSACTION TYPES			
Payment	Yes [X]	No [ ]	
Partial payment	Yes [X]	No [ ]	
Debit memo	Yes [ ]	No [X]	
Credit memo	Yes [ ]	No [X]	
Prepayment	Yes [ ]	No [X]	
Void	Yes [X]	No [ ]	
G/L DISTRIBUTION			
*Number of accounts (1 per voucher line)	16 per voucher		
CHECK PRINTING			
*Vendor Checks	Yes [X]	No [ ]	
Check reprint	Yes [X]	No [ ]	Void process

* - Required ( ) - minimum volume

MICROCOMPUTER SOFTWARE SELECTION CHECKLIST

ACCOUNTS PAYABLE
Page 2 of 2

Package: Great Plains - Hardisk V3.03
Hardware: IBM PC/XT/AT or Apple 2e/III

			comments
REPORTS			
*Open invoice by vendor	Yes [X]	No [ ]	See aged trial bal.
*Open invoice by due date	Yes [X]	No [ ]	Same as aging
*Cash requirements	Yes [X]	No [ ]	
*Check register	Yes [X]	No [ ]	
*Vendor list	Yes [X]	No [ ]	
*Transaction detail	Yes [X]	No [ ]	
1099 forms	Yes [ ]	No [X]	
Preview on screen	Yes [X]	No [ ]	not all reports
VENDOR FILE			
*Number of characters (6-10)	7		
Alphanumeric	Yes [X]	No [ ]	
*Number of vendors (300-1000)	32767		
On-line inquiry	Yes [X]	No [ ]	
OTHER			
Invoice field size (12-16)	10		
P.O. field size (6)	30		use description fld
Number of transactions (500-1000)	user defined		limited by disk
Field edit	Yes [X]	No [ ]	
Balance control	Yes [X]	No [ ]	batch bal to post
Check reconciliation	Yes [ ]	No [X]	
Recurring payment	Yes [ ]	No [X]	
Integrated with:			
General ledger	Yes [X]	No [ ]	
Purchase order	Yes [ ]	No [X]	

* - Required ( ) - minimum volume

MICROCOMPUTER SOFTWARE SELECTION CHECKLIST

ACCOUNTS RECEIVABLE

Package: Great Plains - Hardisk V3.03
Hardware: IBM PC/XT/AT or Apple 2e/III

		comments
TYPE		
Open Item/Balance Forward	OI [X] BF [X]	Select by customer
CUSTOMER FILE		
*Number of characters (6-10)	7	
Alphanumeric	Yes [X] No [ ]	
*Number of customers (200-500)	32767	
On-line inquiry	Yes [X] No [ ]	
TRANSACTION TYPES		
*Payment	Yes [X] No [ ]	{all transactions
*Partial payment	Yes [X] No [ ]	must be handled
*Overpayment	Yes [X] No [ ]	as either sales
Credit memo	Yes [ ] No [X]	or cash receipt}
Adjustments	Yes [ ] No [X]	
Miscellaneous cash	Yes [X] No [ ]	
G/L DISTRIBUTION		
*Account distribution	15 per invoice	
REPORTS		
*Aged accounts receivable	Yes [X] No [ ]	
- by due date	Yes [ ] No [X]	{uses transaction
- by invoice date	Yes [X] No [ ]	date given by user}
*Invoices	Yes [ ] No [X]	detail statements
*Account statements	Yes [X] No [ ]	
Invoice reprint	Yes [X] No [ ]	reprint statement
Delinquency notices	Yes [ ] No [X]	
*Cash receipts journal	Yes [X] No [ ]	
*Customer list	Yes [X] No [ ]	
Mailing labels	Yes [X] No [ ]	
Preview on screen	Yes [X] No [ ]	

* - Required ( ) - minimum volume

MICROCOMPUTER SOFTWARE SELECTION CHECKLIST

ACCOUNTS RECEIVABLE

Package: Great Plains - Hardisk V3.03
Hardware: IBM PC/XT/AT or Apple 2e/III

OTHER FEATURES

			comments
*Number of transactions (500-1000)	User defined batch		limited by disk
Purchase order field size	Use description fld		
Credit limit check	Yes [X]	No [ ]	
Calculate/post discounts	Yes [X]	No [ ]	
Calculate/post late payment	Yes [X]	No [ ]	"finance charges"
Recurring invoices	Yes [X]	No [ ]	"monthly" invoices
Balance control	Yes [X]	No [ ]	balance to post
Field edit	Yes [X]	No [ ]	
Integration with G/L	Yes [X]	No [ ]	

