



CGAP Information Systems Consumer Report

Full Report

Product Evaluated

Loan Performer

Version 5.30, Windows

Software Provider

Crystal Clear Software Ltd.

March 2001

Disclaimer – Neither CGAP, nor the participating vendor, nor the microfinance institution visited for this evaluation will be liable for any damages, or losses suffered due to decisions based on the information provided in this report.

About the Consumer Reports

The CGAP Consumer Reports were developed to assist managers of microfinance institutions in the process of selecting software to track their core information needs, such as loan portfolio and accounting information. The reports are not intended to replace the due diligence process required by a MFI to identify appropriate Information System (IS) software. Rather, the individual reports, combined with the comparison charts, are intended to propel a microfinance organization further along in their selection process without having to expend a great deal of staff time to conduct an initial scan of available options. For more information on the software selection process, see the *Software Selection Guidelines*.

The Application Selection Criteria

To be considered for review by the CGAP IS Service, a software application for the microfinance market must meet the following requirements:

1. Commercially available off-the shelf application.
2. Microfinance client-base (multiple clients).
3. Installed & supported in more than one country (for the initial round of reviews).
4. Supports individual & group lending methodologies (or has the potential).
5. User interface available in more than one language.
6. Continued commercial market potential, defined as
 - Sustainable technology (i.e. platform, programming language & database)
 - Investment in on-going product research and development
 - Defined product development cycle
 - Defined process for beta testing and controlling new releases

Once selected by CGAP Consumer Reports Service for review, the software vendor must agree to participate in the evaluation process.

The Review Process

The evaluation process followed three main steps—a request for information from the software vendor, a review of a software demonstration, and a site visit of a microfinance institution using the software product under review.

A standard RFI (request for information) is sent to the software vendor to gather data about the product under review and the company. This information is first verified through a software demonstration, privately if the software vendor can provide a demo disk/file, otherwise, through a live demonstration. Secondly, the software is evaluated within a microfinance institution using it. Following the site visit, if necessary, information is clarified with the software vendor. Once the report is written, a Technical Review Committee, comprised of individuals with extensive experience in microfinance, systems development, and software evaluation review the report for consistency, fairness, and transparency. At least one member of the committee is a CGAP employee, but the other members in the committee work in the public and private sector, both in the microfinance and technology industry.

The Report Rating Scale

Each software application is rated in six separate areas, but a composite rating has purposefully not been given to the product because priorities for different functionality vary greatly institution to institution. It is also important to note that the software applications are not being compared against one another, for some are meant to serve large regulated banks, or credit unions, and others are meant to serve the needs of medium to small microfinance organizations. Rather, the applications are being compared to

the generally accepted industry standards, either in microfinance, software or accounting. The evaluation criteria are based on the “*Microfinance Best Practice MIS for MFI Evaluation Framework*”, developed by Andrew Mainhart. The six aspects of the software being evaluated include Functionality And Scalability, Usability, Reporting, Financial Standards and Compliance, System Administration and Technical Support, and Technical Specifications. A microfinance organization should look at each individual rating given by CGAP in relationship to the priority they have assigned that particular component of software or services provided.



The rating scale used for the evaluation is a five-point scale with a crying face being the poorest and a cheering face being the best rating. In between, from poorest to best are a crooked smile, a straight smile, and a happy smile. The more pleasing the face, the better the product is in that area. A lowest rating would indicate that the product is either, missing basic standard features, or the features do not function properly. A highest rating would indicate that the product has all the standard features, plus additional features for the given category rated, and the features provided function properly. A middle rating would indicate that a product has close to or all the standard features, but no additional features, and/or the features may not function properly. The rating criteria holds true for the categories that include services provided by the software vendor.

Given the limitation of the evaluation design, available resources for the project, the desire to review the most currently available version of the software, and the need to keep the information as timely as possible, it is not possible to evaluate all the features of each software application. Again the core purpose of the report is to provide MFIs with a strong position from which to begin a due diligence process. A core set of features is reviewed for all applications, and if a specific feature is not verifiable, it is noted. Any extra information obtained through the evaluation process is included.

Product Summary

Product: Loan Performer 5.30	Historical Products DOS (1 version), Windows (4 versions)
Work Station Operating System Windows 95/98/2000	Server Operating System Windows NT, Novell Netware
Networks Supported Windows NT, Peer to Peer, Novell Netware	Workstation Hardware Requirements 16 MB RAM Pentium computer
Software Language(s) Visual Foxpro 5.0A	User Interface Language(s) English (help menu also available in French)
Database FoxPro™ database	Base Software Price (US \$) \$400 Single User installation license \$800 Five User installation license \$1,200 Unlimited User installation license

CGAP Consumer Report Rating



Functionality and Scalability



Usability



Reporting



Financial Standards and Compliance



System Administration & Technical Support



Technical Specifications

Suited best for small to medium microfinance institutions or lending programs operating in a decentralized manner with <15,000 clients per branch.

Crystal Clear Software's sole product is Loan Performer. Loan Performer has its roots at the "Uganda Women's Finance Trust" (UWFT) where it was initially developed as the "Trust Information System" (TIS). The TIS started as a DOS based client data entry program towards the end of 1995. Later on the client module was re-written for Windows95 and new modules were eventually added. The Kampala branch of UWFT is using the database that is now four years old with over 150,000 savings transactions recorded and almost 6,000 loans. Development of the software product at UWFT took about three years, from 1995 to 1998. At that time, Crystal Clear Software Ltd. took over the future support and development of the product. The product name was changed to "Loan Performer" and modifications were made to make it attractive to other Microfinance Institutions. Towards the end of July 1998, Loan Performer became available as a commercial product. The first commercial release was version 4.0. Since that time many other Microfinance Institutions in Uganda and the surrounding countries in Southern Africa, as well as in the NIS region, Eastern Europe, and the Caribbean have started using Loan Performer (all in English).



Functionality and Scalability

The rating of the Loan Performer product for functional and scalable capacity is based on three areas: 1) functional completeness, appropriateness, and integration; 2) expandability with institutional growth, both in volume and organizational structure; and 3) flexibility to track financial products according to business requirements.

1) Functional Completeness, Appropriateness, and Integration

Loan Performer (LPF) is an integrated package that covers a significant portion of the core features needed in a MIS: an integrated accounting package, individual and group lending, a basic savings account, and blocked savings. Loan Performer has five sub-programs: the Client Registration Module, the Shares Module, Savings Module, the Loan Tracking Module and the Accounting Module. These five are integrated into one application. Each individual MFI branch should have a separate installation of Loan Performer with a separate license if the institution needs to track data at the branch (e.g. office, district, regional) level. In this case, the MFI will need to also purchase an additional license for a special “corporate version” of LPF to be used in the central office, which allows consolidation of branch level data for effective analysis of performance at the broader institutional level. It is also possible to buy a multi-branch license for centralized administration.

