Technical Manual
CL Software

FOR TECHNICAL USE OF THE PRODUCT

BASIC Bank Inter Branch Reconciliation Software

1.   Technology

Server: IBM server

Operating System: AIX

Programming Language: VB.NET (Framework 3.5)

Database: ORACLE
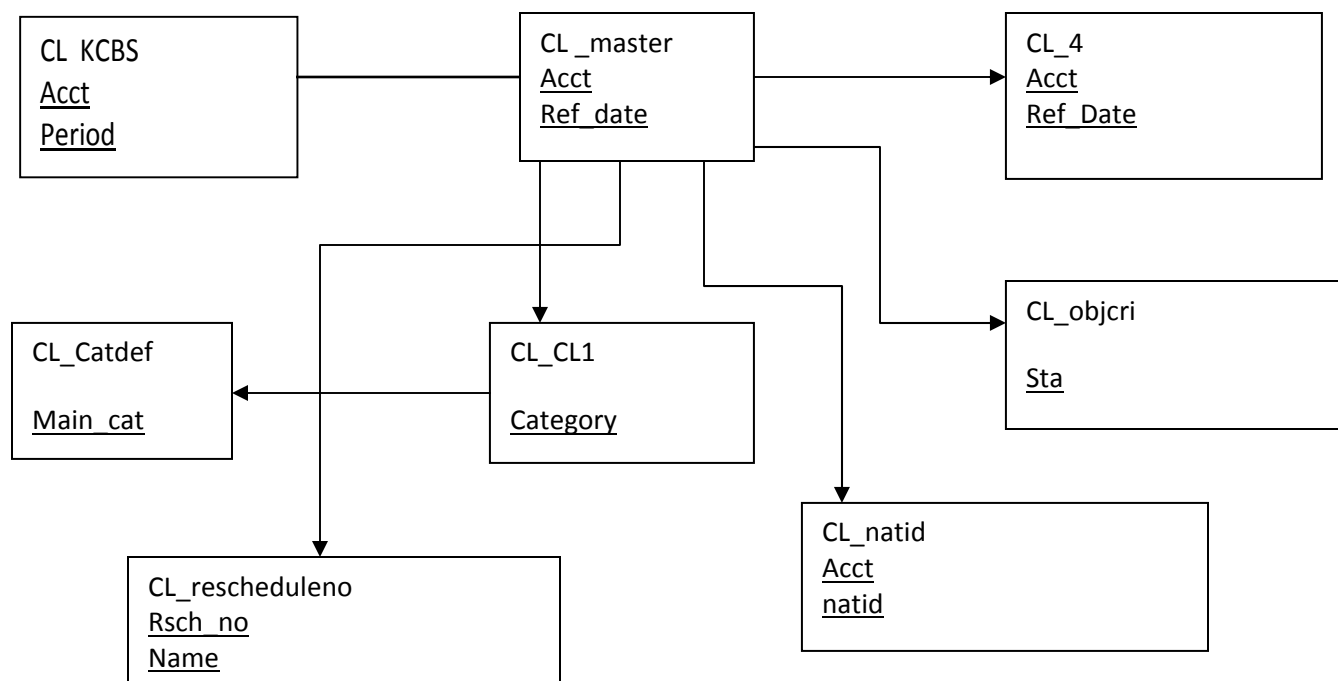
Report Design: Crystal Report 7

2.   E-R Diagram

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┌─────────────────┐        ┌─────────────────┐        ┌─────────────────┐
│  CL  KCBS       │        │  CL _master     │        │  CL_4           │
│  Acct           │────────│  Acct           │───────▶│  Acct           │
│  Period         │        │  Ref_date       │        │  Ref_Date       │
└─────────────────┘        └─────────────────┘        └─────────────────┘


                                                       ┌─────────────────┐
                                                       │  CL_objcri      │
┌─────────────────┐        ┌─────────────────┐         │                 │
│  CL_Catdef      │        │  CL_CL1         │────────▶│  Sta            │
│                 │◀───────│                 │         └─────────────────┘
│  Main_cat       │        │  Category       │
└─────────────────┘        └─────────────────┘
                                                       ┌─────────────────┐
                                                       │  CL_natid       │
                                                       │  Acct           │
          ┌─────────────────┐                          │  natid          │
          │  CL_rescheduleno│                          └─────────────────┘
          │  Rsch_no        │
          │  Name           │
          └─────────────────┘
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Fig: ER diagram

