**CHAPTER II**

**2.0 INTRODUCTION**

The influenced of information system has arose the eagerness of discovering more things that will make everything easy for client in such different aspects. It only shows that Information system is not only for business purposes, it can be for personal use or it depends on the user. It might be different from one another however the objective is to create a user friendly system example of this is local government unit. In order to reduced the paper works of the employees and to avoid the lost of important documents the government decided to used computerized system. All the transaction will be systematically organized. The traditional way of handling documents which is manually encoding and compiling of it will be deducted. Since there is no perfect system that exist the agency have to adapt the changes and take the risk because the problems might occur while the system is in used. It is a good idea to use a system to manage all the transaction and give accurate report to the public and transparency. Like any other organization the emerging needs of fast and reliable system is what strengthen the foundation of information technology. This chapter is the guideline to understand the succeeding chapters. Below are the different researched literature and studies that will establish the knowledge of the readers.

**2.1 Related Literature**

**2.1.1 Foreign Literature**

**1. University of Colorado Financial System and General Ledger**

Then University of Colorado has implemented this financial system. According to the administration “The Finance System team provides support for PeopleSoft Finance users including the areas of general accounting, accounts payable, project accounting, billing, accounts receivable, and asset management. We are also responsible for ensuring data integrity between all University financial systems including Concur Expense and CU Marketplace, and other systems such as HRMS, ISIS, and COFRS. We are also responsible for design, testing, and project management of fixes, enhancements, and system upgrades.” The goals of the school are to:

• A rudimentary understanding of higher education fund accounting.

• An overview of campus budget theory and practices.

• An understanding of how we use the Finance System general ledger to record and report on financial transactions.

There are two keys to understanding Finance System. The first is to be really comfortable with the **chart of account structure** and how it is used in higher education fund accounting to identify the resources available to the department, and for what activities the resource were spent. The second then is learning the **technical structure** of Finance System how to enter transactions into and get reports out of Finance System. Each Financial system transaction line is comprised of various fields of information referred to as a “ChartField.” ChartFields are classified as:

• Mandatory and must be completed by the user.

• Mandatory but their value defaults in and is not changed by the user.

• Optional to be used at the user’s discretion.

These fields are common to all Finance System module transactions, general ledger actual and budget journal entries; Purchasing system purchase orders, requisitions and vouchers; Payroll system funding distribution, etc. However, the client order of presentation may vary from screen to screen.

**URL:**<http://www.colorado.edu/abs/sites/default/files/attached-files/fin_training_manual>

**2. Louisiana State University General Ledger System**

The General Ledger System (GLS) is the core system to the integrated Financial Accounting System of the University. All the financial data of the University is stored in this system. Some of the data is fed to the GLS from other financial systems, as depicted on the chart below, while other data is entered directly into the GLS system via on-line screens. This User's Guide should provide you with the information necessary to use the University Financial Accounting System and the GLS. Under the integrated system there are 8 subsystems also called Subsidiary Ledger. Before getting the general ledger report which is the last part of the integrated system, the subsidiary ledger must be complete and updated to make the report accurate. The account code structure at LSU consists of two different types of accounts; a general ledger (G/L) account and a subsidiary ledger (S/L) account. The general ledger accounts are further divided into three types; assets, liabilities and mapping accounts. Each of these types of accounts is explained in detail in the pages that follow. A separate G/L mapping account is established for each fund/campus, or for each entity within a fund for which fund balances are maintained or for which separate financial statements are needed. Each S/L account is "mapped" to a specified G/L mapping account, and all budget, encumbrances, revenues, expenditures and pre-encumbrances in S/L accounts are recorded in summary in the G/L mapping account. Each S/L account maps to a single G/L mapping account while one G/L mapping account represents summary information for a group of related S/L accounts. Summary entries to these G/L mapping accounts are system generated and are not the responsibility of the personnel in the departments. To determine the mapping account for a specific S/L account, view the "Basic Account Information" in the Chart of Accounts (COA) system. See the appropriate section of this guide for how to use the COA. The LSU Chart of Accounts system (COA) was developed to maintain the University's valid general ledger and subsidiary ledger account numbers. These numbers are structured nine digit numbers that are unique across the system. The account structure section of this guide explained in detail the meaning of the digits and the relationship between subsidiary ledger and general ledger accounts. This section of the guide is provided to aid the user in how to inquire into the COA and to interpret the information. There are two different menus that relate to the University account numbers. The first is the COAMENU which is used to inquire into specific accounts and review the attributes associated with specific accounts. The second is the COA/GLS MENU, which is used to review the relationship that has been established between an account number and specific objects, transaction types and project numbers. There are many options available from this menu. Begin by typing the Account Type (G or S for general ledger or subsidiary ledger accounts), the nine-digit account number, and the appropriate fiscal year. If fiscal year is not entered, it will default to current fiscal year. The first three options provide the user with screens displaying the attributes that have been established for an account. For example, the **Basic Account Information** screen shown on the next page displays the account title, distribution code, begin date, expire date, and other generic account information normally captured on most University accounts.

