

WestLB
Westdeutsche Landesbank
Girozentrale
New York Branch

Response Document for
Electronic Data Processing
Federal Reserve Examination
First Day Letter
For Branches or Agencies of Foreign Banks

September 1996

1.1 - D

A description of preparedness under emergency conditions.

Response:

The Disaster Recovery Plan provides a description of preparedness under emergency conditions. For copies of the Disaster Recovery Plan, please contact:

Disaster Recovery Project Manager
Information Services

6.9

Flowcharts that display the flow of information among systems used for trading activities. Provide separate flowcharts for:

- a. Trade processing (front and back office)
- b. Risk management applications
- c. Credit approval and exposure monitoring
- d. Accounting

Response:

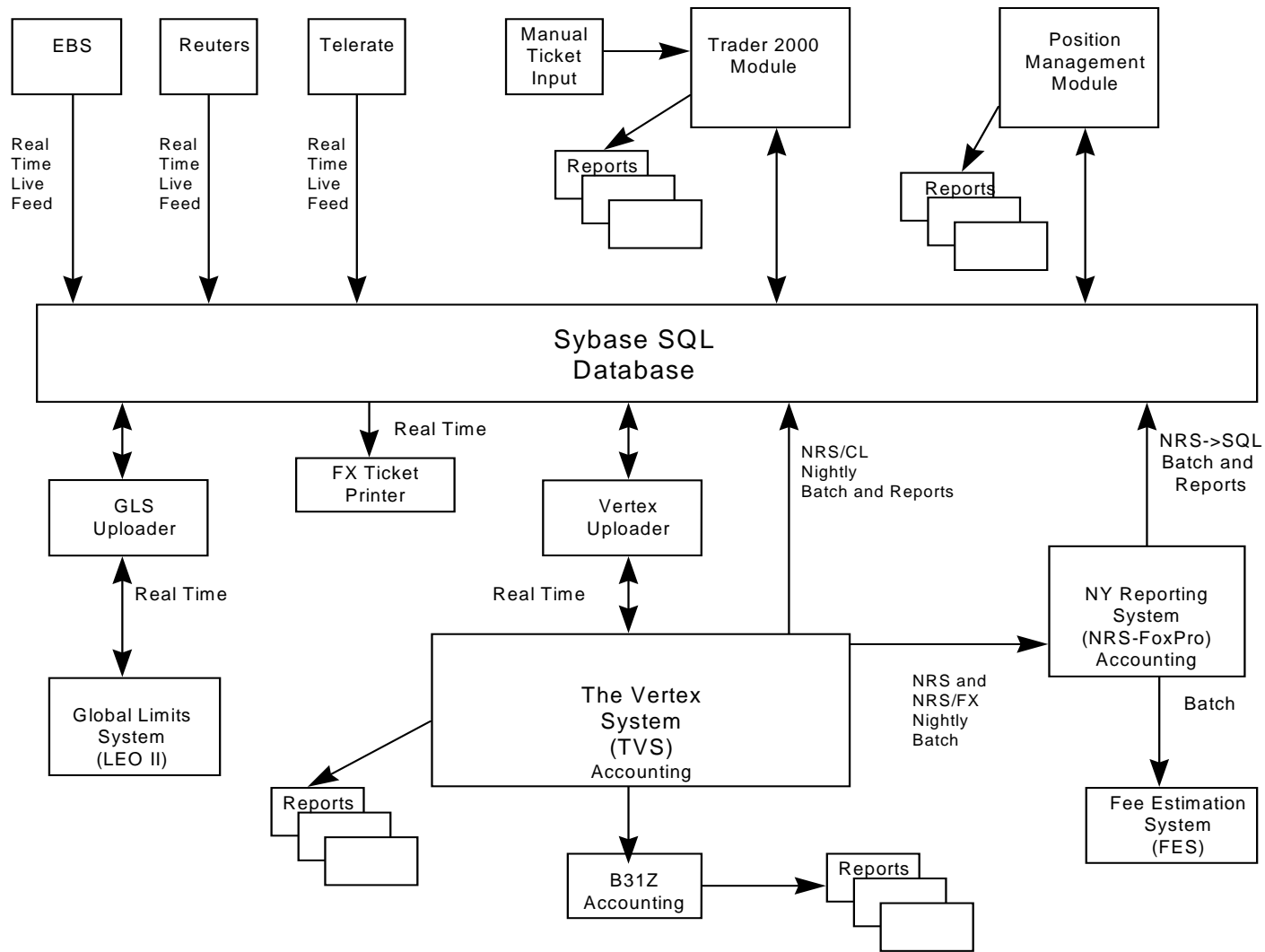
Flowcharts that detail specific trading activities are as follows:

- a. Trade processing (front and back office)
 - Trader 2000 Trade Processing
 - TradeWind Batch Flowchart
 - Straight Through Processing. (See attached flowchart presentation manual)
- b. Risk management applications
 - Nightly Batch Extracts for Glory
 - Trader 2000 Data Used in Glory
- c. Credit approval and exposure monitoring
 - KV Process
- d. Accounting
 - Trader 2000 Trade Processing
 - TradeWind Batch Flowchart

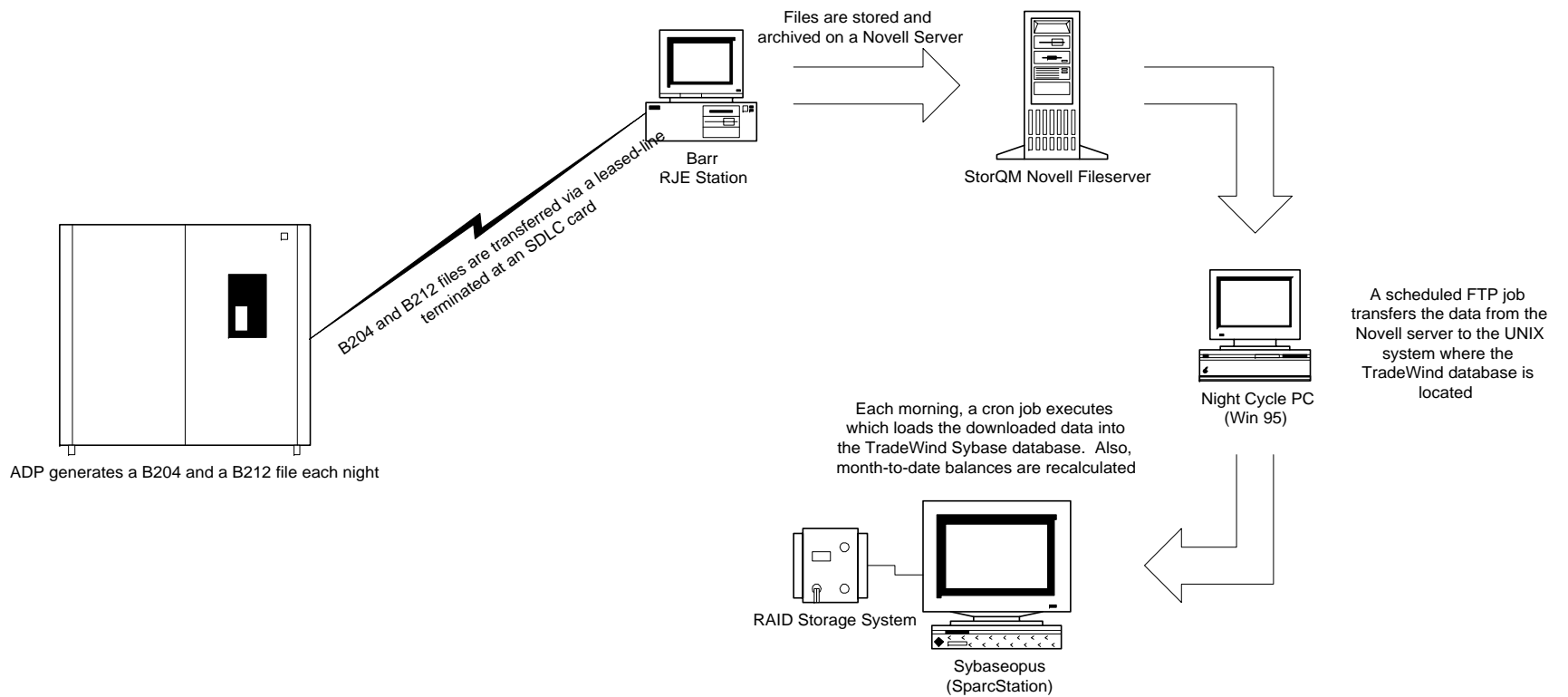
Note: The Trader 2000 and TradeWind Batch flowcharts describe more than one type of trading activity