* - Required ( ) - minimum volume

MICROCOMPUTER SOFTWARE SELECTION CHECKLIST

GENERAL

Package: Great Plains - Hardisk
Hardware: IBM PC/XT or Apple 2e/3

			comments
EASE OF USE			
Menu driven	Yes [X]	No [ ]	
Menu selections understandable	Yes [X]	No [ ]	
Formatted input screens	Yes [X]	No [ ]	
On-line help	Yes [ ]	No [X]	
Error messages understandable	Yes [X]	No [ ]	
EXPANDABILITY			
Pre-defined limits	Yes [X]	No [ ]	but changeable
Reconfigure without losing data	Yes [X]	No [ ]	grow or shrink
SECURITY AND CONTROL			
By system	Yes [X]	No [ ]	password
By program	Yes [ ]	No [X]	
Data	Yes [ ]	No [X]	
Password	Yes [X]	No [ ]	system entry
Balancing	Yes [X]	No [ ]	batch & trans
Program sequence (run to run)	Yes [ ]	No [X]	
DOCUMENTATION			
Complete	Yes [X]	No [ ]	(Organized by
Concise	Yes [X]	No [ ]	screen, not
Well organized	Yes [X]	No [ ]	A/P function)
Table of contents	Yes [X]	No [ ]	
Index	Yes [X]	No [ ]	
Step by step instructions	Yes [X]	No [ ]	
Comprehensive illustrations	Yes [X]	No [ ]	
Understandable English	Yes [X]	No [ ]	
Error message descriptions	Yes [X]	No [ ]	
Trouble shooting section	Yes [ ]	No [X]	
VENDOR REPUTATION			
Reliability	Yes [X]	No [ ]	
Recommendations	Yes [ ]	No [ ]	
Number of copies sold			
Years in business			

MICROCOMPUTER SOFTWARE SELECTION CHECKLIST

GENERAL

Package: Great Plains - Hardisk V3.03
Hardware: IBM PC/XT/AT or Apple 2e/III

TRAINING AND SUPPORT

	Yes	No	comments
Training program offered	[ ]	[X]	
Tutorial disks	[ ]	[X]	Test data
Hotline	[X]	[ ]	
Maintenance service	[ ]	[ ]	
Source code available	[ ]	[X]	

MICROCOMPUTER SOFTWARE SELECTION CHECKLIST

GENERAL LEDGER

Package: Open Systems
Hardware: CP/M, DOS, UNIX Compatible

			comments
ACCOUNT IDENTIFICATION			
*User-defined account codes	Yes [X]	No [ ]	
*Number of characters (8)	12		
*Number of accounts (200-800)	unlimited		disk dependent
Alphanumeric	Yes [X]	No [ ]	
Non-financial accounts	Yes [ ]	No [X]	
Subsidiary accounts	Yes [ ]	No [X]	
Department accounts	Yes [ ]	No [X]	use account coding
Multiple ledgers	Yes [X]	No [ ]	
ACCOUNTING PERIODS			
*Number per year (12-13)	1-13		
*User-defined fiscal year	Yes [X]	No [ ]	
*Year-to-date balances	Yes [X]	No [ ]	
*Multiple open periods	Yes [X]	No [ ]	{all periods open
Multiple year accounts	Yes [ ]	No [X]	thru yearly close}
REPORTS			
*Trial balance	Yes [X]	No [ ]	
*Balance sheet	Yes [X]	No [ ]	
*Income statement	Yes [X]	No [ ]	
*Transaction detail	Yes [X]	No [ ]	
*User-defined	Yes [X]	No [ ]	use "Team Manager"
Prior year comparison	Yes [X]	No [ ]	
Budget comparison	Yes [X]	No [ ]	
Report by department	Yes [X]	No [ ]	
Chart of accounts listing	Yes [X]	No [ ]	
Preview report on screen	Yes [ ]	No [X]	
On-line balance inquiry	Yes [X]	No [ ]	
Prior year-to-date balances	Yes [X]	No [ ]	
Pior year period balances	Yes [X]	No [ ]	
Budget amounts by period	Yes [X]	No [ ]	
OTHER			
*Balance control	Yes [X]	No [ ]	
*Field edit	Yes [X]	No [ ]	Account number e.g.
*Number of transactions (500-800)	Unlimited		Disk Dependent

* - Required

( ) - minimum volume

MICROCOMPUTER SOFTWARE SELECTION CHECKLIST

GENERAL LEDGER

Package: Open Systems
Hardware: CP/M, DOS, UNIX Compatible

OTHER (continued)

		comments
*Amount field size (10 million)	9,999,999.99	Totals 9.2
Integration with:		
Accounts Payable	Yes [X] No [ ]	
Accounts Receivable	Yes [X] No [ ]	
Payroll	Yes [X] No [ ]	
Spreadsheet	Yes [ ] No [ ]	
Fixed Assets	Yes [ ] No [ ]	
Auto-recurring entries	Yes [X] No [ ]	
Auto-reversing entries	Yes [ ] No [X]	