Accounting

The accounting module tracks on a cash basis. If an MFI wants to track interest accrued (but not yet received from borrowers) or interest expense owed (but not yet paid) for a funding provider, these transactions must be calculated off-line then manually entered into the system. Some MFIs, in particular those that are moving toward standard banking industry practices, may find this to be a significant limitation.

The chart of accounts in LPF uses a structure defined by a six-digit number code for each account. Loan products, funding agencies and branches can be tracked by separate analytical codes that are not broken out in the chart of accounts; the user can assign these codes at entry of the transaction. LPF has names and pre-assigned codes for some common accounts used by MFIs that can be changed or redefined. Loan loss provisioning calculations can be user-defined, and there is a built-in account for loan write-offs. Other accounts can be added and assigned a number code by the MFI, but LPF’s basic account code scheme must be followed. This could be inconvenient for MFIs that need to use a different specific account code system (e.g. as mandated by regulatory authorities or funding institutions). However, LPF allows data to be exported and LPF account codes can be mapped to the chart of accounts of a separate branch or an external accounting package if the account codes can be defined to correlate.

The current version of LPF does not have functions that automatically adjust for inflation. This may be a major drawback to MFIs working in high inflation economies. For example, some MFIs find it necessary to periodically adjust loan sizes for inflation in order to remain on course to achieving financial sustainability. Adjustments could be made manually through journal entries, but it would require diligence on the part of the user to do this periodically; some MFIs may need to adjust often when inflation is excessive. Loan Performer also does not have pre-defined account codes or accounting functions that automatically adjust financial statements for the various in-kind subsidies that many MFIs receive from benefactors. Similarly LPF does not have specific, pre-defined overhead accounts for administrative operating costs that may be required to be tracked by donors or managers. However, accounts for subsidies and overhead can be manually added by the user and configured to make these adjustments.

Standard financial reports provided by the accounting module include Day Closure report, Balance Sheet, Trial Balance, Income and Expense Statements, Profit per Period, Breakdown per Account, and Budget reports. The accounting module also performs cost/profitability analysis by period, loan product, funding agency, and branch.

Loan Portfolio Management

LPF can be used to service and track individual lending, and FINCA-style Village Banking, groups of 20 to 40 women all on the same disbursement and payment schedule. It also supports solidarity and group lending where LPF tracks individuals at the group (e.g. Village Banking or Grameen center) or sub-group level. Individuals within solidarity-lending or Grameen-lending groups can also be tracked, including groups with staggered disbursements. Deposits are managed in a similar way. With the first loan for a member, the user indicates which cycle the borrower is in. With subsequent loans, LPF keeps track of this automatically.

For Grameen-style group loans, where five individual loans are grouped together, but the loan disbursement to the individual members is staggered over the period of weeks, LPF has an option that allows the user to disburse loans to individuals within groups. Group leaders are the last individual in the group to receive loans, conditional upon satisfactory credit discipline by other group members. MFIs with Grameen-style loan products can work with LPF by using an option that prevents loan disbursal to any member of a group where another member is in arrears. Using this option would limit the credit officer's ability to allow disbursal on a case-by-case basis, but allows the institution to exert greater control if desired. LPF can track who received loans, and loan amounts for Village Banking. LPF has an option that allows the MFI to track savings without including it in the balance sheet in the case where savings are not a liability and are not available for on-lending. For example, a group may handle an "internal" account of their own savings and retained interest payments. The MFI, for impact reasons, may wish to monitor this activity, even though the amounts do not flow through onto the MFI's balance sheet.

LPF can also manage individual lending and tracks information such as the description and value of a borrower's collateralized assets, as well as contact and asset data for up to two guarantors for each individual borrower. Fees and penalties can be added or waived on a case-by-case basis by a user with the proper authority. As with group lending, additional individual loan products can be defined for different interest rates, term, payment schedule, fees, savings requirements, etc. However, LPF does not have the capacity to track detailed information about client enterprises, such as cash flow analyses.

The portfolio module permits the addition and modification of user-defined loan products. These are defined in detail by loan amount, interest, interest calculation method, installment type, number of installments etc. Access authorization levels can be set to determine which of these items can be modified and who can modify them. Each loan product gets a code in the chart of accounts so that Profit and Loss statements can be generated for each individual product. However, with group loans, an MFI must choose a single lending model per installation of LPF that is to be used for all of its group loan products. For example, it is not possible to track a FINCA-style Village Banking loan with a single institutional loan as well as a Grameen-style center loans tracking at the subgroup and individual levels within the same installation of Loan Performer. In this case, an additional installation of LPF would have to be purchased. However, both lending models could be consolidated in the "corporate" version. Otherwise, LPF is flexible in its ability to manage multiple group loan products with different attributes. (took out a sentence here.)

Within the portfolio module, compulsory savings are linked to a loan as a percentage of the loan amount. The system prevents withdrawals beyond a user-defined limit. In addition, the portfolio module has voluntary savings, as well as loan guarantee savings (escrow account) that can be linked to loans. These can be defined as a percentage of the loan amount that should be available on guarantee savings account. The percentage can be user defined using three classes, e.g. higher for new clients than for repeat clients, or according to loan size.

Loan numbers are system generated. The portfolio module tracks cash and non-cash collateral, for individual lending. The portfolio module has capacity to track active portfolio by client type, credit officers, loan funds, branches, products, donor agencies, geographical area and business type. LPF can also track loan attributes for each loan, as conditions change over the life of the loan, and can separate reporting the various loan products based on changes in loan conditions.

Warning mechanisms for informing the user of potential portfolio related problems include the following:

- A user-defined message pops up whenever a flagged client is selected for entry of a transaction.
- Clients can be blocked from receiving loans.
- A message warns if a deposit account is dormant.
- A message warns if a client attempts a second withdrawal within a pre-defined period.
- Loan disbursements must be approved by a user with manager-level password security.
- Second loans can be prevented if previous loans are not paid-off.
- Loans can be prevented from approval if savings balance is not high enough.
- If linked with savings, a client cannot withdraw beyond a specified balance.
- LPF can print notification letters for a user-definable number of days before a payment due date or for number of days in arrears.

