

P.N. ABK-602

75948

**Agency for International Development
Latin America and the Caribbean Regional Financial Management
Improvement Project (LAC/RFMIP)**

**Report on the Evaluation of Software Packages for a P.C.-Based Accounting
System**

March 1, 1992

Price Waterhouse



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**Contract No. LAC-0658-C-00-9021-00
Project No. 598-0658**

**AGENCY FOR INTERNATIONAL DEVELOPMENT
LATIN AMERICAN AND THE CARIBBEAN
REGIONAL FINANCIAL MANAGEMENT IMPROVEMENT PROJECT**

***Report on the Evaluation of Software Packages
for a P.C.-Based Accounting System***

Executive Summary	i
Summary List of Accounting Software Packages	1
Software Package Prequalification	2
System Requirements Evaluation	4
Evaluation Considerations	6
Conditions and Requirements for Successful Accounting Software Package Implementation	8
Implementation Checklist	10
Project Start-up	12

EXECUTIVE SUMMARY

The evaluation activities conducted followed the guidelines of Price Waterhouse's Systems Management Methodology (SMM) for the evaluation of software packages. The forms utilized were customized to better describe the criteria used.

The following forms were utilized for the software package evaluation:

- List of Accounting Software Packages Requested, Received, and Reviewed
- Software Package Prequalification Worksheet
- System Requirement Worksheet
- Vendor Appraisal Worksheet

SUMMARY LIST OF ACCOUNTING SOFTWARE PACKAGES

The List of Accounting Software Packages was developed based on information collected in the U.S. and Central and South America with the assistance of our Price Waterhouse offices in the region. Another source of information were computer magazines available in the market which included several review articles on currently available PC-based accounting software packages.

A list of accounting software package vendors was developed selecting a wide variety of competitive packages. Vendors were contacted and the related product information was requested. The product information requested included, but was not limited to, product demo diskettes, general product information for single and multi-user configurations, product price lists, and information regarding the availability of the product in other languages, particularly Spanish. Additionally, vendors were requested to indicate whether or not the product's source code was available for possible custom changes, and if technical support was available throughout the LAC region.

The information listed includes the product name and its version, the vendor name and location, the product information received; that is, literature, demo disk, and/or vendor presentation of the product. The list also indicates whether the information requested was received and/or reviewed, the result of the review, and the corresponding comments.

SOFTWARE PACKAGE PREQUALIFICATION

After reviewing the product information received, the Software Package Prequalification Worksheet was used to grade the products based on the essential (priority = E) system requirements defined for prequalification. Among the prequalification requirements identified for the packages were:

- General Ledger and Budgeting capabilities;
- Account key size, flexibility, and adaptability to most chart of accounts structure;
- Availability of a report generator;
- Availability of system documentation and training materials in English and Spanish;
- Wide vendor technical support in the LAC region;
- System's compliance with industry standard DOS environment;
- System usability in single and multi-user environments;
- Availability of additional integrated modules such as Fixed Assets, Accounts Payable, Accounts Receivable, Payroll, and Inventory.

Each requirement was assigned a weight of one (1) and the grading scale was either zero or one (0/1). The prequalification requirement was that all requirements were to be met; allowing a maximum score of eight (8) points.

Each Software Package Prequalification Worksheet attached includes the corresponding prequalification evaluation of each package received. From the information reviewed, only three packages complied with the prequalification requirements:

*...Evaluation of
Software
Packages for a
P.C.-Based
Accounting
System*

- o **Sistemas Inteligentes**
- o **Solomon III**
- o **TecApro**

The account key size and flexibility, the multi-language capability, and the LAC regional vendor support capability were the determining factors for the results obtained.

*Software List
Prequalification*

SYSTEM REQUIREMENTS EVALUATION

After prequalifying the software packages, the System Requirements Worksheet was used to conduct the detailed system evaluation of the three qualified packages listed above. The requirements included were defined based on requirements identified after reviewing several AID-funded projects, our understanding and experience in evaluating accounting software packages, and the application of our structured Systems Management Methodology (SMM) for the evaluation of software packages.

The detailed system features were included in the System Requirements Worksheet while the detailed vendor support considerations were included in the Vendor Appraisal Worksheet. The following is a summary of the evaluation criteria detailed in the corresponding forms and the assigned points. The grading scale defined for both forms ranged from zero to ten (0-10) points per graded requirement.