These charts are displayed on the next pages.

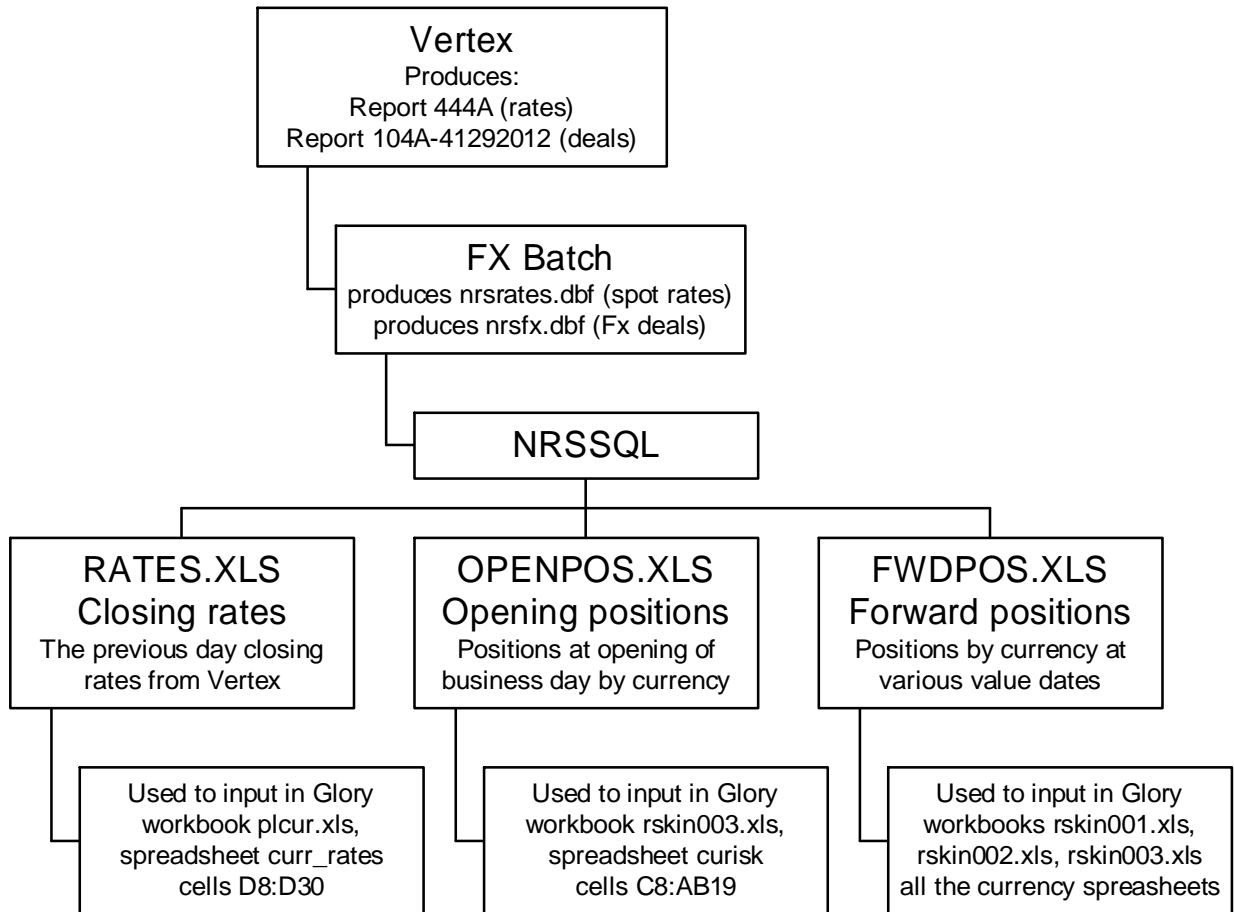
Trader 2000 Trade Processing



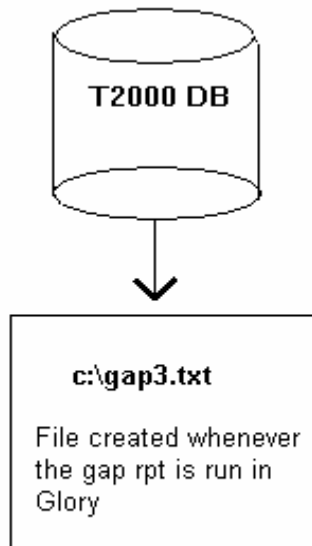
TradeWind Batch Flowchart



Nightly Batch extracts for Glory



Trader 2000 Data Used in Glory



Credit Approval

The credit approval process for all trading related lines is described by the bank's standard KreditVorlage (KV) application process (please see attached flowchart). The KV process defines the workflow process from the identification of a potential deal or line, preliminary approval by the local credit committee, execution of full credit analysis, and submissions to local and head office credit committees and management.

The branch is currently implementing a workflow control system for the KreditVorlage process based on Lotus Notes groupware. The Notes application will provide controlled online access to KV documents, allow centralized storage and disaster recovery of electronic evidence, and allow management and account officers to instantly monitor the completion status of outstanding applications.