LPF calculates delinquency with a user-defined percentage of the portfolio that is represented by a specified number of days in arrears, using five ageing classes. This can be different for individual and group loans. This offers good flexibility for the variety of managerial, donor, and regulatory needs in delinquency calculations.

LPF also offers flexibility in assessment of late fees and penalties. Fines can be added manually or automatically generated by Loan Performer based on 1) the number of days late; 2) a fixed amount per day, with or without a grace period; or 3) a fixed amount every time that the module is run. Alternatively, fees and penalties can be based on a percentage of loans in arrears (principal only, principal plus interest, or on principal plus interest and accumulated penalties). LPF does not calculate the pay-off value of a loan; however principal and interest amounts can be re-scheduled over all remaining installments or for early payments. Early payments reduce the interest for the next installment(s) if the MFI is using a declining balance interest calculation. Late or partial payments have an effect, only if the user previously defined the corresponding penalties. LPF does not handle loan refinancing (adding funds to an existing loan); a loan has to be paid off and new loan has to be entered.

The portfolio assigns the following status categorizes for loans:

- | | | |
|------------------------|------------------------------|---------------|
| • Pending Approval | • Fully Repaid | • Rescheduled |
| • Pending Disbursement | • In Arrears and not Expired | • Refinanced |
| • On Time | • In Arrears and Expired | • Written Off |

LPF can calculate interest in different ways including a flat basis, declining balance, or discounted from the loan. The user can define the loan term, and interest can be rounded to any digit. A manager with proper user authority can overwrite interest calculated by LPF.

Loan commissions (as % of loan amount), development fees (as % of loan amount), administrative fees (as a fixed amount), as well as penalties for late payments can all be tracked by LPF and can be defined by loan product. The user can define whether these are to be paid on all loan applications or only for approved loans. Like the accounting module, the portfolio module also operates on a cash basis.

LPF can manage a variety of loan types, including term loans with constant payments, term loans with constant principal, irregular payments, single payment, and balloon payments. Users can overwrite any calculated installment with respect to date, principal, interest amount and fees/penalties. This feature can be enabled or switched off by a user with managerial authority. A user cannot modify payments once they are entered; payments must be deleted and re-entered. All deleted repayments are tracked.

LPF does not have a client rating or credit scoring capabilities, but tracks the number of completed loan cycles for each client for a simple credit history. LPF also lacks the complex actuarial capabilities necessary to manage any form of insurance without additional programming.

Deposit/Savings Management

Voluntary deposits, loan guarantee and compulsory deposits are seamlessly integrated with the portfolio. Although no other user defined savings products can be added, the user can modify these built-in deposit products. There is no easy way for LPF to track term deposits, however. In addition, with only a simple

passbook savings module built in, LPF cannot flag when term deposit savings would be available to the client. This could present a problem with cash flow projections for regulated MFIs that use a portion of their savings portfolio for on-lending. An MFI that has term deposits would need to track these outside LPF. If your clients save with an external bank, you can de-activate the automatic booking of savings transactions to your general ledger.

Savings interest can be calculated on current balances or on monthly minimum balances. Interest percentage and period can be set up to a maximum of twelve months; the user can define the interest days per year as well. The user can indicate whether interest should also be calculated on loan guarantee and/or compulsory balances and whether interest should continue to accrue on dormant accounts. LPF also tracks inactive, or dormant, savings accounts. The user can specify the number of days that an account has no transactions in order to be classified as dormant. The account is flagged and the user is given the option to charge a penalty when a transaction for a dormant account is entered. When the user decides to pay interest to clients, a report is run to update the accounts. The start of the new interest period is set and the interest on the savings accounts is posted in the general ledger on the last day of the period for which interest is calculated.

LPF can track historical data on deposit products even if savings attributes change over the life of the account. The deposit module can track voluntary savings separately from compulsory savings. The deposit section also offers the option for jointly held accounts for two people, and keeps contact information for savers' beneficiaries in case of death or incapacitation. However, LPF has no functionality for tax withholding, or advanced features such as debit/smart cards or electronic transfers; few unregulated MFIs (Crystal Clear Software's core market) have a need for this functionality.

Client Relationship (Information) Management

The client information features have been greatly improved in the latest versions of LPF, particularly with respect to search functions. LPF has fields for individual client information as well as group information; this information can be searched, and is easily accessed from portfolio or accounting screens. Also, LPF has a unique feature that can manage client shares in the institution. Many MFI cooperatives will find this to be invaluable. Client shares are tracked, and can be transferred, bought and sold. LPF does not have the capacity to track detailed client financial information, such as total assets, sources of income, total debt, and net worth, however. Following is a list of the predefined data fields.

Personal Information	Business Information	Historical Information	Group Information
Name Residential Address Education Level Literacy Languages Profession Income Children Dependents Partner Kin User-defined fields (several) Narrative comments Identification Number Gender Date of birth Civil Status Residential Phone Status Geographical Area Amount Committed to Saving on a periodic basis	Type of business Name of the business Business Address Business Phone Business Geographical Zone Need another signatory Remarks	Drop-out cause Member since Member until Remarks	Group Name Address Founding date Commencement date of each Loan cycle Number of active members each loan cycle Founding members Current members Current elected officers— Chairperson, Treasurer, and Secretary Current and historical loan officers of the group Three User-Defined Codes Narrative Comments

At the time of input the user can prevent duplicate client entries by clicking on a convenient search button on the new client information screen to initiate a system check. The system will check for similar spellings of the same name through a partial entry feature. This is particularly useful for MFIs whose clients do not have a strict spelling of their names. The client name can be set to be a unique field to prevent multiple entries of clients. LPF can search and report on any of these fields, including loan number, type of business, location, loan officer, and loan cycle. The current version of LPF also displays all transaction information for an individual client on a single screen that can be printed.

2) Expandability and Institutional Growth

The LPF software application is better equipped for expandability in terms of client numbers rather than institutional growth in terms of product diversity. The FoxPro database is generally believed to manage approximately 50,000 records without degradation in performance. However, a single client does not constitute a single reference or record given the volume of transactions per client. The number of clients, products and transactions, as well as the desired level of tracking detail will determine how quickly this limit is approached by an MFI. Crystal Clear Software estimates that the database grows by about 7 MB per year for every 1000 clients. Crystal Clear Software also estimates that each individual installation (branch) of LPF can handle up to a maximum of 15,000 active clients for whom transactions are entered regularly. Currently, the vendor has one client who is near this 15,000 client-threshold. The estimation of 15,000 active clients per branch installation is not based on the database volume limitations, but rather on the load of transactions that must be entered at the same time. Furthermore, as long as an institution does not consolidate the databases at the central office and archives data over time, theoretically the software could support unlimited number of branches. As LPF licenses are sold per installation (e.g. Branches for decentralized MFIs) an MFI with multiple branches wanting consolidation would need to an additional license for a consolidated, or “corporate” version that can merge data from each branch.