3. Data Dictionary

Column Name	ID	Pk	Null?	Data Type
ACCT	1		Y	CHAR (16)
REF_DATE	2		Y	CHAR (8)
PERIOD_AREAR_DAY	3		Y	CHAR (8)
QJ_STA	4		Y	CHAR (2)
BASE_OF_PROVISION	5		Y	CHAR (20)
INSERTEDBY	6		Y	CHAR (50)
INSERTEDDATE	7		Y	DATE
ENTRY_STA	8		Y	CHAR (2)
OB_STA	9		Y	VARCHAR2 (2)
FINAL_STA	10		Y	CHAR (2)
BRN	11		Y	CHAR (6)
CL	12		Y	CHAR (1)
CATEGORY	13		Y	CHAR (6)
SANCTION_DATE	14		Y	CHAR (8)
CNSL_VAL	15		Y	NUMBER (17,3)
SANC_AMT	16		Y	NUMBER (17,3)
GRP	17		Y	CHAR (11)
INTEREST_SUSPENSE	18		Y	NUMBER (17,3)
BASIS	19		Y	CHAR (2)
MARK	20		Y	CHAR (2)
PERIOD_AREAR_MON	21		Y	CHAR (8)
NATIONALID	22		Y	CHAR (50)
REMARKS	23		Y	CHAR (100)
BAL	24		Y	VARCHAR2 (20)
LASTUPDATEDBY	25		Y	CHAR (50)
LASTUPDATEDDATE	26		Y	DATE
RESCHEDULE_NO	27		Y	VARCHAR2 (10)
AMT_BASED_BP	28		Y	VARCHAR2 (13)
PARAM_BASED_BP	29		Y	VARCHAR2 (13)
PROVISION	30		Y	VARCHAR2 (13)

Table Name: CL_CLMASTER
Imported data and edited data are stored in this table.

Column Name	ID	Pk	Null?	Data Type
ACCT	1		Y	CHAR (16)
CIF	2		Y	CHAR (16)
BRN	3		Y	CHAR (6)
GRP	4		Y	CHAR (11)
NAME	5		Y	VARCHAR2 (150)
SANC_DATE	6		Y	CHAR (8)
RESCHEDULE_NO	7		Y	NUMBER (3)
SANC_AMT	8		Y	NUMBER (17,3)
EXPIRY_DATE	9		Y	CHAR (8)
STA	10		Y	CHAR (2)
OUTSTANDING	11		Y	NUMBER (17,3)
INTEREST_SUSPENSE	12		Y	NUMBER (17,3)
CAT	13		Y	CHAR (2)
CNSL_NO	14		Y	CHAR (16)
CNSL_VAL	15		Y	NUMBER (17,3)
INSERTEDBY	16		Y	VARCHAR2 (20)
INSERTEDDATE	17		Y	DATE
ENTRY_STA	18		Y	CHAR (2)
PERIOD	19		Y	CHAR (8)
NATIONALID	20		Y	CHAR (50)

Table Name: CL_KCBS
Data is imported to this table from Core Banking Software.

Column Name	ID	Pk	Null?	Data Type
ACCT	1		Y	CHAR (16)
TABLENAME	2		Y	VARCHAR2 (50)
FIELDNAME	3		Y	VARCHAR2 (50)
NEWFIELDVALUE	4		Y	VARCHAR2 (1000)
OLDFIELDVALUE	5		Y	VARCHAR2 (1000)
ACTIONNAME	6		Y	VARCHAR2 (250)
TXNDATE	7		Y	CHAR (100)
TXNTIME	8		Y	CHAR (10)
UPDATEDBY	9		Y	VARCHAR2 (250)
BRN	10		Y	VARCHAR2 (50)
TXDATETIME	11		Y	DATE

Table Name: CL_AUDIT_TRAIL

Used for audit purpose

Column Name	ID	Pk	Null?	Data Type
NAME	1		Y	VARCHAR2 (30)
SHRT	2		Y	VARCHAR2 (8)
STANDARD	3		Y	NUMBER (5,2)
SMA	4		Y	NUMBER (5,2)
SS	5		Y	NUMBER (5,2)
DF	6		Y	NUMBER (5,2)
BL	7		Y	NUMBER (5,2)
APPLIEDDATE	8		Y	VARCHAR2 (8)
INSERTEDBY	9		Y	VARCHAR2 (20)
INSERTEDDATE	10		Y	DATE
ENTRY_STA	11		Y	CHAR (2)

Table Name: CL_BASE_FOR_PROVISION
Used for calculation base for provision.