* - Required ( ) - minimum volume

MICROCOMPUTER SOFTWARE SELECTION CHECKLIST

ACCOUNTS PAYABLE

Package: Open Systems
Hardware: CP/M, DOS, UNIX Compatible

			comments
PAYMENT SCHEDULING			
*Discount date tracking	Yes [X]	No [ ]	
*Due date tracking	Yes [X]	No [ ]	
*Vendor file	Yes [X]	No [ ]	
*Voucher deferral	Yes [X]	No [ ]	
PAYMENT SELECTION			
*Automatic selection			
- all vouchers	Yes [X]	No [ ]	
- by discount date	Yes [X]	No [ ]	
- by due date	Yes [X]	No [ ]	
- by vendor	Yes [X]	No [ ]	
*Manual override to hold	Yes [X]	No [ ]	
*Manual payment	Yes [X]	No [ ]	
PAYMENT CALCULATION			
*Automatic calculation using discount	Yes [X]	No [ ]	
Based on vendor terms	Yes [X]	No [ ]	
*Manual override for partial payment	Yes [X]	No [ ]	
TRANSACTION TYPES			
Payment	Yes [X]	No [ ]	
Partial payment	Yes [X]	No [ ]	
Debit memo	Yes [X]	No [ ]	
Credit memo	Yes [X]	No [ ]	
Prepayment	Yes [X]	No [ ]	
Void	Yes [ ]	No [X]	Delete / misc debit
G/L DISTRIBUTION			
*Number of accounts (1 per voucher line)	by line item		
CHECK PRINTING			
*Vendor Checks	Yes [X]	No [ ]	
Check reprint	Yes [X]	No [ ]	restart

* - Required ( ) - minimum volume

MICROCOMPUTER SOFTWARE SELECTION CHECKLIST

ACCOUNTS PAYABLE

Package: Open Systems
Hardware: CP/M, DOS, UNIX Compatible

			comments
REPORTS			
*Open invoice by vendor	Yes [X]	No [ ]	
*Open invoice by due date	Yes [X]	No [ ]	or discount date
*Cash requirements	Yes [X]	No [ ]	
*Check register	Yes [X]	No [ ]	
*Vendor list	Yes [X]	No [ ]	
*Transaction detail	Yes [X]	No [ ]	
1099 forms	Yes [ ]	No [X]	
Preview on screen	Yes [ ]	No [X]	
VENDOR FILE			
*Number of characters (6-10)	6		
Alphanumeric	Yes [ ]	No [ ]	
*Number of vendors (300-1000)	unlimited		disk dependent
On-line inquiry	Yes [X]	No [ ]	
OTHER			
Invoice field size (12-16)	8		
P.O. field size (6)	8		
Number of transactions (500-1000)	no limit		
Field edit	Yes [X]	No [ ]	
Balance control	Yes [X]	No [ ]	
Check reconciliation	Yes [ ]	No [X]	
Recurring payment	Yes [ ]	No [X]	
Integrated with:			
General ledger	Yes [X]	No [ ]	
Purchase order	Yes [X]	No [ ]	

* - Required ( ) - minimum volume

MICROCOMPUTER SOFTWARE SELECTION CHECKLIST

ACCOUNTS RECEIVABLE

Package: Open Systems
Hardware: CP/M, DOS, UNIX Compatible

			comments
TYPE			
Open Item/Balance Forward	OI [X]	BF [X]	Select by customer
CUSTOMER FILE			
*Number of characters (6-10)	6		
Alphanumeric	Yes [X]	No [ ]	
*Number of customers (200-500)	unlimited		disk dependent
On-line inquiry	Yes [X]	No [ ]	
TRANSACTION TYPES			
*Payment	Yes [X]	No [ ]	
*Partial payment	Yes [X]	No [ ]	
*Overpayment	Yes [X]	No [ ]	
Credit memo	Yes [X]	No [ ]	
Adjustments	Yes [X]	No [ ]	
Miscellaneous cash	Yes [X]	No [ ]	
G/L DISTRIBUTION			
*Account distribution	by line item		
REPORTS			
*Aged accounts receivable	Yes [X]	No [ ]	
- by due date	Yes [ ]	No [X]	
- by invoice date	Yes [X]	No [ ]	
*Invoices	Yes [X]	No [ ]	
*Account statements	Yes [X]	No [ ]	
Invoice reprint	Yes [X]	No [ ]	
Delinquency notices	Yes [ ]	No [ ]	
*Cash receipts journal	Yes [X]	No [ ]	
*Customer list	Yes [X]	No [ ]	
Mailing labels	Yes [X]	No [ ]	
Preview on screen	Yes [ ]	No [X]	

* - Required ( ) - minimum volume

MICROCOMPUTER SOFTWARE SELECTION CHECKLIST

ACCOUNTS RECEIVABLE

Package: Open Systems
Hardware: CP/M, DOS, UNIX Compatible

comments

OTHER FEATURES

*Number of transactions (500-1000)	no limit	
Purchase order field size	8	
Credit limit check	Yes [X] No [ ]	
Calculate/post discounts	Yes [X] No [ ]	
Calculate/post late payment	Yes [X] No [ ]	
Recurring invoices	Yes [ ] No [X]	
Balance control	Yes [X] No [ ]	
Field edit	Yes [X] No [ ]	
Integration with G/L	Yes [X] No [ ]	