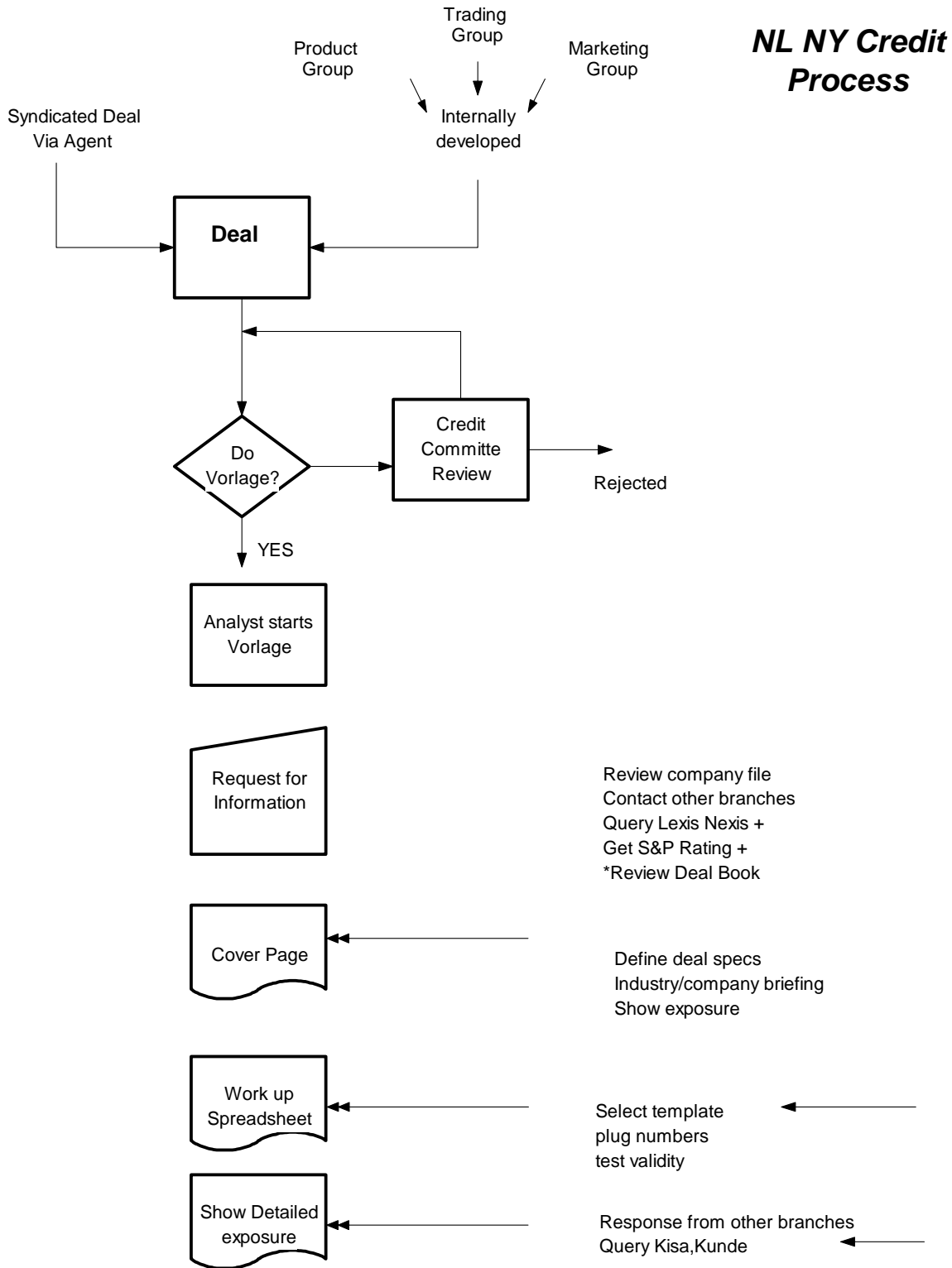
Exposure Monitoring

Counterparty lines exposure monitoring is supported using the General Electric RXM system, which is referred to as the LEOII or Global Limits (GLS) system. The LEOII/GLS system is administered out of the Head Office in Düsseldorf.

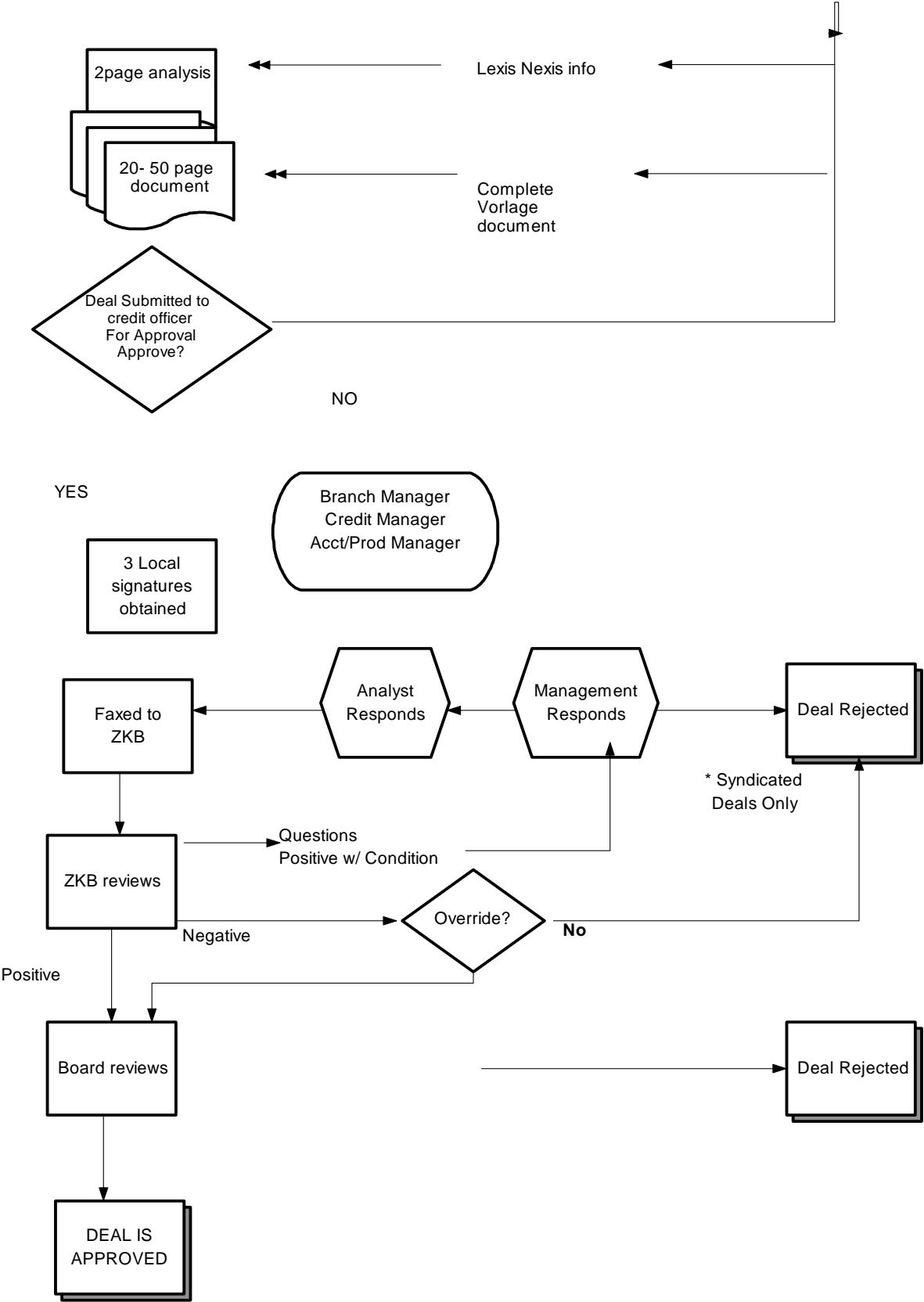
Swap exposure lines are monitored using SDI, a custom application developed and run out of the Head Office in Düsseldorf. This application is currently being phased out as Swap activity is migrated to the West Merchant Bank.

The flowchart on the next page illustrates the KV process.

KV Process Flowchart



SECTION 7 - AUDITING AND INTERNAL CONTROLS



Chubb Services Corporation for the Chubb Contingency

Trading Facility

7.5

List functions/activities that are outsourced. Describe the extent of audit coverage of outsourced activities.