The corporate version uses the same FoxPro database engine as the individual branch versions. According to Crystal Clear Software, the corporate version of LPF does not allow data entry except through an import function, and contains a lower level of detail than the branch version. Therefore, the MFI must decide whether to enter branch data in a centralized installation for several branches, or whether to enter data at the branch level and consolidate at the corporate level. Moreover, the number of clients that can be managed in the corporate version is higher than for the individual branch version of LPF, although this could not be verified. In any case, LPF has no archiving functions, which may

eventually present database limitations to some medium sized and larger MFIs as client records accumulate.

LPF is limited in its ability to easily manage multiple financial products beyond those that are already included in the system. LPF does not support financial products such as demand deposits, revolving credit, lines of credit, mortgage loans, money transfers, insurance, or features specifically intended for tracking client impact. LPF also does not offer credit scoring or advanced features such as web-based management or remote access. It integrates with a Foxfire™ report generator as well as Excel™ for the production of user-generated reports. LPF also integrates with 3rd party accounting packages, to enhance or replace the simple accounting module that is included with the software.

3) Flexibility

Customer-centric or Account-centric

The LPF product is considered a loan-centric system as it is designed primarily around the “back-office” (managerial) needs such as tracking multiple loan products and reporting. LPF’s loan-centric system will provide some convenience for these users such as accounting staff, who work with aggregate numbers for analysis and reporting. However, “front-office” users (such as tellers or field officers) who work directly with an MFI’s clients will also find it convenient to use the LPF menu item that shows all the account information for a given client on a single screen, and which can be printed.

This software is best designed for use by small to medium microfinance institutions (mostly non-regulated NGOs). LPF can manage individual loans and group lending, such as solidarity lending, FINCA Village Banking or Grameen-model lending. Client activity can be tracked at the group and/or individual levels. Payment installments can be set for various frequencies, including daily, weekly, bi-weekly, half-monthly, monthly, bi-monthly, quarterly, four-monthly, half-yearly, and yearly.

While LPF is well designed for the needs of many small-to-medium NGO-based microfinance institutions, its relatively simple menu of accounting features, such as accrual accounting make it less useful for institutions with more complex needs, such as limited liability companies, foundations and large credit unions. Although, LPF’s shareholder tracking may be useful for some smaller credit unions and other shareholder MFIs.

Institutional Types	
Full-Service Banks	
Limited-Service Banks Cooperative	X
Savings & Credit Societies	X
Credit Unions	X
Microfinance Institutions	X
Limited Liability Companies	
Foundations Or Trusts	
Other	

Lending Methodologies	
Individual clients	X
Solidarity groups with individual loans	X
Solidarity groups with group loans	X
Village banks with individual loans	X
Village banks with group loans	X
Other	

Loan Product Types	
Commercial	X
Agriculture	
Construction/Home Improvement	X

Loan Interest Calculations	
Flat	X
Declining balance	X
Fixed rates	X
Discounted from the loan	X
Capitalized	
Floating/Variable rate	
Stepped rate	
Other (user defined)	

Savings and Deposit Account Types	
Passbook with passbook	X
Passbook without passbook	X
Term deposits (i.e. certificates of deposit)	
Group savings	X
Off-book group savings	X
Demand deposits	
Overdraft accounts	
Current accounts	
Other (user defined)	

Savings and Deposit Interest Calculations	
Day of deposit to day of withdrawal	X
Minimum daily balance	X
Minimum monthly balance	X
Minimum quarterly balance	
Average daily balance	
Average monthly balance	
Other (user defined)	

Payment Types	
Term loans with constant payments	X
Term loans with constant principal	X
Irregular payments (set by the user)	X
Single payment	X
Balloon payments	
Selection of initial and subsequent payment dates	X
Other (user defined)	

Payment Methods	
Cash	X
Cash in different currencies where appropriate	
Check	X
Smart card	
Money order	
Transfer from savings	X
Other (user defined)	

Payment Frequencies	
Daily	X
Weekly	X
Biweekly	X
Semi-monthly	X
Once every four weeks	
Monthly	X
Bimonthly	X
Quarterly (every 3 months)	X
Other (user defined)	

Payment Year Supported	
365 days	X
360 days (30 days/month)	X
336 days (4 weeks/month)	
50 weeks	
Other (user defined)	

Special Payment Modifications	
Permits the suspension of penalty fees	X
Permits deferment of loan payment	
Permits grace periods	X
Permits refinancing (recalculation of payment amounts) of loan	
Permits rescheduling	X

Additional Types of Payments	
Commissions and fees	X
Penalty fees for late payments	X
Credit Insurance	
Group insurance fees	
Other (user defined)	

Multiple Branch or Regional Offices

The LPF software is designed for an organization with a branch structure that tracks information in a decentralized (non-networked) manner with the branch office responsible for its own MIS. However, LPF can be setup to operate in a centralized environment as well as a decentralized environment. It is important to note that the MFI needs to purchase a license for *each* installation of LPF and have backup media such as a Zip disk or CD-RW disk. Data can then be transported to the central office and consolidated using an installation of the corporate version database as frequently as the user needs. This would not have all of the detail of the individual branch versions, such as detailed client information, and it would not be possible to enter additional information directly into the corporate version as it cannot be exported back to the individual branch installations. Data can be exported into Excel and manipulated to have a more limited level of detail desired for reporting. In addition, the current version of LPF has a

nice feature that can import savings and loan transactions from an Excel spreadsheet used for tracking these at branch level to a central LPF database.

Multiple Languages

At this time, LPF is available only in English, although the help menu file has been translated into French. In this case Francophone users comfortable at a basic level of English could use LPF. Crystal Clear Software has a number of clients outside the East Africa region, and other languages are likely to be available according to customer demand. Customized language translation would likely add expense but would not be technically difficult.

Multiple Currency

LPF does not offer multi-currency capability.