Column Name	ID	Pk	Null?	Data Type
PROVISION	1		Y	CHAR (20)
BAL	2		Y	CHAR (20)
INT_SUS	3		Y	CHAR (20)
BASE_PRO	4		Y	CHAR (20)
FINAL_STA	5		Y	CHAR (2)
CL	6		Y	CHAR (1)
CAT	7		Y	CHAR (20)
GRP_NAME	8		Y	CHAR (50)
BANK_NAME	9		Y	CHAR (20)
REF_DATE	10		Y	CHAR (8)
BRN_NAME	11		Y	CHAR (20)

Table Name: CL_CL1_REPORT

Column Name	ID	Pk	Null?	Data Type
MAINCAT	1		Y	CHAR (50)
CAT	2		Y	CHAR (50)

Table Name: CL_CATDEF

Column Name	ID	Pk	Null?	Data Type
GRP	1		Y	CHAR (11)
CHF	2		Y	CHAR (6)
CLP	3		Y	CHAR (6)
CAL	4		Y	CHAR (6)
CUP	5		Y	CHAR (6)
CIN	6		Y	CHAR (6)
OIN	7		Y	CHAR (6)
COF	8		Y	CHAR (6)
MIF	9		Y	CHAR (6)
SF	10		Y	CHAR (6)
MF	11		Y	CHAR (6)
LF	12		Y	CHAR (6)
APP	13		Y	CHAR (6)
AGF	14		Y	CHAR (6)
O_F	15		Y	CHAR (6)
BH	16		Y	CHAR (6)
MB	17		Y	CHAR (6)
SD	18		Y	CHAR (6)
SIN	19		Y	CHAR (6)
MC	20		Y	CHAR (6)
STAC	21		Y	CHAR (6)

Table Name: CL_CATEGORY

Column Name	ID	Pk	Null?	Data Type
CAT	1		Y	VARCHAR2 (20
SUBCAT	2		Y	VARCHAR2 (20
NAME	3		Y	VARCHAR2 (50
STD	4		Y	VARCHAR2 (5)
SMA	5		Y	VARCHAR2 (5)
SS	6		Y	VARCHAR2 (5)
DF	7		Y	VARCHAR2 (5)
BL	8		Y	VARCHAR2 (5)
STA	9		Y	CHAR (2)
APPLY_DATE	10		Y	VARCHAR2 (8)

Table Name: CL_CL1

Column Name	ID	Pk	Null?	Data Type
ACCT	1		Y	CHAR (16)
INSTALL_SIZE	2		Y	CHAR (17)
INSTALL_FREQ	3		Y	VARCHAR2 (2)
FIRST_REPAYMENT_DUE_DATE	4		Y	CHAR (8)
FIRST_REPAYMENT_DUE_PERIOD	5		Y	CHAR (8)
AMOUNT_PAID	6		Y	NUMBER (17,3)
REF_DATE	7		Y	CHAR (17)
ENTRY_STA	8		Y	CHAR (2)
AMT_PAID_TIME	9		Y	VARCHAR2 (8)
LASTUPDATEDBY	10		Y	CHAR (100)
LASTUPDATEDDATE	11		Y	DATE

Table Name: CL_CL4

Column Name	ID	Pk	Null?	Data Type
ACCT	1		Y	CHAR (16)
INSTALL_SIZE	2		Y	CHAR (17)
INSTALL_FREQ	3		Y	VARCHAR2 (2)
FIRST_REPAYMENT_DUE_DATE	4		Y	CHAR (8)
FIRST_REPAYMENT_DUE_PERIOD	5		Y	CHAR (8)
AMOUNT_PAID	6		Y	NUMBER (17,3)
REF_DATE	7		Y	CHAR (17)
ENTRY_STA	8		Y	CHAR (2)
AMT_PAID_TIME	9		Y	VARCHAR2 (8)
LASTUPDATEDBY	10		Y	CHAR (100)
LASTUPDATEDDATE	11		Y	DATE