* - Required ( ) - minimum volume

MICROCOMPUTER SOFTWARE SELECTION CHECKLIST

GENERAL
Page 1 of 2

Package: Open Systems
Hardware: CP/M, DOS, UNIX Compatible

			comments
EASE OF USE			
Menu driven	Yes [X]	No [ ]	
Menu selections understandable	Yes [X]	No [ ]	
Formatted input screens	Yes [X]	No [ ]	
On-line help	Yes [ ]	No [X]	
Error messages understandable	Yes [ ]	No [ ]	limited descr.
EXPANDABILITY			
Pre-defined limits	Yes [X]	No [ ]	
Reconfigure without losing data	Yes [X]	No [ ]	
SECURITY AND CONTROL			
By system	Yes [X]	No [ ]	{multilevel
By program	Yes [X]	No [ ]	password
Data	Yes [X]	No [ ]	protection
Password	Yes [X]	No [ ]	by function}
Balancing	Yes [X]	No [ ]	
Program sequence (run to run)	Yes [ ]	No [X]	
DOCUMENTATION			
Complete	Yes [X]	No [ ]	{aimed at 9th
Concise	Yes [X]	No [ ]	grade reading
Well organized	Yes [X]	No [ ]	level}
Table of contents	Yes [X]	No [ ]	
Index	Yes [X]	No [ ]	
Step by step instructions	Yes [X]	No [ ]	
Comprehensive illustrations	Yes [X]	No [ ]	
Understandable English	Yes [X]	No [ ]	
Error message descriptions	Yes [ ]	No [ ]	limited
Trouble shooting section	Yes [X]	No [ ]	
VENDOR REPUTATION			
Reliability	Yes [X]	No [ ]	
Recommendations	Yes [ ]	No [ ]	
Number of copies sold	400,000+		
Years in business	since 1974		

MICROCOMPUTER SOFTWARE SELECTION CHECKLIST

GENERAL
Page 2 of 2

Package: Open Systems
Hardware: CP/M, DOS, UNIX Compatible

TRAINING AND SUPPORT

			comments
Training program offered	Yes [X]	No [ ]	audio-visual
Tutorial disks	Yes [ ]	No [X]	
Hotline	Yes [X]	No [ ]	
Maintenance service	Yes [X]	No [ ]	
Source code available	Yes [X]	No [ ]	

MICROCOMPUTER SOFTWARE SELECTION CHECKLIST

GENERAL LEDGER

Package: Soloman Series III
Hardware: IBM PC/XT/AT

			comments
ACCOUNT IDENTIFICATION			
*User-defined accounts	Yes [X]	No [ ]	
*Number of characters (8)	12		6 acct, 6 sub-acct
*Number of accounts (200-800)	999,999		
Alphanumeric	Yes [X]	No [ ]	
Non-financial accounts	Yes [ ]	No [X]	
Subsidiary accounts	Yes [X]	No [ ]	
Department accounts	Yes [X]	No [ ]	Divsn consolidation
Multiple ledgers	Yes [X]	No [X]	By division feature
ACCOUNTING PERIODS			
*Number per year (12-13)	1 - 13		
*User-defined fiscal year	Yes [X]	No [ ]	
*Year-to-date balances	Yes [X]	No [ ]	
*Multiple open periods	Yes [ ]	No [X]	Prior period adjust
Multiple year accounts	Yes [ ]	No [X]	
REPORTS			
*Trial balance	Yes [X]	No [ ]	
*Balance sheet	Yes [X]	No [ ]	
*Income statement	Yes [X]	No [ ]	
*Transaction detail	Yes [X]	No [ ]	
*User-defined	Yes [X]	No [ ]	
Prior year comparison	Yes [X]	No [ ]	After using a year
Budget comparison	Yes [X]	No [ ]	
Report by department	Yes [X]	No [ ]	Use divsn/sub-acct
Chart of accounts listing	Yes [X]	No [ ]	
Preview report on screen	Yes [ ]	No [X]	
On-line balance inquiry	Yes [X]	No [ ]	
Prior year-to-date balances	Yes [X]	No [ ]	
Prior year period balances	Yes [X]	No [ ]	
Budget amounts by period	Yes [X]	No [ ]	
OTHER			
*Balance control	Yes [X]	No [ ]	Batch bal. to post
*Field edit	Yes [X]	No [ ]	Account number e.g.
*Number of transactions (500-800)	Unlimited		

* - Required ( ) - minimum volume

MICROCOMPUTER SOFTWARE SELECTION CHECKLIST

GENERAL LEDGER

Package: Soloman Series III
Hardware: IBM PC/XT/AT

			comments
OTHER (continued)			
*Amount field size (10 million)	999,999,999.99		
Integration with:			
Accounts Payable	Yes [X]	No [ ]	Common database
Accounts Receivable	Yes [X]	No [ ]	"
Payroll	Yes [X]	No [ ]	"
Spreadsheet	Yes [ ]	No [X]	
Fixed Assets	Yes [ ]	No [X]	
Auto-recurring entries	Yes [X]	No [ ]	
Auto-reversing entries	Yes [X]	No [ ]	