**URL:** <http://www.fas.lsu.edu/acctservices/forms/far>

**3. University of Wisconsin Financial and General Ledger system**

The General Ledger module is the core of the SFS system. Many of the tables set up here are used by other modules throughout the system. This is where data from all modules comes together and where most of the financial reporting is done. Ledgers store posted general ledger journals for a set of Chartfield values by accounting period and fiscal year. The admin represent a set of books for each business unit and are usually populated by journal entries. There are several ledgers that are delivered with the SFS system. Most campuses are currently using the actual ledger, which stores all transactions except budgets and the student budget Ledger, which stores budget information. Before looking at the ledger the user must familiarized itself in the unique chart of fields and different acronyms that the admin provided. In order to understand the flow of processing general ledger reports, the business process of the system is included as well as screenshot of different forms.

**URL:** <http://www.uwsa.edu/fadmin/sfs/glddict>

**4. APPX Software Inc.**

General Ledger is a means by which you can measure the financial health of your company. In accounting terms, the “General Ledger” records each transaction coming into or going out of your company that involves the exchange of money, or involves an increase or decrease in the overall value of your company. These transactions can include everything from cash receipts to depreciation on equipment; all such transactions should be reflected in General Ledger. In order to record a transaction, you enter the amount into an “account”. The full set of your accounts is called the “Chart of Accounts”. There are many types of accounts in the Chart of Accounts. The broadest subdivision of accounts separates them into “Assets”, which are generally tangible, valuable items that your company owns; “Liabilities”, which are legal obligations your company owes to its creditors; and “Owners’ Equity”, which reflects the amounts that various individuals or companies have invested in your business. When a business first begins, the only equity available is the initial investment made by the owner of the business (the Owner’s Equity). As the company grows, it purchases goods, services, supplies, and equipment; these items are necessary to conduct business. In order to achieve transparency of the reports, the data that extract in the ledger must be accurate and balance.

**URL :** <http://www.appx.com/ftp/appx/documents/manuals/appx/t-apps/character>

**5. Open Systems Accounting Software**

The Open Systems Accounting Software (OSAS) product line consists of several accounting applications. Each application addresses a different phase of your financial operations; together, they form a powerful accounting solution to your daily and periodic accounting needs. Open Systems has a strong commitment to customer service and product quality. The Resource Manager application is the foundation or shell of OSAS; it provides the operating environment that holds the other applications. Resource Manager also includes three powerful business features: Global Inquiry, Executive Information Summary (EIS) and Print Manager. With Global Inquiry, you can drill around your accounting data to find selected information throughout your system. With EIS, you can access company information quickly and view summaries of all aspects of a company or a group of companies. With Print Manager, when you print reports to file, your reports can be stored, sorted, printed, and searched for specific text. Base applications are designed and produced with the largest possible number of industries in mind. They are most effective when you interface them with each other. Base applications are usually named after common accounting operations. Examples are: General Ledger, Accounts Payable, Purchase Order, Accounts Receivable, Sales Order, Payroll, and Inventory. General Ledger can be used as a standalone application, but you get optimal use from it when you interface it with other applications. Interfacing applications means that the information you enter in one application can be transferred to and used in other applications. So, interfacing your applications reduces data entry time and the number of possible errors that might creep in along the way.