Table Name: CL_CL4_HIST

Column Name	ID	Pk	Null?	Data Type
LOAN_GRP	1		Y	CHAR (11)
NAME	2		Y	CHAR (3)
LAST_UPDATED_BY	3		Y	VARCHAR2 (5
LAST_UPDATED_DATE	4		Y	DATE
INSERTEDBY	5		Y	VARCHAR2 (2
INSERTEDDATE	6		Y	DATE
DELETEDBY	7		Y	VARCHAR2 (2
DELETEDDATE	8		Y	DATE
ENTRY_STA	9		Y	CHAR (1)

Table Name:CL_LNPCODE

Column Name	ID	Pk	Null?	Data Type
ACCT	1		Y	CHAR (16)
NATIONALID	2		Y	CHAR (25)

Table Name: CL_NATID

Column Name	ID	Pk	Null?	Data Type
NAME	1		Y	VARCHAR2 (8)
STA	2		Y	CHAR (2)
CL2	3		Y	NUMBER (3)
D_M_FLAG2	4		Y	CHAR (1)
CL3	5		Y	NUMBER (3)
D_M_FLAG3	6		Y	CHAR (1)
CL4_BK	7		Y	VARCHAR2 (8)
D_M_FLAG4	8		Y	CHAR (1)
CL5	9		Y	VARCHAR2 (8)
D_M_FLAG5	10		Y	CHAR (1)
CL6_BK	11		Y	VARCHAR2 (8)
D_M_FLAG6	12		Y	CHAR (1)
CL4	13		Y	NUMBER (3)
CL6	14		Y	NUMBER (3)

Table Name: CL_OBJCRI

Column Name	ID	Pk	Null?	Data Type
NAME	1		Y	VARCHAR2 (20)
DES	2		Y	VARCHAR2 (4000)
SCREEN	3		Y	VARCHAR2 (20)
SCREEN_NO	4		Y	CHAR (8)

Table Name: CL_PARAM

Column Name	ID	Pk	Null?	Data Type
REF_DATE	1		Y	CHAR (8)
STA	2		Y	CHAR (2)
PREV_REF_DATE	3		Y	CHAR (8)

Table Name: CL_REFDATE

Column Name	ID	Pk	Null?	Data Type
CL_TYPE	1		Y	CHAR (1)
STA	2		Y	CHAR (2)
PERIOD	3		Y	CHAR (2)
ENTRY_STA	4		Y	CHAR (1)

Table Name: CL_PERIOD

Column Name	ID	Pk	Null?	Data Type
REPORT_PATH	1		Y	VARCHAR2 (200)
APP_PATH	2		Y	CHAR (1)

Table Name: CL_REPORTPATH

Column Name	ID	Pk	Null?	Data Type
NAME	1		Y	VARCHAR2 (50)
CODE	2		Y	VARCHAR2 (10)
STA	3		Y	VARCHAR2 (2)

Table Name: CL_RESCHEDULENO

Column Name	ID	Pk	Null?	Data Type	D
GRP	1		Y	CHAR (11)	
CL2	2		Y	CHAR (1)	
CL3	3		Y	CHAR (1)	
CL4	4		Y	CHAR (1)	
CL5	5		Y	CHAR (1)	
CL6	6		Y	CHAR (1)	
STAFF	7		Y	CHAR (1)	
STA	8		Y	CHAR (2)	