* - Required ( ) - minimum volume

MICROCOMPUTER SOFTWARE SELECTION CHECKLIST

ACCOUNTS PAYABLE
Page 1 of 2

Package: Soloman Series III
Hardware: IBM PC/XT/AT

			comments
PAYMENT SCHEDULING			
*Discount date tracking	Yes [X]	No [ ]	
*Due date tracking	Yes [X]	No [ ]	
*Vendor file	Yes [X]	No [ ]	
*Voucher deferral	Yes [X]	No [ ]	
PAYMENT SELECTION			
*Automatic selection			
- all vouchers	Yes [X]	No [ ]	pay date,ref,vouchr
- by discount date	Yes [X]	No [ ]	{pay date as given
- by due date	Yes [X]	No [ ]	for each vendor}
- by vendor	Yes [X]	No [ ]	
*Manual override to hold	Yes [X]	No [ ]	
*Manual payment	Yes [X]	No [ ]	"hand check"
PAYMENT CALCULATION			
*Automatic calculation using discount	Yes [X]	No [ ]	
Based on vendor terms	Yes [X]	No [ ]	
*Manual override for partial payment	Yes [ ]	No [X]	
TRANSACTION TYPES			
Payment	Yes [X]	No [ ]	
Partial payment	Yes [ ]	No [X]	
Debit memo	Yes [X]	No [ ]	
Credit memo	Yes [X]	No [ ]	
Prepayment	Yes [ ]	No [X]	not shown in manual
Void	Yes [X]	No [ ]	
G/L DISTRIBUTION			
*Number of accounts (1 per voucher line)	1 account/voucher		
CHECK PRINTING			
*Vendor Checks	Yes [X]	No [ ]	
Check reprint	Yes [X]	No [ ]	Void process

* - Required ( ) - minimum volume

MICROCOMPUTER SOFTWARE SELECTION CHECKLIST

ACCOUNTS PAYABLE

Package: Solomon Series III
Hardware: IBM PC/XT/AT

			comments
REPORTS			
*Open invoice by vendor	Yes [X]	No [ ]	vendor trial bal.
*Open invoice by due date	Yes [X]	No [ ]	cash reqt. report
*Cash requirements	Yes [X]	No [ ]	
*Check register	Yes [X]	No [ ]	
*Vendor list	Yes [X]	No [ ]	
*Transaction detail	Yes [X]	No [ ]	
1099 forms	Yes [ ]	No [X]	
Preview on screen	Yes [ ]	No [X]	
VENDOR FILE			
*Number of characters (6-10)	6		
Alphanumeric	Yes [X]	No [ ]	
*Number of vendors (300-1000)	unlimited		limited by disk
On-line inquiry	Yes [X]	No [ ]	
OTHER			
Invoice field size (12-16)	10		
P.O. field size (6)	6		
Number of transactions (500-1000)	unlimited		limited by disk
Field edit	Yes [X]	No [ ]	
Balance control	Yes [X]	No [ ]	batch, document
Check reconciliation	Yes [X]	No [ ]	
Recurring payment	Yes [X]	No [ ]	
Integrated with:			
General ledger	Yes [X]	No [ ]	common data base
Purchase order	Yes [ ]	No [X]	

* - Required

( ) - minimum volume

MICROCOMPUTER SOFTWARE SELECTION CHECKLIST

ACCOUNTS RECEIVABLE

Package: Soloman Series III

Hardware: IBM PC/XT/AT

		comments
TYPE		
Open Item/Balance Forward	OI [X] BF [X]	Select by customer
CUSTOMER FILE		
*Number of characters (6-10)	6	
Alphanumeric	Yes [X] No [ ]	
*Number of customers (200-500)	unlimited	limited by disk
On-line inquiry	Yes [X] No [ ]	
TRANSACTION TYPES		
*Payment	Yes [X] No [ ]	
*Partial payment	Yes [X] No [ ]	
*Overpayment	Yes [X] No [ ]	
Credit memo	Yes [X] No [ ]	
Adjustments	Yes [ ] No [X]	As DR/CR memo
Miscellaneous cash	Yes [X] No [ ]	
G/L DISTRIBUTION		
*Account distribution	by invoice line	
REPORTS		
*Aged accounts receivable	Yes [X] No [ ]	
- by due date	Yes [X] No [ ]	
- by invoice date	Yes [ ] No [X]	
*Invoices	Yes [X] No [ ]	in multiple cycles
*Account statements	Yes [X] No [ ]	
Invoice reprint	Yes [X] No [ ]	no activity detail
Delinquincy notices	Yes [ ] No [ ]	
*Cash receipts journal	Yes [ ] No [X]	
*Customer list	Yes [X] No [ ]	
Mailing labels	Yes [ ] No [X]	"Address" subsystem
Preview on screen	Yes [ ] No [X]	

* - Required ( ) - minimum volume

MICROCOMPUTER SOFTWARE SELECTION CHECKLIST

ACCOUNTS RECEIVABLE

Package: Soloman Series III
Hardware: IBM PC/XT/AT

OTHER FEATURES

		comments
*Number of transactions (500-1000)	unlimited	except by disk
Purchase order field size	15 char inv. descr.	
Credit limit check	Yes [X] No [ ]	
Calculate/post discounts	Yes [X] No [ ]	at user option
Calculate/post late payment	Yes [X] No [ ]	"finance charges"
Recurring invoices	Yes [X] No [ ]	
Balance control	Yes [X] No [ ]	batch, document
Field edit	Yes [X] No [ ]	
Integration with G/L	Yes [X] No [ ]	common data base