URL:<http://www.whiteware.com/support/Manuals%20and%20Documents/Open%20Systems/OSAS%206.1>

**2.1.2 Local Literature**

 **1. Manila Doctors Hospital Financial System**

In 1989 is the birth of automated processes at the Manila Medical Service Incorporated (MMSI) with Sycip, Gorres, Velayo as the commissioned systems developer. MMSI implemented their first stand alone computerized business application: the Patient Account Receivable System (PARS) with Metrobank, Incorporated taking the lead in the project. PARS, DOS base accounts receivable (A/R) system was managed by an Accounting staff, trained at the Meralco Foundation Incorporated to provide internal systems support. In year 1992, the General Ledger System developed by Innovative Concepts Software House was implemented. At that time, computerization projects were still managed by the Accounting Department. It was in year 1994 that the Electronic Data Processing (EDP) came into form as a section unit of the Finance Division; with the Accounting staff manning the section and the Assistant Financial Controller as the Head. This also marked the start of the Local Area Network environment in the hospital. The main focus of the EDP operations at that time is in the DOS base financial applications covering General Ledger, Billing, Check Vouchers and Payroll modules.

URL: <http://www.maniladoctors.com.ph>

**2. WinMed Hospital Information System (HIS)**

The General Ledger application is multi company and accommodates the AHA chart of accounts. There is a monthly closing to retained earnings, with a yearly closing to retained earnings. The system will allow postings to previous periods, current period, and future periods.The system includes a report writer for tailoring financial statements. The balance sheet is free format, designed for total control by the user. There are several formats for income and expenses statements which lists previous periods and/or years with budget information. The system has 10 years of history for accounts and all detailed transactions processed in the General Ledger application with reports showing the beginning balances, all detail transactions processed, with the closing balance. The application also accommodates statistic information such as patient days or payroll FTE's. The Accounts Payable application is designed to process vendor invoices and patient refunds. This application will track vendor invoices, payments, 1099 information and refunds to patients. Cash requirements reports are produced upon demand and can also include an ageing. A history database of vendor invoices and payments is a base part of the system. System bank reconciliation and check registry are done online. Printing of checks with a laser printer can also include signatures and bank routing information.Thesystem also allows flexible distribution of invoices. Payroll / Personnel were designed to be very flexible for hospitals use. There are many type of earnings, pay periods, multi-company, and user defined accruals of benefits. The hospital defines their deductions and accrual of additional compensation. The payroll checks are printed on a laser printer which includes signatures and bank routing information. Also available as a standard feature is direct deposit. The system produces all required state and federal reporting. As part of the pay period processing, all financial information is interfaced to general ledger with accrual data, and automatic reversal of the accrual data the next general ledger period. The system contains history databases of all employees pay information for each check/direct deposit issued. There is also a history database of each pay period labor distribution for each division, department, and position the hospital has defined in their payroll. The personnel system allows for personnel actions to be documented on the employee record. The system tracks licenses, leave, physical examine, education, and user defined fields for tracking. The Depreciation application is an addition to the general ledger system, and will track the depreciation of any asset of the hospital. There a many conventions and methods to select from for deprecation of the assets. The application tracks book value and tax value if the user chooses these options. The depreciation is calculated each month and posted to general ledger. As new assets are added during the year, they will be calculated based on the method and convention selected and posted to general ledger. Assets are tracked by division and classification. Material Management application will maintain inventory for multi departments within the hospital. The system can track both billable and non-billable inventory items. The purchasing can process both inventory and non-inventory items. The system also tracks inventory uses by department and maintains a stock level for each hospital departments. The system generates automatic re-orders based on information on each item. Physical inventory can be done at any time, or as many times during the year the users chooses. The material management department can continue to operate during physical inventory and when the reports are produced will calculate any activity that occurred during that taking of the physical inventory.

**URL :** <http://www.winmedhis.com/financialsystems>

**3. Center for Medicare and Medical Services**

The Centers for Medicare & Medicaid Services (CMS) has implemented the Healthcare Integrated General Ledger Accounting System (HIGLAS). HIGLAS is an integrated, dual-entry, general ledger accounting system to manage healthcare outlays. CMS has 45 million providers and beneficiaries, and it uses HIGLAS to process approximately 4.5 million claims daily. HIGLAS improves accountability for Medicare payments to physicians, hospitals, and other providers servicing Medicare beneficiaries. HIGLAS is also used to support accounting for Medicaid and Children’s Health Insurance Program (CHIP) grants and to generate the CMS Financial Statements, including all vendor payments, payables, and receivables. The Healthcare Integrated General Ledger Accounting System (HIGLAS), a single integrated Internet-based accounting system, leverages the very latest in commercial off-the-shelf (COTS) software to support CMS' mission to:

* Collect standardized accounting data from Medicare
* Contractors for Part A and Part B claims
* Process Medicaid and CHIP grants
* Perform internal administrative program accounting

HIGLAS is responsible for performing seven major financial functions: Accounts Payable for disbursing payments owed to providers, physicians, suppliers, beneficiaries, insurers, employers, and other entities. Accounts Receivable for collection of overpayments made to providers, physicians, suppliers, beneficiaries, insurers, employers, and other entities. General Ledger for posting and recording all financial transactions summarizing and maintaining account balances by the fund structure and individual general ledger accounts. Cash Management for reconciling Medicare Contractors' bank statements. Administrative Program Accounting for maintaining data used to generate CMS' financial statements. Supporting the issuance of grants and subsidiaries made to other organizations or Individuals supporting budget formulation and execution. Audit Control for auditing the integrity of the data as it is entered, altered or deleted performed financial statement audits. Healthcare Transaction Base for providing a federal document view of the data in HIGLAS. The Healthcare Integrated General Ledger Accounting System (HIGLAS) is a new dual-entry accounting system that replaces and modernizes the existing fee for service Medicare Contractor accounting systems with a single standardized system. In addition to processing Medicare claims, HIGLAS will replace the legacy Financial Accounting and Control System (FACS), which accumulates CMS' financial activities, both programmatic and administrative, in its general ledger.

Benefits

HIGLAS, a component of the Department of Health and Human Services (DHHS) Unified Financial Management System (UFMS), will:

* Improve accountability for Medicare's payments to physicians, hospitals, and other providers servicing Medicare beneficiaries.
* Eliminate redundant accounting systems.
* Allow more timely and effective collection activities on outstanding debts
* Pay nearly 3 Million healthcare claims a day.
* Result in additional interest earned to the Medicare Trust Funds.
* Meet government financial regulations including the Joint Financial Management Improvement Program (JFMIP) and the Federal Financial Management Improvement Act of 1996 (FFMIA)

**URL:** <http://www.cms.gov/>

**4. P2 energey solution**

EXCALIBUR Financial System is a powerful and comprehensive General Ledger module is a flexible accounting and reporting system with special emphasis placed on the requirements of the oil and gas industry. All financial transactions entered or created in other Excalibur systems automatically flow to the General Ledger. The General Ledger system contains extensive standard financial reports and also allows you to customize financial reports to your specific requirements: Journal Voucher Data Entry Features, Duplication features to speed data entry, Unlimited detail transaction descriptions, Copy feature for automatic duplication of any current, historical or template journal voucher, Autoprompt feature for changing voucher detail line amounts only while leaving all other coding intact, Reversal feature for automatic reversal of any current or historical journal voucher, Accrual feature for automatically creating reversing journal vouchers in a user-specified accounting period, Recurring feature for automatically creating duplicate journal vouchers in any number of user-specified accounting periods, Journal voucher upload functionality from Excel template, Internal and Accounting Controls, Flexible chart of accounts structure to accommodate company preferences, Balanced journal entries are required (one-sided or out-of-balance entries are not permitted) Automatic generation of intercompany payable and receivable entries Journal voucher review/approval required, at your option, prior to creation of transactions, Multiple accounting periods open simultaneously at an entity and system-specific level, Simplified automatic year-end closing of P&L accounts, Bank account reconciliation for outstanding checks and deposits, Automatic entry cutback from partnerships or subsidiaries books to parents or partners books, Automatic company vehicle mileage allocation to AFEs, properties, leases or cost centers based on PMTA mileage rates.

Reporting

Extensive standard financial reports, including trial balances, general ledger activity, and comparative general ledger and financial reportsExtensive user-formatted financial reports including balance sheet, statement of earnings (P&L), statement of cash flows, and comparative financial statements and reports. Direct integration with desktop PC reporting tools (such as Excel) for customized reporting without having to rekey or download data from the system. User-defined groupings of accounts for spreadsheet and user-formatted financial reports. Multiple company reporting including consolidations. Detail transaction reports with all relevant source document information. Extensive online inquiries including general ledger balances, general ledger detail and drill-down from balance to underlying detail transactions. Audit lead schedules online history information available for prior periods.