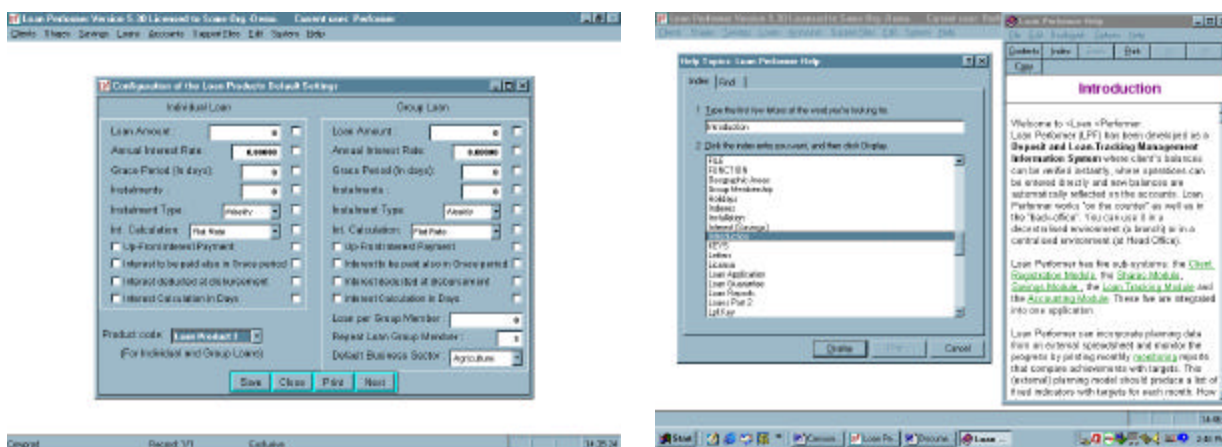
Management Considerations

- ◆ **Accounting Features** – LPF's accounting module performs basic functions including general ledger, and non-portfolio income and expenses. However, it does not automatically track overhead, provide asset and liability management facilities, or manage payroll. A user may wish to augment LPF's functionality in these areas using Excel and/or an inexpensive third party accounting package.
- ◆ **Accrual, Inflation, and Subsidiaries** – LPF's built-in chart of accounts does not already include pre-defined accounts for these. MFIs currently accounting on an accrual basis, or wishing to move toward standard banking practices may find this to be a serious limitation. The software will not automatically adjust for inflation, so it must be done manually through journal entries as often as is prudent. MFIs receiving donor subsidies should have accounts for these adjustments added as part of the configuration and installation process.
- ◆ **Loan Products** – LPF can only support one group lending model per installation, therefore an MFI may need to purchase additional installations if it operates with multiple group lending methodologies.
- ◆ **Savings Products** – LPF cannot manage term deposits at present. MFIs that offer these products will need to track them in a separate application.
- ◆ **Data Entry** – Transactions are posted directly to the accounting side of the software, providing no opportunity to catch simple data entry errors prior to posting. Therefore, management must exercise due diligence and regularly review transactions for accuracy.
- ◆ **Compatibility with other Applications** – As LPF can be exported into other 3^d party accounting packages, an MFI may be able to take advantage of LPF's portfolio features without the necessity of changing accounting software. LPF's ability to export reports to, and import limited portfolio information from Excel, may make the process of data conversion one that can be phased in gradually. The additional purchase of the Foxfire report writing application allows an MFI to easily respond to various stakeholders' needs for different reporting formats.



Usability

The usability of the Loan Performer product is based on three categories, 1) the friendliness of the user interface determined by the navigational architecture of the software along with consistencies across screens and menus; 2) the ease of use with which needed tasks, such as end-of-period processing, can be performed; and 3) the quality and availability of user training, support and resources, both online and printed.



1) User Interface & User-Friendliness

The clients visited for this review all liked the LPF user interface. This is an area where LPF's approach to keep things simple has really paid off. The software's interface is very straightforward to navigate. The same simple Microsoft windows-style menu is across the top of every screen with simple text boxes to guide the user. The figures above both show LPF's drop-down menu as a bar across the top of each screen, with sub-menus for some items. Shown at left is a window for setting up a new loan product. Moving to another menu and clicking an item closes the window where the user is working to open the new window, making it easy to navigate through the system with minimal backtracking and multiple clicks. LPF has good "drill-down" capabilities, which enables a user to click on certain fields and immediately receiving another window with more detail regarding the selected field. Consequently, it is easy to get additional information from the system in an intuitive way by clicking on specific menu items. Front-office users such as data entry people who are familiar with the windows-style environment should be able to use LPF with minimal training. The excellent help menu (sample shown on the right) is comprehensive, written in non-technical language, and is easy to follow. Product setup, adding clients, and other routine activities are quite easy, by selecting from menu items or filling in text boxes. Reports are similarly easy to generate in .pdf format (readable using Adobe freeware) with a few clicks setting the parameters. Reports can also be generated through exporting the data to a PDF, Excel, or Dbase file format.

2) End-of-Period Processing

LPF offers no batch processing, therefore there is no end-of-period processing functionality built into the software. Transactions are posted immediately to the general ledger as the transaction is completed. If LPF is used in tandem with an external accounting package, the user must perform an end-of-day closure and export the day's transaction information as a batch into the 3rd party package.

The end-of-day closing process generates two reports. One report is a detailed listing of all the transactions (automated by the software as well as those entered manually by the users) since the

previous closing process was run. The second report is a summary of each account in the chart of accounts. Each of these reports has a corresponding “day-closure” number. A printout can be produced for each day’s transactions. If the accounts summary report does not reconcile with the detailed transaction report, the end-of-day processing will not close. In this case, the transactions since the last closing will not be reflected in the audit trail. Once corrected, an incremental closure processing number will be recorded and the same transactions will not be included in the following day’s printout.

3) User Training and Support

Not uncommon for software development companies, Crystal Clear Software’s area of greatest weakness is in its user training and user support. Crystal Clear Software has not developed a formal training curriculum specifically designed for inexperienced users. And, there are no available training materials or users’ guides, other than a printed version of the online help menu, which however, as a help menu is quite good. According to Crystal Clear Software, training for most of their customers has typically taken two days for data entry level users, depending on their previous experience with a computer and the Windows environment, and three days for system administrators. The training quality varies greatly, due to the varying levels of training and communication skills of the staff of Crystal Clear Software. The MFI reviewed for this survey reported having difficulties with LPF that upon further investigation turned out to be misunderstandings about the software by inexperienced computer users. Simple solutions were available that should not have required intervention on the part of Crystal Clear Software, had the users been aware of them. If the MFI had been more proactive in making decisions as to the amount of training time necessary, and Crystal Clear Software more aware of the situation, this could have been avoided. The high quality of Loan Performer’s help menu somewhat mitigates the problems with training, however, as it is comprehensive enough for an experienced computer user to self-learn the software.