* - Required ( ) - minimum volume

MICROCOMPUTER SOFTWARE SELECTION CHECKLIST

GENERAL

Package: Soloman Series III

Hardware: IBM PC/XT/AT

			comments
EASE OF USE			
Menu driven	Yes [X]	No [ ]	
Menu selections understandable	Yes [X]	No [ ]	
Formatted input screens	Yes [X]	No [ ]	
On-line help	Yes [ ]	No [X]	
Error messages understandable	Yes [X]	No [ ]	
EXPANDABILITY			
Pre-defined limits	Yes [X]	No [ ]	but changeable
Reconfigure without losing data	Yes [X]	No [ ]	grow files
SECURITY AND CONTROL			
By system	Yes [X]	No [ ]	password
By program	Yes [ ]	No [X]	
Data	Yes [ ]	No [X]	
Password	Yes [X]	No [ ]	system entry
Balancing	Yes [X]	No [ ]	batch
Program sequence (run to run)	Yes [ ]	No [X]	
DOCUMENTATION			
Complete	Yes [X]	No [ ]	
Concise	Yes [X]	No [ ]	
Well organized	Yes [X]	No [ ]	
Table of contents	Yes [X]	No [ ]	
Index	Yes [X]	No [ ]	
Step by step instructions	Yes [X]	No [ ]	
Comprehensive illustrations	Yes [X]	No [ ]	
Understandable English	Yes [X]	No [ ]	
Error message descriptions	Yes [X]	No [ ]	Gives response
Trouble shooting section	Yes [ ]	No [X]	
VENDOR REPUTATION			
Reliability	Yes [ ]	No [ ]	
Recommendations	Yes [ ]	No [ ]	
Number of copies sold	400+		
Years in business	since 1979		

MICROCOMPUTER SOFTWARE SELECTION CHECKLIST

GENERAL

Package: Soloman Series III
Hardware: IBM PC/XT/AT

TRAINING AND SUPPORT

	Yes	No	comments
Training program offered	Yes [ ]	No [X]	
Tutorial disks	Yes [ ]	No [X]	Test data
Hotline	Yes [X]	No [ ]	
Maintenance service	Yes [X]	No [ ]	Support plan
Source code available	Yes [ ]	No [X]	

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APPENDIX

MICROCOMPUTER SOFTWARE SELECTION CHECKLIST

MICROCOMPUTER SOFTWARE SELECTION CHECKLIST

GENERAL LEDGER

Package: ______________________________
Hardware: ______________________________

			comments
ACCOUNT IDENTIFICATION			
*User-defined accounts	Yes [ ]	No [ ]	____________
*Number of characters (8)	____________		____________
*Number of accounts (200-800)	____________		____________
Alphanumeric	Yes [ ]	No [ ]	____________
Non-financial accounts	Yes [ ]	No [ ]	____________
Subsidiary accounts	Yes [ ]	No [ ]	____________
Department accounts	Yes [ ]	No [ ]	____________
Multiple ledgers	Yes [ ]	No [ ]	____________
ACCOUNTING PERIODS			
*Number per year (12-13)	____________		____________
*User-defined fiscal year	Yes [ ]	No [ ]	____________
*Year-to-date balances	Yes [ ]	No [ ]	____________
*Multiple open periods	Yes [ ]	No [ ]	____________
Multiple year accounts	Yes [ ]	No [ ]	____________
REPORTS			
*Trial balance	Yes [ ]	No [ ]	____________
*Balance sheet	Yes [ ]	No [ ]	____________
*Income statement	Yes [ ]	No [ ]	____________
*Transaction detail	Yes [ ]	No [ ]	____________
*User-defined	Yes [ ]	No [ ]	____________
Prior year comparison	Yes [ ]	No [ ]	____________
Budget comparison	Yes [ ]	No [ ]	____________
Report by department	Yes [ ]	No [ ]	____________
Chart of accounts listing	Yes [ ]	No [ ]	____________
Preview report on screen	Yes [ ]	No [ ]	____________
On-line balance inquiry	Yes [ ]	No [ ]	____________
Prior year-to-date balances	Yes [ ]	No [ ]	____________
Prior year period balances	Yes [ ]	No [ ]	____________
Budget amounts by period	Yes [ ]	No [ ]	____________
OTHER			
*Balance control	Yes [ ]	No [ ]	____________
*Field edit	Yes [ ]	No [ ]	____________
*Number of transactions (500-800)	____________		____________

* - Required ( ) - minimum volume

MICROCOMPUTER SOFTWARE SELECTION CHECKLIST

GENERAL LEDGER

Package: ______________________________
Hardware: ______________________________

			comments
OTHER (continued)			
*Amount field size (10 million)	____________		____________
Integration with:			
Accounts Payable	Yes [ ]	No [ ]	____________
Accounts Receivable	Yes [ ]	No [ ]	____________
Payroll	Yes [ ]	No [ ]	____________
Spreadsheet	Yes [ ]	No [ ]	____________
Fixed Assets	Yes [ ]	No [ ]	____________
Auto-recurring entries	Yes [ ]	No [ ]	____________
Auto-reversing entries	Yes [ ]	No [ ]	____________