<u>EVALUATION CRITERIA:</u>		<u>POINTS</u>
I.	System Features	
	A. General Ledger	125
	B. Budgeting and Budget Execution Control	125
	C. Reporting	125
	D. File Structures	50
	E. Other Modules	50
	F. Ease of Use	125
	G. Hardware Configuration	<u>100</u>
		700

II. Vendor Support	<u>300</u>
III. Total Evaluation Points	<u>1,000</u>

The evaluation conducted as shown on the System Requirements Worksheet generated the following results:

○	Sistemas Inteligentes	not evaluated
○	Solomon III	5085
○	TecApro points	5885

The vendor support evaluation as shown in the Vendor Appraisal Worksheet generated the following results:

○	Sistemas Inteligentes	not evaluated
○	Solomon III points	1530
○	TecApro points	2180

EVALUATION CONSIDERATIONS

Sistemas Inteligentes

The product information provided was not adequate to conduct a complete evaluation, and the Guatemalan firm that markets the package was not very responsive to our requests for information.

We were interested in giving careful attention to all possible alternatives and requested additional documentation and/or demo diskettes: however, none were provided. We scheduled a product presentation with the vendor, but the firm representative did not keep the appointment. After repeated efforts to obtain sufficient information were unsuccessful, we had to eliminate this package from consideration.

Solomon III

Solomon III has received excellent reviews in the past and is still one of the strongest PC-based accounting software packages in the market. The Solomon representative for Latin America, TADE in Ecuador, is currently in the process of translating the package into Spanish. The version we reviewed was only partially translated; neither the Spanish release nor its translated documentation is expected to be available anytime soon.

TecaPro

TecApro is a very flexible financial, accounting, and reporting software package with a powerful report generator capable of generating sophisticated financial accounting and control reports. The total flexibility of its account numbering, coupled with its unique file structure, made it the only package we found that was able to meet all of our processing and reporting requirements.

*...Evaluation of
Software
Packages for a
P.C.-Based
Accounting
System*

Its current use at various AID-funded projects and its expanded technical support in the LAC region were other important positive factors about the product. Another strong consideration was the location of its headquarters and technical support offices in San José, Costa Rica.

*Evaluation
Considerations*

CONDITIONS AND REQUIREMENTS FOR SUCCESSFUL ACCOUNTING SOFTWARE PACKAGE IMPLEMENTATION

The objective of this element of LAC/RFMIP was to identify a PC-based accounting software package flexible enough to work in a wide range of situations, from small single-office entities with simple requirements, to large multi-office organizations with complex and sophisticated needs. Based on our evaluation, we found that the TecApro accounting software package is capable of satisfying the requirements of most private volunteer organizations (PVOs), non-governmental organizations (NGOs), and host country government entities in the LAC region that receive donor agency funds. This section of our report describes the types of institutions for which the TecApro package is appropriate, including the basic criteria for successful implementation and the conditions to be met prior to implementation.

At the lower end of the spectrum, implementation of the system makes few demands. It can be set up on any DOS-based microcomputer with a fixed disk, requiring neither expanded memory nor excessive amounts of disk space. It does need a wide-carriage printer since many accounting reports are wider than 80 characters. It needs only those environmental conditions normal for any microcomputer: a stable power source and a reasonably clean work area with stable temperature. Defining information needs, designing a plan of accounts to meet those needs and designing reports are the most complicated tasks. Once these are completed, actual implementation and training is generally not burdensome.

While there is obviously no lower limit to the size of the organization for which the package could be used, it is unlikely to be cost-effective where the volume of accounting transactions is less than 10-20 per month. It can be effectively implemented in an office where personnel do not have experience with computers and/or computer-based systems, provided that ready access to outside support is available.

Once the package has been installed in a few small entities of a given type (i.e. PVO, NGO, host government,) implementing it in additional entities of that type will be simplified. The first implementation should present the majority of the variables, the

second and third complete the learning curve, and subsequent implementations become virtually automatic.

Implementation of the system in a complex environment (i.e. PDA) is a project in and of itself. While each successive implementation should become easier, these are not amenable to systematization. Their complexities mandate individual review of the organization's information requirements, development of a specialized chart of accounts and design of customized reports. The exact configuration of the hardware environment will be critical to assure capacity, access and reliability. Training personnel in the more advanced features of the system will be required in order to allow sophisticated organizations to avail themselves of these capabilities.