To Crystal Clear Software’s credit, they have established a very active on-line user’s group through their web site, using an open bulletin board. This is available for viewing by the public. Five to fifteen messages per month are typically shared amongst the user community. Crystal Clear Software is quick to respond to problems after they are brought to their attention through the user’s site. Anyone interested in purchasing the software should use this resource to learn more about the software and the company from other users.

Management Considerations

- ◆ **User Training** – LPF is a relatively simple software application to learn for someone already familiar with using a computer, the windows style environment, and database or spreadsheets. However, for many smaller MFIs with staff that has probably had minimal or no previous computer experience, there will be a slightly steeper learning curve. Implementation may take longer, but it is a good opportunity to build professional capacity across the organization. It is always a good idea for a MFI implementing new software to dedicate an in-house training person to work closely with the vendor to develop a detailed training plan that is appropriate for the specific needs of the MFI.
- ◆ **On-line Help** – Issues with inadequate training are somewhat mitigated by LPF’s good on-line help menu. Users who are comfortable with computers and accounting should be able to learn to use the software application with little training through the help menu.



Reporting

The rating of the Loan Performer product's reporting capabilities is based on three areas: 1) the extent to which built-in reports can be modified or new reports created, and the data exported, 2) the accuracy of the information presented, and 3) the visual layout and effectiveness of the reports.

Reports, Report Generation and Exporting

Loan Performer provides a nice variety of very attractive standard reports, comparable or better than most other software applications reviewed. This reflects the developer's background in microfinance. LPF comes packaged with a comprehensive list of built-in reports as found in the following tables.

Management Reports	
Key Statistical Summaries	X
Cash-Flow Projections	X
Branch Office & Loan Officer Performance	X
Financial Reports	
Trial Balance	X
Daily Sub-Ledger	X
Daily Transaction	X
Monthly, Quarterly, & Annual Financial Statements	X
Ratios and Trends	X
Accounts Inflation & Subsidy Adjustments	

Operational Reports	
Daily Listings	X
Daily Delinquency	X
Portfolio Quality	X
Customer Reports	
Statements	X
Balances	X
Queries	X
EOY Interest	X
System Reports	
Calculations of Ratios and Indicators	X
Audit Trail	X

LPF includes over one hundred reports including those listed here. All existing reports have flexible variables with which to generate the report (period, customer type, loan type, branch etc). Other reports can be user generated in other applications by exporting the data. The data can be exported using the following file types: PDF (Adobe), DBF (FoxPro), Excel, or text files. The user simply chooses the desired format from a drop-down menu provided on the print screen/window. Real customization of the report content and layout, using the advanced query utilities of the database, is only possible with Foxfire report generator. The MFI visited for this report was not using Foxfire; and it was not determined how user-friendly this report-writer is. The report writer can be acquired for an additional fee to the software license. In addition, as the MFI visited for this report had not undergone an internal or external audit since using Loan Performer software, the accuracy of the reports could not be verified.

Management Considerations

- ◆ **Reports** – LPF has over one hundred built-in reports that are quite easy to produce in several formats. The software provides a variety of report parameters from which to choose. Still, modifications may be needed in some cases. An MFI can purchase the additional Foxfire report writer for this purpose or easily export the information to another application.
- ◆ **Report Accuracy** - While there are no known problems with the accuracy of LPF's reports, these have never been verified in an exhaustive fashion.



Financial Standards and Compliance

The rating of the Loan Performer product for financial standards and compliance is based on two areas: 1) generation of reports that follow Generally Accepted Accounting Principles (GAAP) or International Accounting Standards (IAS); 2) the ability of the software to provide accurate information for regulatory requirements of local, regional or national supervisory organizations.

1) Accounting Standards and Soundness

No governmental agency or third party has reviewed or certified this product, but the vendor certifies that the accounting module complies with international accounting standards. The accounting module is a basic general ledger that accounts on a cash basis. The accounting module has been successfully installed in forty institutions in East Africa as well as the NIS region, but does not handle the French accounting format in this version. Nor is the chart of accounts flexible enough to allow for a complete redefinition of the chart of account codes. Changes in the chart of accounts are only possible within the limits of the American chart of accounts where accounts starting with 1 for Assets, 2 for Liabilities, 3 for Capital, 4 for Revenue and 5 for Expenses. According to the vendor, follow-on releases, since this evaluation was initiated, include a feature to enable the printing of financial reports against mapped accounts so that an MFI can maintain their current chart of accounts. The standard reports generated by the software include the information outlined in CGAP's suggested MIS reports. The MFI visited for this review had no comments regarding compliance to accounting standards. As of the time of the site visit, calculations by the software appeared to be accurate.

2) Government and Supervisory Adherence

LPF has never been modified to fit local legal requirements for accounting or reporting. However, ratios can be user defined to meet local government required reporting. Moreover, given its flexibility LPF should be able to be configured to meet the compliance needs of a non-regulated MFI. The MFIs visited were not currently regulated under any government or other authority, so they had no comments on this topic. Crystal Clear Software does not direct any resources into research and new product development to assist MFIs in meeting new legislative compliance requirements, insurance product requirements or consumer lending product requirements. Also, the software does not currently have the capacity to integrate with any national payment system.

Management Considerations

- ◆ **Accounting** – The accounting module does not handle accrual accounting, nor does it automatically track overhead, provide asset and liability management facilities, or manage payroll. If a MFI needs to report to a government authority or requires additional accounting features such as these, then it is recommended that the MFI use a third party accounting package.
- ◆ **Auditors** – Since LPF reports have not been previously audited, a MFI interested in purchasing the software should exercise due diligence in looking at the package themselves with detailed knowledge of their own specific accounting needs and asking detailed questions of the vendor as part of the due diligence process. Additionally, it is generally advised that an MFI have their external auditors review the application, and the reports generated by it, for approval prior to purchasing the software.



System Administration and Technical Support

The rating of the Loan Performer product for system administration and technical support is based on six categories: 1) security, 2) fault tolerance and robustness, 3) technical support and maintenance, 4) installation and conversion, 5) version control and upgrade strategies, 6) backup and recovery. Heavy emphasis placed on technical support services in rating this area.

1) Security

LPF's security features are sufficiently adequate for most small MFIs, as long as the additional encryption tool is purchased. The software application supports seven different user classifications: supervisor, branch manager, savings officer, cashier, credit officer, accountant and guest user. Each designated user is assigned to one of these authorization groups. Menu items can be activated or de-activated for each user group (except supervisor and guest user) in the system configuration. Passwords are encrypted and can be changed by users at the highest security levels. In addition, the whole database can be encrypted with the purchase of an additional (though inexpensive) database encryption tool, which would make it impossible to access LPF's database files without first entering Loan Performer using a password. None of the MFIs visited for this report were using the encryption tool, so this could not be verified, however. The encryption tool would not prevent deletion of the database accessed through Windows Explorer. However, if LPF is used in a networked setting, there are features of various server operating systems (e.g. Windows NT Server) that can prevent this.