* - Required ( ) - minimum volume

MICROCOMPUTER SOFTWARE SELECTION CHECKLIST

ACCOUNTS PAYABLE
Page 1 of 2

Package: ______________________________
Hardware: ______________________________

PAYMENT SCHEDULING

			comments
*Discount date tracking	Yes [ ]	No [ ]	____________
*Due date tracking	Yes [ ]	No [ ]	____________
*Vendor file	Yes [ ]	No [ ]	____________
*Voucher deferral	Yes [ ]	No [ ]	____________

PAYMENT SELECTION

*Automatic selection			
- all vouchers	Yes [ ]	No [ ]	____________
- by discount date	Yes [ ]	No [ ]	____________
- by due date	Yes [ ]	No [ ]	____________
- by vendor	Yes [ ]	No [ ]	____________
*Manual override to hold	Yes [ ]	No [ ]	____________
*Manual payment	Yes [ ]	No [ ]	____________

PAYMENT CALCULATION

*Automatic calculation using discount	Yes [ ]	No [ ]	____________
Based on vendor terms	Yes [ ]	No [ ]	____________
*Manual override for partial payment	Yes [ ]	No [ ]	____________

TRANSACTION TYPES

Payment	Yes [ ]	No [ ]	____________
Partial payment	Yes [ ]	No [ ]	____________
Debit memo	Yes [ ]	No [ ]	____________
Credit memo	Yes [ ]	No [ ]	____________
Prepayment	Yes [ ]	No [ ]	____________
Void	Yes [ ]	No [ ]	____________

G/L DISTRIBUTION

*Number of accounts (1 per voucher line)	____________	____________

CHECK PRINTING

*Vendor Checks	Yes [ ]	No [ ]	____________
Check reprint	Yes [ ]	No [ ]	____________

* - required ( ) - minimum volume

MICROCOMPUTER SOFTWARE SELECTION CHECKLIST

ACCOUNTS PAYABLE

Package: ______________________________
Hardware: ______________________________

			comments
REPORTS			
*Open invoice by vendor	Yes [ ]	No [ ]	____________
*Open invoice by due date	Yes [ ]	No [ ]	____________
*Cash requirements	Yes [ ]	No [ ]	____________
*Check register	Yes [ ]	No [ ]	____________
*Vendor list	Yes [ ]	No [ ]	____________
*Transaction detail	Yes [ ]	No [ ]	____________
1099 forms	Yes [ ]	No [ ]	____________
Preview on screen	Yes [ ]	No [ ]	____________
VENDOR FILE			
*Number of characters (6-10)	____________		____________
Alphanumeric	Yes [ ]	No [ ]	____________
*Number of vendors (300-1000)	____________		____________
On-line inquiry	Yes [ ]	No [ ]	____________
OTHER			
Invoice field size (12-16)	____________		____________
P.O. field size (6)	____________		____________
Number of transactions (500-1000)	____________		____________
Field edit	Yes [ ]	No [ ]	____________
Balance control	Yes [ ]	No [ ]	____________
Check reconciliation	Yes [ ]	No [ ]	____________
Recurring payment	Yes [ ]	No [ ]	____________
Integrated with:			
General ledger	Yes [ ]	No [ ]	____________
Purchase order	Yes [ ]	No [ ]	____________

* - required ( ) - minimum volume

MICROCOMPUTER SOFTWARE SELECTION CHECKLIST

ACCOUNTS RECEIVABLE
Page 1 of 2

Package: ______________________________
Hardware: ______________________________

			comments
TYPE			
Open Item/Balance Forward	OI [ ]	BF [ ]	____________
CUSTOMER FILE			
*Number of characters (6-10)	____________		____________
Alphanumeric	Yes [ ]	No [ ]	____________
*Number of customers (200-500)	____________		____________
On-line inquiry	Yes [ ]	No [ ]	____________
TRANSACTION TYPES			
*Payment	Yes [ ]	No [ ]	____________
*Partial payment	Yes [ ]	No [ ]	____________
*Overpayment	Yes [ ]	No [ ]	____________
Credit memo	Yes [ ]	No [ ]	____________
Adjustments	Yes [ ]	No [ ]	____________
Miscellaneous cash	Yes [ ]	No [ ]	____________
G/L DISTRIBUTION			
*Account distribution	____________		____________
REPORTS			
*Aged accounts receivable	Yes [ ]	No [ ]	____________
- by due date	Yes [ ]	No [ ]	____________
- by invoice date	Yes [ ]	No [ ]	____________
*Invoices	Yes [ ]	No [ ]	____________
*Account statements	Yes [ ]	No [ ]	____________
Invoice reprint	Yes [ ]	No [ ]	____________
Delinquency notices	Yes [ ]	No [ ]	____________
*Cash receipts journal	Yes [ ]	No [ ]	____________
*Customer list	Yes [ ]	No [ ]	____________
Mailing labels	Yes [ ]	No [ ]	____________
Preview on screen	Yes [ ]	No [ ]	____________