Response:**A. Disaster Recovery Contingency Trading Facility.**

Please refer to the attached contract with Chubb Services Corporation for the Chubb Contingency Trading Facility.

B. ADP

ADP Financial Information Services, Inc.(ADP) provides an externally contracted system used by WestLB Securities Americas, Inc. for books and records processing of Securities Trading activities. ADP is a multi-currency batch-driven service bureau system originating from Jersey City, NJ that is accessed by WestLB via an online connection.

The ADP processing system is subject to Audit review as part of the standard Audit procedure for the Treasury Operations and WestLB Securities Americas, Inc.

7.8

A summary of management information systems including software and hardware configurations. Provide flowcharts showing how information flows through the branch/agency giving consideration to management and regulatory reports, subledgers, and the general ledger.

Response:

The following summarize WestLB's management information systems:

- A. APS
- B. CaTS
- C. Compliance
- D. Fee Estimation System (FES)
- E. Futrak
- F. Global Limit System (GLS) - LEO
- G. MUREX
- H. New York Reporting System:
- I. SDI
- J. The Vertex System (TVS)
- K. Trader 2000

For an illustration of how data and information flow from these systems throughout the branch, please refer to response 6.9 for the Trader 2000 Trade Processing flowchart.

A. Sungard Advanced Portfolio System (APS)

Vendor: Sungard Financial Systems

Software: Client: Windows 3.1
Server: Btrieve Technologies' Scalable SQL Version 3.01

Hardware: Client: PC
Server: Netware 3.12 File Server

Description: Advanced Portfolio System (APS) is an investment/portfolio management product used by WestLB Securities.

B. CATS

- Vendor:* CaTS Financial Systems
- Software:* DOS Client running from a Novell file server
- Hardware:* PC
- Description:* Front-office pricing and risk management system for WLB Swaps group. This applications is currently being phased out as deals are transferred to West Merchant Bank's Summit system.

C. Compliance

- Vendor:* Internal Development
- Software:* Client: Windows NT 3.51 or Windows 95, Powerbuilder
Server: Unix, Sybase System 10
- Hardware:* Client: PC Compatible machines based on Intel processors.
Server: Sun Sparc 20
- Description:* The Compliance application tracks purchases and sales of securities by WestLB employees. The application records information regarding:
- Restricted Companies
 - Securities sales and purchases by employee and by date
- In addition, the application provides reports to display recorded information selected by date, employees, companies, and other statistics.

D. Fee Estimation System (FES)

- Vendor:* Internal Development
- Software:* FoxPro
- Hardware:* PC

The Fee Estimation System (FES) provides reconciliation processing. It will be replaced in the 3rd Qtr of 1996 by the Fee Management System (FMS), which will provide fee allocation to the appropriate customers and departments, fee reporting, and payment reconciliation.

E. FUTRAK

- Vendor:* Investment Support Systems, Inc.
- Software:* Third-party modular software running off the LANC Netware 3.12

Hardware: Any PC running DOS and MS Windows 3.1. Futrak is not compatible with MS Windows NT 3.51

Futrak is a Euro-Futures module that provides position keeping, P&L, and marked-to-market revaluation of Euro-Future trades to the Financial Group, Operations, and Treasury. It is licensed from Investment Support Systems, Inc.

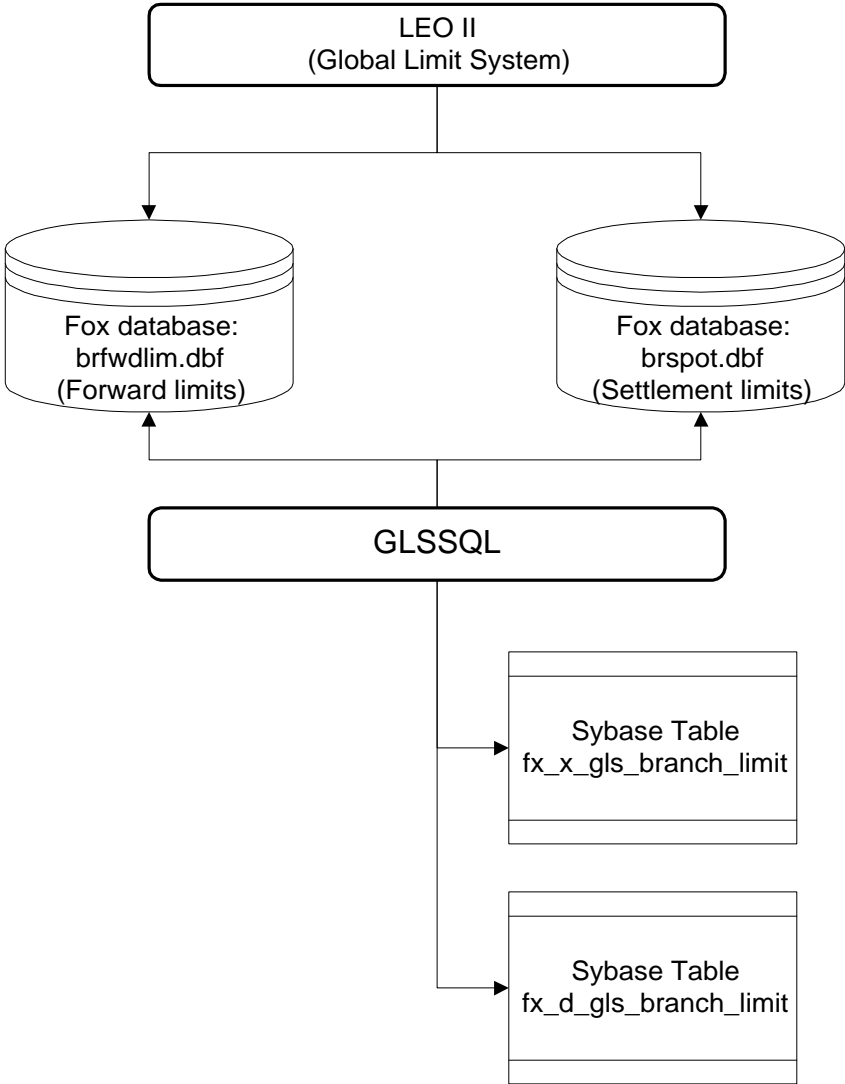
F. Global Limits System (GLS) - LEO

Vendor: *General Electric*

Software: RXM Risk Management System

Hardware: GEISCO Network

Description: The Global Limits System (also referenced as GLS or LEOII) tracks counterparty limits and availability for trading products globally. The system is contracted by the Head Office in Düsseldorf. GLS is accessed by modem using the GE GEISCO network.



G. MUREX

Vendor: Murex

Software: DOS Client running from a Novell file server

Hardware: PC

Description: Foreign Exchange Options risk management and deal capture package.