LPF permits the user to print an audit trail only if the accounting part of the program has been activated. A report with all the transactions that a single user posted during a specified period can be produced, as well as, a report with all transactions grouped by person and date. This can be useful in case of irregularities where transactions need to be corrected as/once the data entry personnel responsible has been identified. A list of transactions of deleted items is included as well as part of the standard reports in the software.

2) Fault Tolerance and Robustness

In the case of a system crash or other errors, LPF provides a message to the user, logs the error in a file, and automatically closes the program. LPF also issues a warning to a user when a transaction has not been fully entered (although it is not necessary to complete the end-of-day processing, however). In addition, at each startup of the application the LPF database is validated to check for data corruptions. If errors are found, the software provides a message asking the user whether or not to repair the database. If the okay button is selected, LPF attempts a recovery of the data. If the recovery fails, the system informs the user to restore the previous day's backup file.

3) Technical Support and Maintenance

Other than a print-out version of the help menu, there is no user's guide to LPF. However, upon request, a programmer's guide and technical manuals are available from Crystal Clear Software. The institutions surveyed reported a wide range in quality for support staff who have had difficulty with technical "translations" to non-technical users. In reality, Crystal Clear Software is a small company that in many ways resembles a one-person shop based on the founder and CEO. Since the CEO is sometimes away from the office for long periods of time, the MFI noted occasional issues that could not be resolved by the staff, requiring them to wait until the CEO returned. Still, the CEO has expressed a strong long-term commitment to development of LPF, (and indeed developed LPF out of a strong sense of long-term service to the MFI community) and Crystal Clear Software will grow and develop its staff accordingly.

Given the small size of Crystal Clear Software, their capacity for technical support services is understandably limited. The product is currently installed in nearly eighty locations, most in Africa and the NIS region. It is clear that given their staff resources, and the price point that they target in the market, technical support per client is minimal, particularly outside the East Africa region. However, given LPFs

simplicity (recovering from faults is as simple as doing a backup recovery) and its large potential value to service MFIs on a tight budget, this limitation in support is acceptable. Crystal Clear Software often stresses support for only the latest version of LPF (with all the new fixes); and encourages their customers to upgrade often. Support is often as simple as updating to the next version (easy to do) where there is a fault

Unlimited E-mail, phone and fax support is included with the annual licensing fee. Additional on-site support is also available at extra cost. Crystal Clear Software currently has five staff members who handle everything from programming, sales, conversion, and support. All of the personnel speak English and are based in Kampala, Uganda. Support may also be available in French, if needed. When software bugs are discovered, the fixes are usually made available to all clients as part of the annual fee. Additional support is provided through a web-based Users forum where all bug and error fixes are posted for the public. This forum is not restricted to customers and would be a good way for a potential client to become familiar with the package before purchasing it.

LPF does not currently make source code available to customers. However, Crystal Clear Software can make modifications upon request through the Users group, which will then becomes part of the next release of the software. Prior to the release of the product to the customer, all changes, patches and modifications included are tested by three different technicians.

4) Installation and Conversion

The data conversions that Crystal Clear Software has implemented for customers thus far have taken from one to four weeks, depending on historical data transferred to the new software. In some cases, the data is taken to Crystal Clear offices to be worked on there and returned via zip disk or CD. Examples of technical problems encountered during these conversions include:

1. *The user saved each (group) loan in a different Excel file.*
2. *Names were in local languages and in different character sets.*
3. *User had data in different databases without keeping same index numbers for clients.*

Conversions implemented by the client MFIs themselves have been more problematic, but more often as a result of data not being “clean” or reconciled in the old system before the conversion takes place. The majority of Crystal Clear Software’s customers have undertaken the task upon themselves, usually involving the manual entry of historic data (as far back as the MFI wants to record in LPF). Skills necessary for the conversion of data from another financial package include knowledge of the data structure for the old software, knowledge of file-conversion techniques, knowledge of SQL commands, knowledge of Loan Performer data structure and how Loan Performer works.

5) Version Control and Upgrade Strategy

The version of Loan Performer reviewed for this report is 5.30. New versions appear very frequently, sometimes every few weeks. While Crystal Clear Software should get credit for its diligence in making fixes and improvements that result from customer feedback, the frequent releases and upgrades that result can be confusing. It seems that nearly every minor modification results in a new release. Crystal Clear Software should adopt a more formalized approach to its upgrade strategy, and communicate this plan to its customer base.

Only the latest update needs to be added in order to capture all the improvements from previous updates. The database and program have different version numbers. The latest database update must be installed for the newest program version to run properly. All updates are included at no additional charge with the annual licensing fees. Correction of bugs and errors is well communicated through the User’s group on the Internet. This is a relatively active group for so few clients, and it appears to be quite useful for LPF customers.

6) Backup and Recovery Strategies

LPF can be set to make back-ups compulsory as the user exits the program. The backup system is simple, and allows for full backups only, for the entire program. Backups can be made to an external medium such as CD disk (preferable) or Zip disk, or to a directory on the hard drive. The database size depends on the amount of data contained. Each user is tracked by day/time of entry and exit and this information can be presented in a report.

LPF has no archival features. Therefore, It should be emphasized that an MFI using LPF or any other MIS package should be diligent about keeping a regular backup schedule. In the case of LPF, this is simple enough that back-ups should be run on a daily basis. Because the entire database is backed up, with the built in program, any corruption of the data or program can be easily recovered from without technical assistance from Crystal Clear Software, by simply reverting to the last backup available for recovery. Backups of the entire system other than the database are possible with outside software usually included with backup drives, but is not necessary if the license key and installation files are kept on disk. A complete reinstallation of LPF software is not difficult and takes only a few minutes in the worst-case scenario where Loan Performer files other than the database become corrupted or somehow lost. The backed-up database files can then be moved to the proper directory for a complete restoration of the system.