**URL**:<http://www.p2energysolutions.com/excalibur/financial-accounting/general-ledger-and-financial-reporting#sthash.IbCofUAq>

**5. Government Integrated Financial Management Information System**

The Government of the Philippines (GOP) launched a comprehensive public financial management (PFM) reform program in February 2011. The details of the reform program are provided for in the *Philippine Public Financial Management Reform Roadmap*, a strategic plan for a whole-of-government approach to PFM reforms, which aims to clarify, simplify, improve and harmonize the financial management processes and information systems of the civil service. This includes reengineering business processes, integrating relevant systems in the Department of Budget and Management (DBM), Commission on Audit (COA), Department of Finance (DOF), Bureau of Treasury (BTr), and implementing agencies, as well as, reassigning functions between the oversight agencies. The desired results are improvements in fiscal discipline, fund allocation efficiency, and operational efficiency for the effective delivery of public services. A major reform of the Roadmap is the development of a Government Integrated Financial Management Information System (GIFMIS), an integrated IT solution that can collect and organize financial information in a central database to support, at a minimum, budget preparation, execution and financial reporting. President Benigno Simeon C. Aquino III, issued an Executive Order in September 2011 directing GIFMIS system development. In line with this, a two-track approach is being implemented by the GOP.

**2.2 Related Study**

 **2.2.1 Foreign Study**

 **1. General Ledger associates streamlines a shipping company**

The client's internally developed operational systems each had its own supporting financial system. It had separate accounts payable systems to pay for terminal and depot expenses, truckers, agency commissions, repair work orders and administrative expenses. Plus there were separate accounts receivable systems for shipments originating overseas and for those originating domestically. Separate, internally developed general ledgers were maintained for corporate and the operating units. While these operating ledgers satisfied financial requirements they were of little value to the operating regions that maintained their own expense analysis systems. The task for GL Associates was to integrate all these systems into one compliant financial systems product. First, we implemented new corporate accounts payable and general ledger systems by designing a new corporate chart of accounts (COA) and table of organization. New "coding structures" supported an annual budgeting cycle even before we implemented the new corporate ledger. This was especially critical, as the company had started a major reorganization that was not supported by the existing budgeting process. Next, we implemented the new corporate ledger and accounts payable systems. These contained a level of reporting detail and drill-down capabilities that far exceeded those of the legacy system. We then put into place the financial systems for the operating regions. This involved redesigning the COA so that it provided financial reporting and meaningful analysis to operational personnel. It was implemented concurrently with the elimination of all legacy accounts payable systems and the accounts receivable system for domestically originated shipments. The implementation was unusual because of the large number of interfaces to legacy operational systems that had to be built, the need to reassign vendor codes and the conversion of multiple payable files, each with its own format. It also had to satisfy complex accrual requirements to account for extensive delays in before submissions of invoices by terminals, depots and truckers. The streamlined systems developed by GL Associates greatly reduced the need for internal training, eliminated most of the previous system maintenance efforts, consolidated bank accounts, accelerated the closing cycle and provided management with more meaningful financial reporting and greatly enhanced analytical capabilities.

**URL:** <http://www.glassoc.com/resource_center_case_studies.php?id=2>

**2. Kuali Financial System Implementation Project**

USC´s existing financial system (EFS) is based on aging technologies and is in need of replacement. Their Enterprise Information Systems department provides core services to many USC organizations by effectively managing EFS. However, while EFS is a collection of stable applications that are adequate today, this aging system is at the heart of USC’s financial operations. This means that over time, EFS will become increasingly discordant with the business needs of USC. There are high risks associated with continuing to employ this aging technology. In addition to the severe lack of documentation, the development platform is old, and few experienced developers are available today. To address the increasing risks associated with EFS, USC decided to migrate to Kuali Financial System (KFS). The migration first addressed the General Ledger and Chart of Accounts modules, followed by Financial Processing and Vendor (Cashiering), Purchasing and Accounts Payable, Capital Assets, Budget Construction, and Accounts Receivable. With the help of Vivantech, USC identified 525 business functions required by their financial departments. The majority of the functions are available in KFS and a small number of functions required modification to the KFS software. Additionally, 138 functions in KFS are new to USC and considered enhancements to the USC systems.Vivantech mapped more than 40 peripheral systemsfrom EFS to KFS. USC chose a phased implementation, bringing General Ledger and Chart of Accounts online first at the beginning of a new fiscal year. Three months later they followed with Financial Processing, and then two months after that added Purchasing and Accounts Payable. The entire KFS suite migration is scheduled to span three years and four months. Resources used depended upon the number of modules and customization requirements; however, Vivantech has become an extension of the USC team, successfully executing the migration plan. Additionally, Vivantech´s onshore and offshore resources have allowed USC to scale up and down depending on the phase of the migration.