H. New York Reporting System (NRS)

Vendor: Internal Development

Software: DOS Client running from a Novell file server

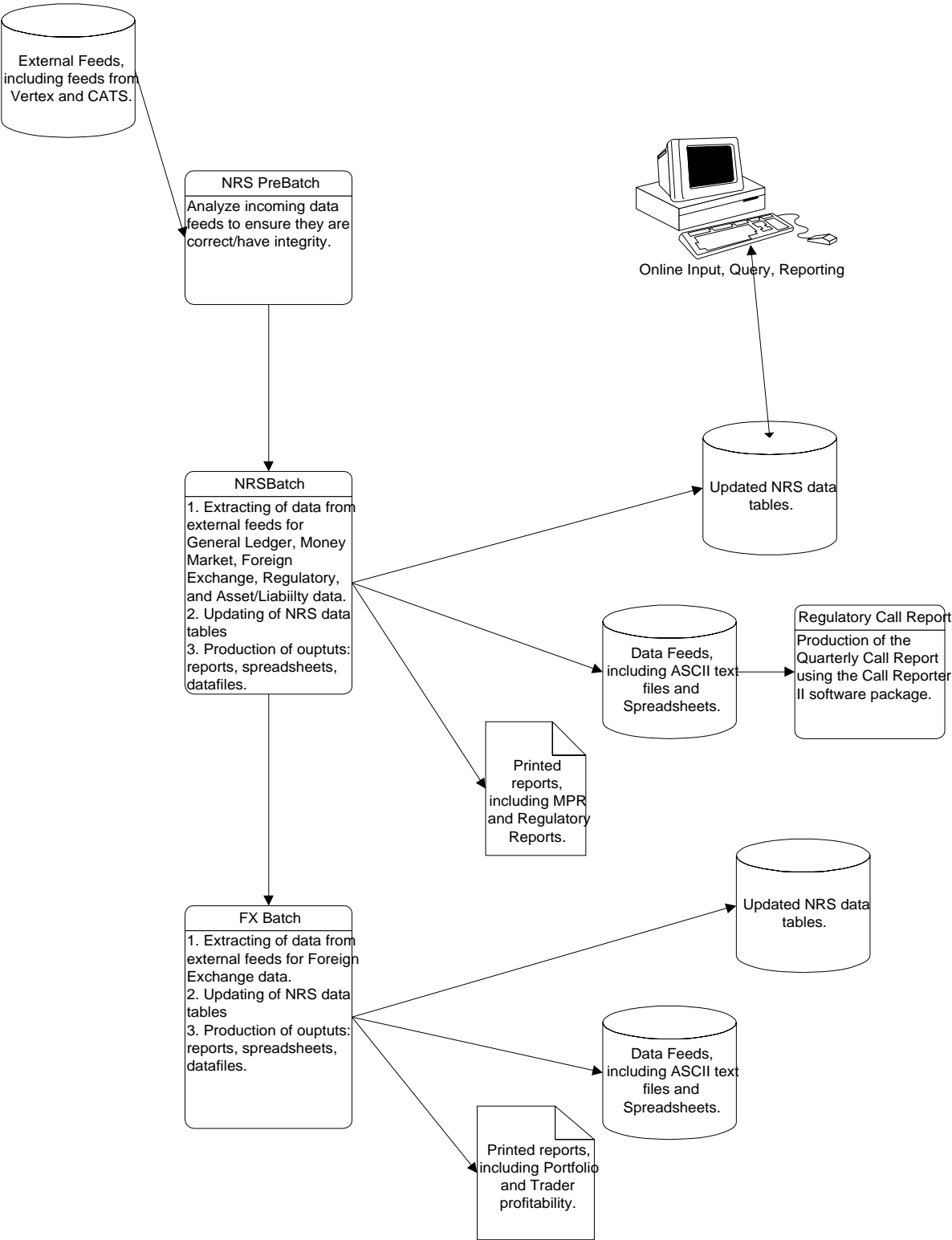
Hardware: PC

Description: The New York Reporting System is a locally developed MIS system used to address local financial reporting requirements. The following comprise NRS modules:

1. NRS Batch
2. NRS/CL
3. NRS/FX
4. NRS Online
5. NRS Pre-Batch
6. NRS Security
7. NRS->SQL

For an illustration of how information flows from NRS, please refer to the flowchart on the next page.

NRS Processing Flowchart



1. NRS Batch

Software: Microsoft FoxPro/DOS 2.6, Pinnacle's NetLib Function Library

Hardware: IBM Compatible/Intel-based workstations

This is a daily, weekly and monthly batch production process. It will refresh NRS data tables with data from external sources, including the Vertex and CATS applications. Various jobs/programs within this application will verify, extract, and load data into the application's tables to be used for reporting and online access. The data processed includes:

- General Ledger information (balances, averages, and selected transactions)
- Money Market transactions
- Commercial Loan transactions
- Foreign Exchange transactions
- Internal and External Swap transactions

The application will process jobs based on their specified frequency (e.g., daily, weekly, or monthly), and will run unattended. Built-in controls allow for prerequisite and post-processing job flow to ensure data integrity. In addition to the extracting of current data from external systems, NRS Batch will also create many reports and external data feeds. These files include Portfolio Profitability reports, MPR's (Management Profitability Reports), Regulatory Call Report data feeds, Daily Regulatory Information reports, and various Subledger-to-General Ledger reconciliation reports.

2. NRS/CL

Software: Powerbuilder 4.0, Sybase 10, Visual C++, Tools.h++ 7.0, DBTools.h++ 2.1, Windows NT 3.51

Hardware: PC - Intel Pentium

NRS-CL, the Commercial Loan reporting subsystem, provides daily and monthly commercial loan reports, including Tranche, Loan, Primary Money Market (PMM) line, and PMM outstanding information as based on the needs of WestLB. NRS-CL provides two types of reports:

- Reconciliation reports, which allow for reconciliation of commercial loans to the general ledger and are primarily used by the Accounting Department.
- Alpha reports, which show line, outstanding, letter of credit, interest income, fee income amount, and other related information about each facility and tranche. These reports display all or a subset of the data and are customized based on departmental needs.

3. NRS/FX

Software: Microsoft FoxPro/DOS 2.6, Pinnacle's NetLib Function Library

Hardware: IBM Compatible/Intel-based workstations

This is a daily production process. It will refresh NRS data tables with data from external related to Foreign Exchange activities. Various jobs/programs within this application will verify, extract and load data into the application's tables to be used for reporting purposes. Built-in controls allow for prerequisite and post-processing job flow to ensure data integrity. In addition to the extracting of current data from external systems, FX Batch will also create many reports and external data feeds. These files include Portfolio and Trader Profitability reports.

4. NRS Online

Software: Microsoft FoxPro/DOS 2.6, Pinnacle's NetLib Function Library

Hardware: IBM Compatible/Intel-based workstations

This application provides users with Online access to various business modules, including General Ledger, Assets and Liability Reporting, Money Market, Foreign Exchange, and Regulatory Reporting information. User options include data entry, reporting, and system maintenance options. Management and Regulatory Reporting options are used to produce and prepare various reports and output data files including Portfolio Profitability reports, MPR's (Management Profitability Reports), Regulatory Call Report data feeds, Daily Regulatory Information reports, and various Subledger-to-General Ledger reconciliation reports.

5. NRS Pre-Batch

Software: Microsoft FoxPro/DOS 2.6, Pinnacle's NetLib Function Library

Hardware: IBM Compatible/Intel-based workstations

This application is a batch process that interrogates the incoming data to be processed by the NRS Batch and FX Batch applications. It verifies the integrity of the data feeds using various methods, including:

- ⇒ Checking that the file size is within expected limits
- ⇒ Verifying the "As Of Date" for the feed to ensure the proper days work is processed.

If NRS Pre-Batch encounters a data feed that does not fit the expected limits, the feed is renamed to ensure that it is not processed in production by NRS Batch and FX Batch.

