TheLoanOriginationSystem(LOS)isdevelopedspeciallyaftosupporttheloanapplication processingneedsofbanksandfinancialinstitutions. Itemploysworkflowtechnologytocontrol andmonitorthevariouswork stepsintheloanprocessingand usesdigitalimagingtechnology toreducedelaysand inefficienciesinhandlingpaper documents.

**Highlights**
- Structured workflow for automatic routing of application
- Support different origination channels
- Support different loan products and loan types
- Loan type parameters and constraints definition
- Interface to external systems
- Provide internal credit checking, credit scoring and compliance check
- Support multi-tier rate structure
- Generate letters and forms automatically
- Application details and status enquiry
- Document imaging and archiving
Loan Processing Workflow

The most essential feature of LOS is its Loan Application Processing Workflow. Each loan application is monitored from the time it is entered into the system, and tracked through the various work steps of credit review and approval process. LOS allows these work steps to be performed in different locations while maintaining control of the flow and making sure no required steps are being missed.

Applicant Details

Typical work steps in the application workflow include:
- Application origination
- Duplication check and watchlist check
- Credit scoring
- Application form printing
- Internal credit check, e.g. credit card, time deposit, loan repayment history etc.
- Supporting document check
- External credit check, e.g. CIS
- Facility report / Approval form generation
- Application review
- Management approval
- Offer letter generation and printing

Graphical Workflow Representation for the LOS

Supported Loan Products

New loan types can easily be added to support new loan products. The loan products currently defined include, but not limited to the following:
- Mortgage Instalment Loan
- Tax Instalment Loan
- Personal Instalment Loan
- Hire Purchase

A financial institution can quickly define a new loan product to create a competitive advantage without awaiting system change. A new loan type can be defined by specifying the following parameters:
- Loan Type Defaults & Constraints
- Score Card
- Lending Authority List
- Supporting Document Checklist
- Letter Templates
- Compliance Checklist
- Disbursement Checklist

Origination Channels

LOS accepts applications originated from various channels:
- Walk-in application
- Mail-in / Fax-in application
- Internet application
- Off-site application using notebook PC

Common Tables and Parameters

LOS provides flexibility through a set of user-definable tables and parameters. Frequently changed variables are centrally kept in common tables and can only be modified by authorized users, thus providing control and security protection.

Internal Credit Checking

LOS can interface to the bank’s internal system to retrieve information of existing customers, e.g. customer information file, credit card, loans system etc. When sales staff calls up the registration module and fills in the applicant’s HKID number, LOS will retrieve the customer information from the
back-end system if the applicant is an existing bank customer, and then populate on the screen immediately. Information updated also can be uploaded to the back-end system.

Credit Scoring
The use of credit scoring is a more systematic approach to make approval decision and is now generally adopted as the preferred credit granting approach. The credit scoring mechanism automatically calculates the score of an application based on the information entered and the score card used. Score card parameters can easily be changed with the built-in score card maintenance interface. Multiple score cards for different loan types are supported in LOS.

Letters and Forms Generation
Letters and forms are generated in LOS automatically upon completion of certain task, e.g. loan approved or rejected. LOS will integrate application data with pre-defined letter templates to generate and print the letter without human intervention. Letter templates can be prepared and easily changed in common word processors.

Application Status Enquiry
LOS provides sophisticated search criteria interface to allow users to make application enquiry. In application status enquiry, LOS can provide information on which work step where the application is pending at the moment, e.g. waiting for certain supporting document or waiting for loan approval. This is particular useful for customer service representatives to handle enquiry from the customer. In addition, there is a work history associated with each application. It records down all the activities done on the application starting from when an application first enters the workflow till processing completes.

Reporting
There is a set of comprehensive reports provided with LOS. It includes MIS reports, loan progress reports, drawdown reports, workflow statistics reports etc. Moreover, LOS offers a data export function that users can create reports to meet their own unique requirements. LOS can work with third-party report writer tools to provide end-user definable reporting.
Imaging Features

With LOS, paper documents can be scanned into the system once they are received. Then the electronic images are available and can be shared by all LOS users immediately. All processing including verification, review and approval can be done with these electronic images displayed side by side with the application record on screen. This eliminates the delay in paper folder routing which is always the bottleneck in the application processing.

Electronic folders, similar to paper folders, will be created for each individual application to hold images of all the forms and the supporting documents. Images displayed on the screen can be zoomed, panned, scrolled, or rotated for convenient viewing.

LOS supports a wide range of document scanners, from the Fujitsu scanners to the high-end Kodak Imagelink scanners.

Interface to fax server to receive fax copy of supporting documents from customer
Interface to customer information system to get credit card records, loan repayment history etc
Interface to Excel LOANS System or existing loan system for loan drawdown and subsequent follow-up

Technical Information

LOS employs the latest software development approach of 3-tier architecture. That is, the graphical presentation, the application logic with the workflow engine and the database functions can be separately run on three different machines. LOS is developed using Microsoft Visual Basic and Java. Any relational database management system, which is JDBC compatible, can be used.

The basic system requirement for LOS is:

- An UNIX or MS Windows NT server, running
- A relational database such as MS SQL Server (NT only), Oracle or Sybase
- Eastmansoftware Workflow Server (NT only) or Excel Workflow Server
- Eastmansoftware Imaging Server (NT only) or Excel Document Server
- PC clients as user workstations
- Pentium based PC with 64MB memory
- MS Windows operating systems