**URL:** <http://www.vivantech.com/case-studies/case-study-kuali-financial-system-implementation-project>

**3.** **Major financial institution put its trust in general ledger associates**

Account administrators needed to accurately track the investments and instructions of institutional customers in order to allocate funds for maximum investment return. Institutional investment account managers wanted to accurately record the current status of a client’s account, as well as any investment instructions that the client may have issued. The instructions ranged from securities buy/sells, cash transfers to wire transfers and check writing. Since billions of dollars were under management, some of the instructions dictated that money be moved overnight, and returned in the morning to gain the maximum in overnight interest. Accuracy depended on being able to properly calculate each account’s projected cash balance from a variety of different sources. These included pending trades, cancelled trades and settled transactions. Additionally, customer instructions and other extraordinary events needed to be figured into the cash balance calculation. GL Associates implemented a custom Intranet-based application that provided account administrators with an efficient means of viewing all the required data and inputting transactions and instructions in a simple yet elegant interface. This Cash Management System provides an orderly process for gathering and acting on cash balance information. An administrator logs onto the system and views a grid with summary account information. A click on any account results in a worksheet where details on account positions, instructions and cash balances can be easily viewed. A series of navigation buttons leads to screens that reveal more extensive details and entry areas for account rules, instructions and adjustments. The system also has extensive reporting capabilities including a tool for producing custom “ad hoc” reports. GL Associates relied on Microsoft technologies to implement what was an n-tiered solution. We started with a Microsoft SQL Server database that we populate nightly from the client’s mainframe system through IBM’s MQSeries for Windows NT. In the middle tier, the business processes were implemented using COM objects developed with Microsoft Visual Basic and managed by COM+. Web pages that comprise the system’s top tier are Active Server Pages. During the day MQSeries was also used to perform interactive messaging with a number of back-end custody and trust accounting systems.

**URL:** <http://www.glassoc.com/resource_center_case_studies.php?d=7>

**4. General ledger associates provides the right formula to solve accounting crisis**

The post-merger company found itself with over 40 separate general ledger databases, one each for its various plants, divisions and corporate entities. The general ledgers used different Charts of Accounts (COAs) operated on different software products that ran on diverse hardware platforms scattered across the country. Further complicating the situation, the corporate ledger interfaced to yet another software product that provided consolidation and corporate reporting. Divisional summary data entry into the consolidated ledger was time consuming. Last minute budget changes and adjusting entries resulted in significant discrepancies between plant/divisional, corporate and consolidated ledgers. Frequent business unit restructuring made ledger maintenance extremely difficult. Month-end general ledger runs took many hours with out-of-balance conditions frequently occurring. The various COAs not only were incompatible but also were applied inconsistently and could not adequately support management reporting and financial analysis. GL Associates first performed a two-week study to determine the best solution. We recommended the design of a uniform COA and the implementation of a single, integrated general ledger database using CA's Masterpiece for both general ledger maintenance and reporting. Each operating entity, using its local terminals, could interact with its part of the total general ledger database. The design phase that included pro-forma reports, the new COA and reporting structures took three months. System implementation with all operating units was completed over 18 months. Every phase of the project was completed on time and within budget. We also were responsible for system documentation and user training. Turnover was completely successful with no operating problems experienced by the many groups assuming ledger responsibility. With our proprietary software tools, COA maintenance on organization changes turned into a minor task. Manual entries of divisional summary data and discrepancies between divisional and corporate reports were eliminated. This combination of a report-oriented COA, new relationship structures, effective use of summary accounts and the elimination of separate consolidation systems achieved dramatic reductions in the time needed to produce end of month closings and reports. In one instance, the time was reduced from 7.5 hours to a few minutes. Additionally, a number of automated processes (validation of relationships, checks for completeness of allocations, variance reports) were implemented to assure ledger integrity. The general ledger system now simultaneously maintains summary accounts for financial responsibility center, legal entity and other management reporting. A vastly improved series of reports are produced directly from the ledger with CA's VRW report writer. Besides significantly reducing month end closing times, a very fragile financial reporting system was transformed into a rock solid one with unlimited growth potential.