6. NRS Security

Software: Microsoft FoxPro/DOS 2.6, Pinnacle's NetLib Function Library

Hardware: IBM Compatible/Intel-based workstations

This application controls and limits access to the various NRS Online options. Based on individual UserIDs and passwords, users of NRS Online are only allowed access to the options they have been authorized.

7. NRS -->SQL

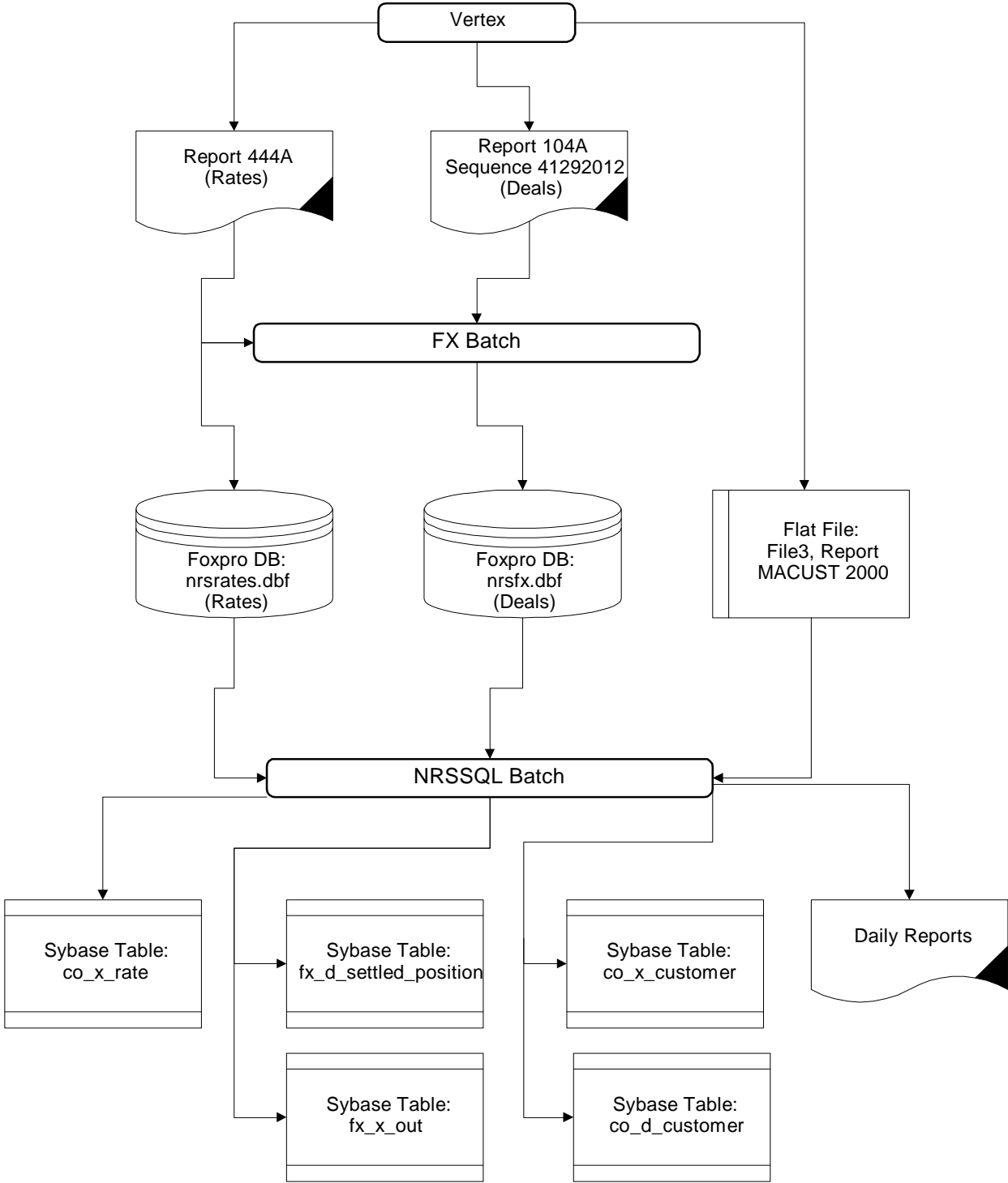
Software: Clients: Windows NT 3.51, Powerbuilder 4.0
Server: Unix, Sybase System 10

Hardware: Client: PC compatible machines based on Intel processors.
Server: Sun Sparc 20

NRSSQL is a batch process that feeds the Trader 2000 system with information from Vertex. This information comes directly from Vertex reports or indirectly from information pre-processed by the FX Batch. In Parallel, some of this information is processed and exported in Excel spreadsheets to feed the FX information from the Glory system.

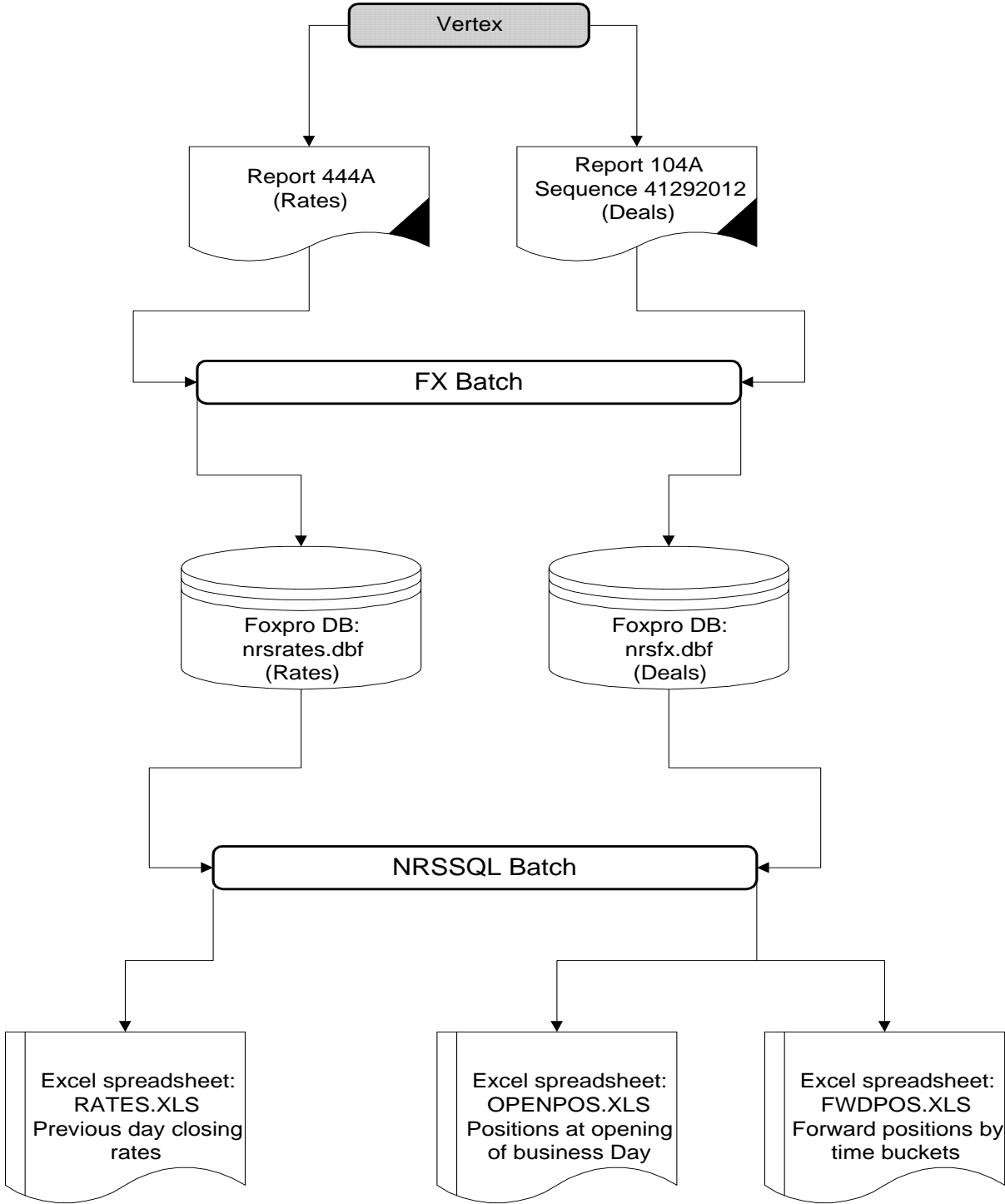
For an illustration of how information flows from NRS -->SQL, please refer to the flowcharts on the next pages.