The current release of the package has a limit of 10,000 active accounts per "company", which may present problems to larger entities. TecApro has advised that this restriction will be relaxed or eliminated in forthcoming releases. We have observed the system successfully operating in a large family planning institution in Guatemala. Operating on a network with approximately 40 terminals, it clearly demonstrated its ability to accommodate networks and simultaneous access by multiple users.

Initial implementation should include no more than two or three of the nine modules currently available (General Ledger, Budget, Bank Reconciliation, Check Writing, Accounts Receivable, Accounts Payable, Inventory, Fixed Assets, Payroll). Additional modules, as required, should be scheduled for implementation after a reasonable time period.

IMPLEMENTATION CHECKLIST

Basic Conditions

✓ **Management Support**

Top management of the institution must actively support the implementation of the system. This is the single most important requirement.

✓ **Current Accounting/Financial Information**

The institution must have its accounting/financial information, including its budget, current and organized to begin package implementation. This is the most frequent problem we have encountered.

✓ **Accounting Skills**

Accounting/financial management personnel must possess formal accounting training or equivalent work experience.

✓ **Computer Literacy**

Accounting/financial management personnel must be familiar with micro-computer based systems; they will need to operate both the package's internal word processing capability and an external spread sheet (such as Lotus).

Computer support personnel must possess basic knowledge of DOS.

✓ **Operating Environment**

The organization must provide a clean, dust-free, preferably air conditioned, operating area.

*...Evaluation of
Software
Packages for a
P.C.-Based
Accounting
System*

✓ Accessibility

The physical location of the system must be sufficiently accessible to hardware/software support personnel to allow problems to be resolved within an acceptable time frame.

✓ Accounting Transaction Volume

The institutions should process at least twenty accounting transactions per month.

✓ Project Documentation

The institution should have the donor reporting requirements established through project agreement documents and amendments (PILs, in the case of USAID).

*Implementation
Checklist*

PROJECT START-UP

✓ Establish Required Level of Accounting Skills

Inventory the accounting/financial management skills of the organization; formal accounting training or its equivalent in work experience is required. Extensive additional implementation assistance will be required from professionals if the entity's staff does not have basic accounting skills. Users may need additional assistance if they are converting from a simple cash receipts disbursement ledgers, if they have not journalized transactions (debits/credits), and if they have relied on others to prepare the entity's financial statements.

✓ Establish Required Level of Computer Literacy

Inventory the basic computer skills of the personnel who will use the system; if improvement is needed, arrange for training to be carried out throughout the remainder of the project.

- Accounting/financial management personnel will need to operate both the package's internal word processing capability and an external spread sheet (such as Lotus); some familiarity with DOS would be beneficial.
- Computer support personnel must possess sufficient basic knowledge computers, computer-based systems and DOS for basic system maintenance, such as backup and recovery; file management; assistance in formatting reports; etc. The organization's computer support personnel, should participate in the system implementation and training.

✓ Determine Reporting Requirements

The complexity of reporting requirements will necessarily vary according to the size/complexity of the organization. This determination should be established in coordination with the following task.

✓ Develop/Customize Chart of Accounts (COA)

Professional assistance will be required by most organizations; our COA demonstrates a manner of integrating regular General Ledger reporting with project reporting and a traditional account classification scheme. No COA can fit all organizations and most will require customizing.

✓ Establish Interface Requirements

Examine existing/proposed databases or other information sources of project activities and accomplishments. Establish interfaces to provide reports which relate costs to activities. An existing statistical database is a requirement for doing cost/activity reporting.

✓ Acquire Hardware

The central processor (CPU) for smaller entities may be any DOS-based microcomputer with 640K of memory and a hard disk of at least 20MB. Larger, more complex organizations demand faster processors (386 or higher), additional memory, and greater storage capacity, particularly if the package is to be operated on a network. In the case of a network, the associated hardware (cards, cabling, terminals, etc.) must also be acquired.

The package will operate with any wide carriage or other printer that produces up to 160 characters/line. A laser printer, to enhance the presentation of financial statements and graphical reports, is desirable in all cases; additional printers may be required in larger institutions.

Proper operation of the hardware will require a voltage regulator adequate to the system acquired and local conditions. An uninterruptible power source (UPS) is advisable in countries subject to frequent and/or lengthy power outages.

✓ Acquire Software

The minimum requirements are the selected modules of the TecApro package and a spreadsheet (Lotus 123 or other). Networking and other software may be required for the larger entities.