* - required ( ) - minimum volume

MICROCOMPUTER SOFTWARE SELECTION CHECKLIST

ACCOUNTS RECEIVABLE

Package: ______________________________
Hardware: ______________________________

		comments
OTHER FEATURES		
*Number of transactions (500-1000)	____________	____________
Purchase order field size	____________	____________
Credit limit check	Yes [ ] No [ ]	____________
Calculate/post discounts	Yes [ ] No [ ]	____________
Calculate/post late payment	Yes [ ] No [ ]	____________
Recurring invoices	Yes [ ] No [ ]	____________
Balance control	Yes [ ] No [ ]	____________
Field edit	Yes [ ] No [ ]	____________
Integration with G/L	Yes [ ] No [ ]	____________

* - required ( ) - minimum volume

MICROCOMPUTER SOFTWARE SELECTION CHECKLIST

GENERAL

Package: ______________________________
Hardware: ______________________________

			comments
EASE OF USE			
Menu driven	Yes [ ]	No [ ]	____________
Menu selections understandable	Yes [ ]	No [ ]	____________
Formatted input screens	Yes [ ]	No [ ]	____________
On-line help	Yes [ ]	No [ ]	____________
Error messages understandable	Yes [ ]	No [ ]	____________
EXPANDABILITY			
Pre-defined limits	Yes [ ]	No [ ]	____________
Reconfigure without losing data	Yes [ ]	No [ ]	____________
SECURITY AND CONTROL			
By system	Yes [ ]	No [ ]	____________
By program	Yes [ ]	No [ ]	____________
Data	Yes [ ]	No [ ]	____________
Password	Yes [ ]	No [ ]	____________
Balancing	Yes [ ]	No [ ]	____________
Program sequence (run to run)	Yes [ ]	No [ ]	____________
DOCUMENTATION			
Complete	Yes [ ]	No [ ]	____________
Concise	Yes [ ]	No [ ]	____________
Well organized	Yes [ ]	No [ ]	____________
Table of contents	Yes [ ]	No [ ]	____________
Index	Yes [ ]	No [ ]	____________
Step by step instructions	Yes [ ]	No [ ]	____________
Comprehensive illustrations	Yes [ ]	No [ ]	____________
Understandable English	Yes [ ]	No [ ]	____________
Error message descriptions	Yes [ ]	No [ ]	____________
Trouble shooting section	Yes [ ]	No [ ]	____________
VENDOR REPUTATION			
Reliability	Yes [ ]	No [ ]	____________
Recommendations	Yes [ ]	No [ ]	____________
Number of copies sold	____________		____________
Years in business	____________		____________

MICROCOMPUTER SOFTWARE SELECTION CHECKLIST

GENERAL

Package: ______________________________
Hardware: ______________________________

TRAINING AND SUPPORT			comments
Training program offered	Yes [ ]	No [ ]	____________
Tutorial disks	Yes [ ]	No [ ]	____________
Hotline	Yes [ ]	No [ ]	____________
Maintenance service	Yes [ ]	No [ ]	____________
Source code available	Yes [ ]	No [ ]	____________

Technical Report Documentation Page

1. Report No.	2. Government Accession No.	3. Recipient's Catalog No.
UMTA-DC-06-0499-86-1		
4. Title and Subtitle A Review of Accounting Software for Transit		5. Report Date February 1986
		6. Performing Organization Code
7. Author(s) Mr. Mark Goldman		8. Performing Organization Report No.
9. Performing Organization Name and Address Peat, Marwick, Mitchell & Co. 1990 K St., N.W. Washington, D.C. 20006		10. Work Unit No. (TRAIS) URT-41
		11. Contract or Grant No.
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration 400 Seventh Street, S.W. Washington, D. C. 20590		13. Type of Report and Period Covered Software Review
		14. Sponsoring Agency Code URT-41

15. Supplementary Notes

16. Abstract

This report helps eliminate some of the mystery associated with the selection of general accounting software for use on microcomputers. It details the transit agency requirements for general ledger, accounts payable, and accounts receivable functions and describes the specific items that make a transit agency different from commercial enterprises. Included with the discussion of requirements is a description of the features a software package should have to address each requirement.

This look at a transit agency's accounting requirements is followed by a discussion of the subjective factors involved in software selection. It explains what to look for and expect in the areas of training, support, and documentation, and describes how to proceed with the selection process. Sources of information about microcomputer software packages are presented along with a discussion of the types of material from which to obtain detailed package information. The appendix contains a set software selection checklists which help in the evaluation of package software.

17. Key Words	18. Distribution Statement
Microcomputers; Accounting	Available to the Public through the National Technical Information Service, Springfield, Virginia 22161.

19. Security Classif. (of this report)	20. Security Classif. (of this page)	21. No. of Pages	22. Price
Unclassified	Unclassified	80	

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