NRSSQL feeds tables needed by the Trader 2000 System



Flowchart 1: NRSSQL and Trader 2000

NRSSQL creates spreadsheets to feed the Glory System



Flowchart 2: NRSSQL and the Glory system

J. SDI

Software: Clipper-based application which executes on a DOS Client. Files reside on a Novell file server in Duesseldorf.

Hardware: PC

A Back Office system for WLB Swaps group, SDI performs deal captures, confirmation, and reval functions, but is currently being phased out by Summit, as deals are transferred to West Merchant Bank.

K. The Vertex System (TVS)

Software: Fortran/MVS ESA

Hardware: IBM ES9000

TVS is the accounting system for the WestLB New York Branch. The system resides on and runs from the Head Office mainframe in Dusseldorf and is accessible in New York through the gateway.

For an illustration of how information flows from TVS, please refer to the Trader 2000 Trade Processing flowchart in response 6.9.

L. Trader 2000

Software: Powerbuilder 4, Sybase System 10 Database

Hardware: PC Workstations, SparcStation20 Servers

Trader 2000 is a trade capture application for FX and MM deals, and it includes:

- For the FX processing, trade entry, an FX blotter for each portfolio, and real time updates of position and P&L information.
- For the MM processing, trade entry and roll over of matured trades.

Trader 2000 produces reports, including MM Gap, MM Cash Flow, and MM and FX Trade Detail.

The following are Trader 2000 modules:

1. EBS Feed
2. Position Management
3. Reuters Feed
4. Telerate Feed
5. Ticket Printer

6. Trader 2000 Uploader - Vertex
7. Trader 2000 Uploader - LEO (GLS)

1. EBS Feed

The EBS Feed reads new FX deals from a Quotron EBS ticket feed, then loads them into the Trader 2000 database..

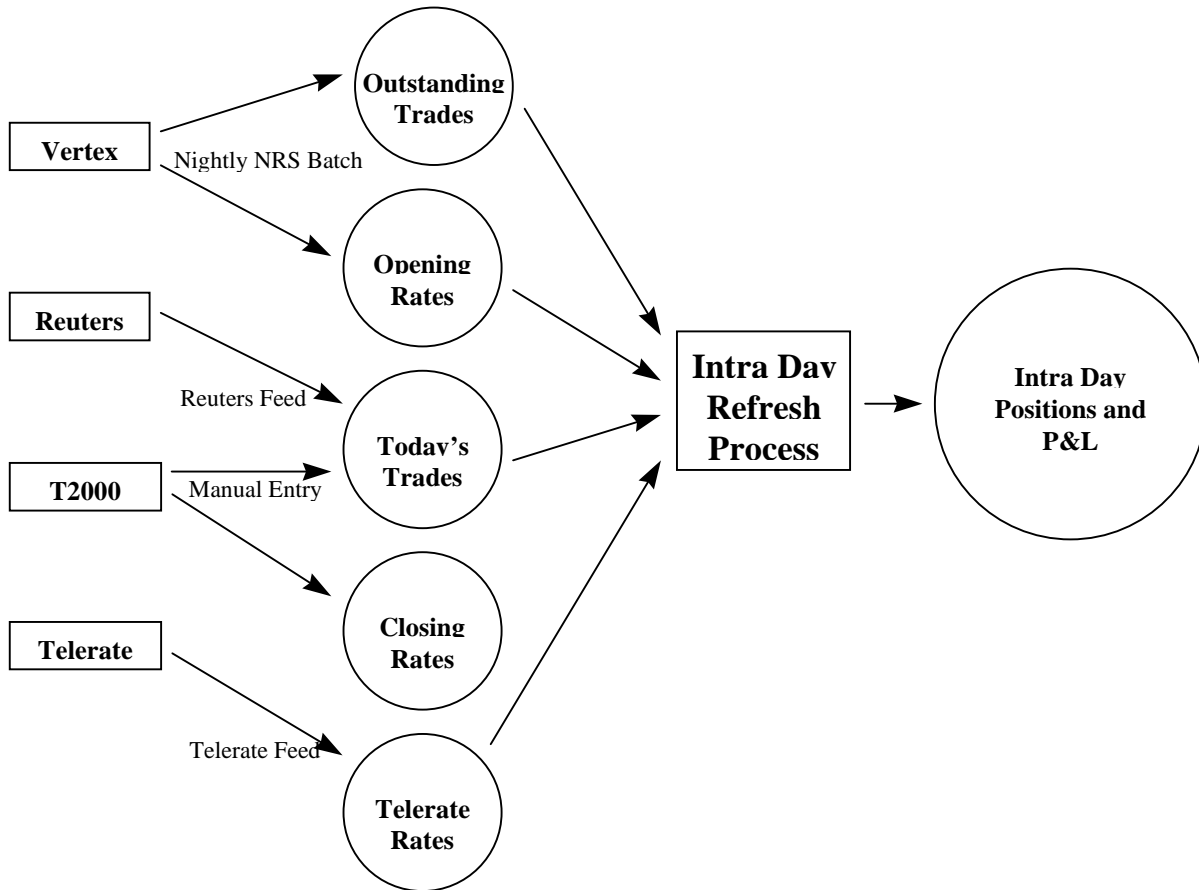
2. Position Management

Position Management provides real-time position and profit and loss (P&L) reporting as well as credit limit monitoring and reporting to Trader 2000.

Real-time information is provided through an automatic refresh feature that updates data to reflect FX blotter activity from the Trader 2000 module, current rates from the Telerate feed and closing rates for the day.