Management Considerations

- ◆ **Security** – LPF has pretty good security features. However, a MFIs using LPF should strongly consider using the optional database encryption tool, especially those who do not perform backups on a regular basis. Without this tool, the database is at significant risk of being copied, moved, or deleted through the Windows Explorer application. Also, there is no audit trail if an MFI has not activated the accounting module. Therefore, the module should be activated even if it is not used as the MFI's primary accounting tool.
- ◆ **Backup** – Crashes and other errors can be an inconvenience, rather than a catastrophe if LPF is backed up properly on a daily basis. A MFI is advised the use of optical media, such as a CD-R or CD-RW drive, for backing up the data because it holds more data, is reliable, relatively tolerant to heat and dust, and cost effective. Re-useable CD-RW disks allow a generational backup; a different disk can be made for every day of the week.
- ◆ **Version Control** – Crystal Clear Software is quick to make needed software fixes soon after the problems are brought to the attention of the vendor. Patches can be downloaded through the user's site. Crystal Clear also seems to create a new release with every new or minor modification that licensed users can obtain through the Internet. Frequent new versions could potentially cause confusion for an MFI with multiple installations (including use of the consolidated "corporate" version), as they would need to be concurrently updated. Scheduled or timed releases (once a quarter or every six months) with new core functionality could mitigate this problem and is a more standard method of software development. Where the MFI has no internet access, or with a slow connection speed, arrangements can be made with Crystal Clear Software to ship the latest version via zip disk or CD.
- ◆ **Technical Support** – Limited technical support is provided by Crystal Clear Software due to its small staff size, especially outside East Africa. However, the stability of the product and active user site make it conceivable for a MFI with a moderate skill-level internal IT support to use the software without much difficulty.



Technical Specifications

The rating of the technical specifications for Loan Performer is based on three categories: 1) technology and architecture, which includes performance, 2) research and development, 3) date and number handling.

1) Technology and Architecture

The LPF source code was inspected by an outside computer programmer, and reported to be well written, minimizing software bugs and making future modifications easier. LPF is designed to run either over a Local Area Network (LAN) or in stand-alone environment. The data files for each installation can be separated for transporting or placed in an updated version of LPF. The license key files need to be reinstalled in this case also.

Each branch can have an individual installation, with a centralized installation for consolidation of data. The maximum number of branches is 676. To date, none of Crystal Clear Software's clients have grown large enough to test these limitations, so they could not be verified. These limitations are set by the database, not the software application itself. Other limitation is the size of the hard drive and data transfer of the file.

The hardware requirements are minimal, a 16 MB RAM Pentium computer with Windows 95 or 98, capable of 800x600 screen resolution and an A4 printer will do for an MFI with a relatively small number of records. This is a nice bonus for an MFI on a shoestring technology budget. Storage capacity requirements vary according to the amount of data (e.g. number of clients entered in the system). LPF can also run in a network environment using Microsoft NT or Novell Netware. The FoxPro database is included with the software application.

2) Research and Development

Crystal Clear Software continues to improve LPF based on feedback and features requested from present and potential customers. Besides the development and support of Loan Performer, Crystal Clear Software also develops tailor-made database systems on request and provides (international) consulting services in the area of management information systems development, especially software products built around the LPF product.

3) Number and Date Handling

LPF is Y2K (Year 2000) compliant in relation to the Licensed Software, meaning that its performance and functionality is not affected by dates before, during and after the Year 2000. In particular,

- no value for current date will cause any interruption in operation;
- date-based functionality will behave consistently for dates prior to, during and after Year 2000;
- in all interfaces and data storage, the century in any date must be specified explicitly; and
- Year 2000 must be recognized as a leap year.

LPF manages digits as follows:

- Maximum deposit amount: 100 Million
- Maximum loan amount: 1 billion
- Maximum interest amount per installment: 100 million
- Maximum supported general ledger reporting: 100 billion

Management Considerations

- ◆ **Database** – LPF runs with a FoxPro database, which is recognised as a common and quality database program in the industry. However due to the entrance in the market of a number of other databases with expanded size and functionality, FoxPro is becoming less common, particularly in the web based technology environment. Consequently, it may be more difficult five years from now to find people willing to support the product. As long as Crystal Clear Software continues to upgrade its product in alignment with emerging technology there should not be a problem.
- ◆ **Hardware Requirements** – LPF runs on an inexpensive hardware platform, making it a preferred choice for institutions that have older or limited hardware currently, and lack the resources to upgrade their hardware.

Company Profile

<p>Crystal Clear Software Ltd. www.loanperformer.com</p> <p>email contact: sales@loanperformer.com ccs@infocom.co.ug (support line)</p>	<p>PO Box 7463 Kampala, Uganda Africa</p> <p>Tel. +256 41 231739 Fax +256 41 233644</p>
<p>Company Type Privately held company.</p> <p>Core Business Software Development</p> <p>Time in Business 3 years</p> <p>Client Profile Small & medium sized microfinance organizations</p> <p>Client Base 40 +</p> <p>Active Number of Clients 40 organizations, using most recent versions of LPF</p> <p>Location of Clients 80 different sites in East Africa, Europe the NIS region, and the Caribbean.</p>	<p>Location of Technical Assistance (TA) Offices Uganda, with other representatives in Azerbaijan, South Africa and Zimbabwe.</p> <p>Number of Employees/Number of TA Staff 6</p> <p>Medium of TA available Telephone, Email and Fax, with Online Users group included, site visits at additional cost.</p> <p>Training Provided by Crystal Clear Software's technicians or their representatives.</p> <p>TA Staff Experience Software engineers have 4-5 years of programming experience in development of LPF.</p> <p>Number of Software Implementations/Month Currently approximately 3 per month</p> <p>Users Group Currently active on-line bulletin board, see website.</p> <p>Demo A demonstration version with full features (data is limited to 20 clients) can be downloaded from the Internet without charge at http://www.loanperformer.com, or by regular mail for a US\$25 and DHL/Express Mail for US\$40.</p>

Summary of Costs

The base price in US dollars for the software license is:

\$400.00 Single User installation license

\$800.00 Five User installation license

\$1200.00 Unlimited User installation license

10-30% rebate per additional branch license, depending on the number of branches.

Additional Software Tools

Additional tools such as FoxFire reporting, and the encryption tool can be added to the package for a minimal extra cost.

Training Fees

Training fees for LPF are US \$150 day, and provided on a client by client basis. No standard training is currently available.

Consulting Services

Assistance with initial configuration and installation of the LPF software is included in the base price of the software. Data Conversion, consultant services and customization is negotiated on a case by case basis for a fee of US \$300-\$350 per day.

Maintenance Contract

The maintenance contract is 40% of the license costs with a minimum of US \$200.00. For the annual maintenance contract (licensing fee) the client can download at least two free updates per year and receives free support by email or fax. Translation costs are negotiated on a case by case basis with the vendor.