**URL:** <http://www.glassoc.com/resource_center_case_studies.php?id=9>

**5. General ledger associates provides the right prescription for Merck**

Change always seems to bring unintended consequences. The drug company Merck was converting from a legacy financial system to JD Edwards General Accounting. The change included adoption of new Business Unit Codes and a new Charts of Accounts. Merck had to provide managers with the ability to look up new account numbers along with submitting and uploading budgets quickly and easily. All modifications and extensions to the JD Edwards system were written to run exclusively on the AS/400 with a character-based green screen interface. For users to have access to the AS/400 through their PCs, Merck had to install and pay licensing fees for a copy of Rumba on every PC. Plus, users who were accustomed to the Windows interface were forced to learn to use the green screen interface. When Merck realized the conversion caused the unintended consequence that account look-up and budget applications could not be implemented using the JD Edwards standard approach, they turned to GL Associates for a solution. The problem was solved when GL Associates used the existing Merck Intranet to build a series of database-driven interactive web sites on the AS/400. Their web sites contain applications that access the JD Edwards data on the AS/400 and present it to the user in a graphical user interface. The user could access the web sites through the Internet browser on their PC. This solution resolved all of Merck's concerns. It eliminated the need to train users on the JD Edwards application. Since data access was obtained through the corporate Intranet, software distribution was unnecessary and there was no need to buy software licenses for Rumba to provide connectivity to the AS/400. Because it is a huge global company, Merck's completely redesigned Chart of Accounts (COA) was long, complex and subject to change. Merck's budget holders around the world needed access to the new business unit and account numbers when calculating and submitting departmental budgets. They needed a way to look up these numbers on the COA without having to distribute hard copies to each user. GL Associates developed the Account Lookup System on the Merck Intranet. The user entered old business and account numbers via the PC's graphical user interface. Then, the system queried the account-mapping database on the AS/400 and presents the user with the new numbers. It also permitted drilling down to the account balances in the General Ledger. Query response time was instantaneous and the information was always up to date because the data came directly from the JD Edwards system. The solution was such a success that Merck requested a second, larger Intranet-based budgeting system. GL Associates provides the right prescription to make Merck healthy.

Budgeting SystemMerck department heads from all over the world submitted budgetary information to the finance department by emailing Excel spreadsheets. The spreadsheets were uploaded into the JD Edwards system. This method became unmanageable because the department heads changed the spreadsheet format before returning them. The finance department then would have to manually repair each spreadsheet before uploading to the general ledger system. Again, GL Associates used an Intranet-based solution. Users could access those accounts over which they have budgetary authority using a password. Once an account is selected, the system displays a spreadsheet-like interface that provides enhanced functionality. Users can build budget based upon past actuals or budgets or they can start from scratch. Budgets can be entered by year, quarter or month with features such as inflation rates and growth rates provided for ease of use. Users can then save multiple alternative budgets on the server until choosing one to submit. A single button click then uploads the budget into the JD Edwards database. Total development time for the budgeting application was only two months. The cost was less than the one-year maintenance charge for the old mainframe-based budgeting system. The Merck financial team now requires that all new in-house applications be developed as Intranet applications.

**URL:** [**http://www.glassoc.com/resource\_center\_case\_studies.php**](http://www.glassoc.com/resource_center_case_studies.php)

 **2.3 Synthesis and Relevance of the study**

These studies contributed a lot to the group as well as to the project. It gives idea and enlightened the group perspective to the general ledger as a system. In reality general ledger is one of the features of integrated financial system however its stand at the center and the end point of the system. In regards to the relevance of the study, many of the organization as of now are using the automated system to improve the progress of the giving a good service to the clients and to the reduced the manual activities. There is organization that used general ledger however it is not integrated on the other hand the user needed to encode the data manually. There is some organization that separates the general ledger from the financial system however it is integrated with the other subsystems or features, some of features are budget preparation, payroll, Inventory etc. The thing is the all the input data will be merge into one database and the ledger will extract and ready to print the report. There is organization that using general ledger as an independent system. As the new researchers the entire group decided to continue what being started in order to achieved a quality general ledger system. There is case study stated that “general ledger will be more functional if it is integrated to the other system”. For the future researchers the group will ensured to make this project as a good reference.