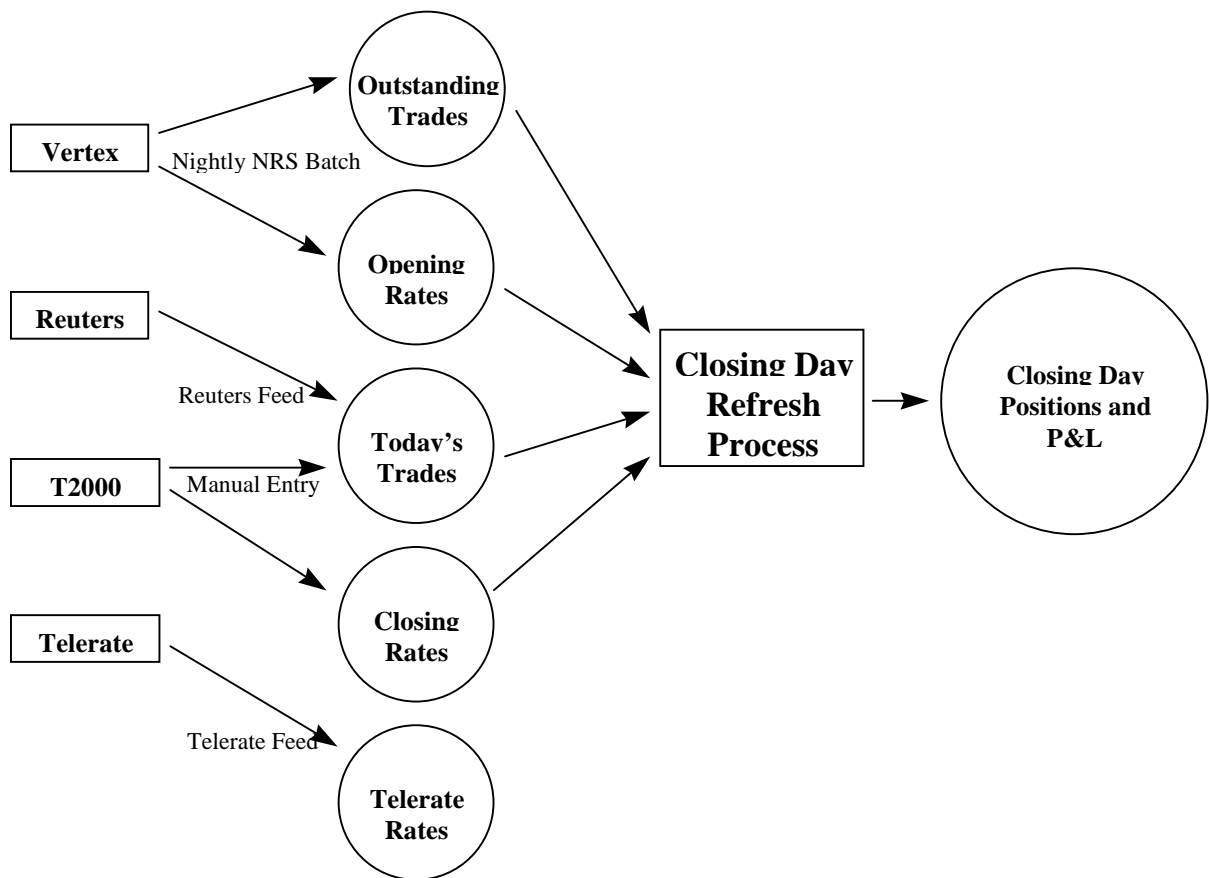
The following flowcharts illustrate how information flows from Trader 2000, Position Management.

Throughout the whole day a process calculates Positions and P&Ls according to the Telerate Feed.



Flowchart 2: Intra Day Positions and P&L calculations

At the end of the business Day, a second process starts. It calculates Positions and P&Ls



Flowchart 3: Positions and P&Ls at the Close of the Day

3. Reuters Feed

The Reuters Feed reads new FX deals from the Reuters Dealing 2000 feed, then loads them into the Trader 2000 database. The feed is implemented by a serial cable running from the Reuters server machine to the PC.

4. Telerate Feed

The Telerate Feed obtains live currency rates from Telereate information that is available over the LAN, then loads them into the Trader 2000 database. These rates are updated every few minutes.

5. Ticket Printer

The Ticket Printer prints FX tickets on a standard ticket after the Vertex uploader machine makes a long form attempt. If a deal is modified or deleted, the Ticket Printer also prints a ticket.

6. Trader 2000 Uploader - Vertex

The Trader 2000 Vertex Uploader - takes MM and FX deals from the Trader 2000 database and uploads them into Vertex. Deals can be entered, modified, deleted, and long formed. The Uploader captures deal information including the Vertex contract number and stores it with the deal in the Trader 2000 database.

7. Trader 2000 Uploader - LEO (GLS)

The Trader 2000 GLS Uploader - takes MM and FX deals from the Trader 2000 database and uploads them into GLS. Deals can be entered, modified, deleted, and long formed. The Uploader captures deal information including the Vertex contract number and stores it with the deal in the Trader 2000 database.

Funds Transfer Department Phase I and II Test Results

Funds Transfer Department Recovery Procedures

9.1

Contingency plan(s) covering any and all electronic funds transfer activities, and any recent tests performed.

Response:

Please refer to the following documentation located on the next pages:

- Disaster Recovery Phase I and Phase II test results.
- Disaster Recovery procedures for Funds Transfer Department.

9.8

Any material describing the function's overall physical and logical (terminal) security access systems currently in place to control/monitor online systems.

Response:

For access to any online system, a user will need:

1. A network ID connecting to a PC with Eicon Access gateway software, and that provides:
 - Terminal Emulation
 - or access to a 3270 Terminal.

See *The Securities Procedures Manual* for information on how to obtain a network account.

2. An online ID with access to the particular region(s) where that system(s) is located. This access is obtained through the following steps:
 - ⇒ The user must fill out an Online-Authorization Access Form, get it approved and signed by both the appropriate department head and the audit department, then deliver it to the Security Administrator.
 - ⇒ If the form is complete, the Security Administrator will set up the user with an online ID with access to the appropriate region(s) through the Online Edit System.
 - ⇒ When the Audit department releases the transactions in the Edit System, it will update the security system in Germany, effective the following business day.
3. Finally, a specific profile with access to the appropriate system, such as the Vertex system, which must be obtained by the following means:
 - ⇒ Again, the user must fill out a Vertex Access Form and get it signed by the department head and the audit department, then deliver it for review to the Security Administrator.
 - ⇒ If the form meets approval, the Security Administrator will set up the user's profile on the appropriate system with that particular profile.
 - ⇒ The Audit department will release these entries.

1. For more specific documentation, please see *The Online Security Manual*.

Attached on the following pages are the Online-Authorization Form and the Vertex Access Form.

Vertex 3.7 Access Request

WestLB New York Branch
Information Services Department

DATE: _____

ACCESS REQUEST FOR _____

DEPT. _____

The following profile is requested for the above named employee (circle one only):

- | | |
|------------------------------------|------------------------------------|
| Accounts Supervisor | General Inquiry |
| Accounts Clerk-A | Trade Services Supervisor-A |
| Accounts Clerk-B | Trade Services Supervisor-B |
| Treasury Analyst | Trade Services Clerk |
| Settlement Supervisor | Trade Finance Clerk |
| Settlement Clerk | Audit |
| Control Clerk | Security |
| Loan Administration Supervisor | NRS Support |
| Loan Administration Clerk | DB Manager |
| Position Clerk | DB Clerk |
| Credit Analyst-A | EDP Reporting |
| Credit Analyst-B | LIM Support |
| Securities Settlement Clerk | Securities Settlement Supervisor 1 |
| Securities Settlement Supervisor 2 | |

Signed _____ (Department Head)

User Secrecy Declaration

Your password to access Vertex is confidential and must not be disclosed to anyone. Any information obtained as a result of the computer access granted to you is of a confidential nature and is not to be revealed to any individual or corporation outside of WestLB.

Signed _____ (Applicant)

On-Line ID: _____

Data Input &
Approved/Date _____ (Security Administrator)

Approved/Date _____ (Audit)

Released/Date _____ (Audit)