Table Name: CL_TYPE

Column Name	ID	Pk	Null?	Data Type
NAME	1		Y	VARCHAR2 (50)
STA	2		Y	CHAR (2)
ENTRY_STA	3		Y	CHAR (2)
SHORT	4		Y	VARCHAR2 (20)
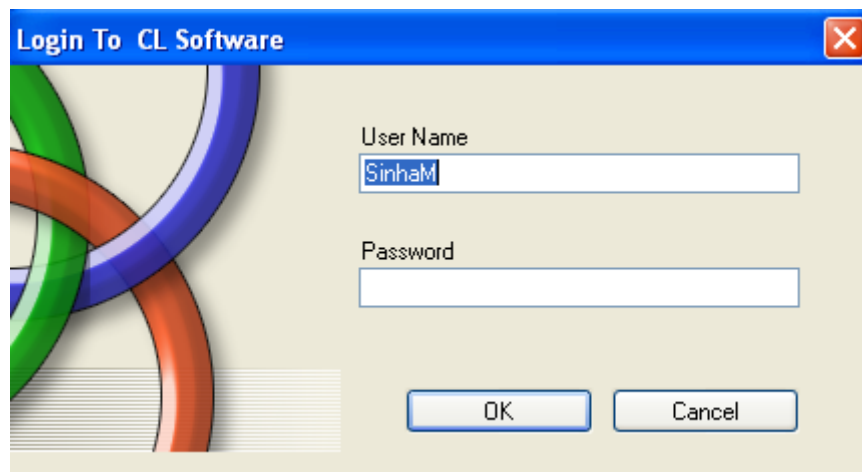
Table Name: CL_STA

Column Name	ID	Pk	Null?	Data Type
USERID	1		N	VARCHAR2 (50)
FULLNAME	2		N	VARCHAR2 (255)
PASSWD	3		N	NVARCHAR2 (255)
USERLEVEL	4		N	NUMBER (2)
APPLY_DATE	5		N	VARCHAR2 (8)
BRN	6		N	VARCHAR2 (6)
TELR	7		Y	CHAR (8)
PSWD_LST_DATE	8		Y	CHAR (8)
STATUS	9		Y	CHAR (2)
TODAY_STAT	10		Y	CHAR (1)
LOG_STAT	11		Y	NUMBER (2)
LAST_LOG_DATE	12		Y	CHAR (8)
LAST_LOG_TIME	13		Y	CHAR (8)

Table Name: CL_USERS

4.   User Login System

Following screen is used for login. CL_USERS table is used for storing user information.

5.	Definition of forms

CL2:
This form will show the account and accounts details of CL 2 type accounts. User will update information of individual account and save it for reporting purpose. Here the base of provision, final status, period of arrear and basis is calculated for each record.

CL3:
This form will show the account and accounts details of CL 3 type accounts. User will update information of individual account and save it for reporting purpose. Here the base of provision, final status, period of arrear and basis is calculated for each record.

CL4:

This form will show the account and accounts details of CL 4 type accounts. User will update information of individual account and save it for reporting purpose. Here the base of provision, final status, period of arrear and basis is calculated for each record.

CL5:

This form will show the account and accounts details of CL 5 type accounts. User will update information of individual account and save it for reporting purpose. Here the base of provision, final status, period of arrear and basis is calculated for each record.

CL6:

This form will show the account and accounts details of CL 6 type accounts. User will update information of individual account and save it for reporting purpose. Here the base of provision, final status, period of arrear and basis is calculated for each record.

CLS:

This form will show the account and accounts details of Staff Loan accounts. User will update information of individual account and save it for reporting purpose. Here the base of provision, final status, period of arrear and basis is calculated for each record.

Acctlist:

This form shows the account list to import an account to a specific CL type. Search and Add functionality for CL forms.

ChangePass:

This form is called when change password menu is clicked. To change the password 'password policy' is implemented. See cl_pwdpolicy table.

6.   Reports and Procedures

Brief technical explanations of all reports are shown below:

Report Files:

1. CL1_FULL.rpt
2. CL1_FULL_COUNT.rpt
3. CL1_THOUS.rpt
4. CL1_THOUS_COUNT.rpt
5. CL2.rpt
6. CL3.rpt
7. CL4.rpt
8. CL5.rpt
9. CL6-MC.rpt
10. CL6-STAC.rpt
11. CL6-STAFF.rpt
12. CL_CUST_CAT.rpt
13. CL_RATE_PROVISION.rpt

Report Procedures:

1. Cl_Report_Cl1
2. Cl_Report_Cl1ThousCount201206
3. Cl_Report_Cl1_Full
4. Cl_Report_Cl1_FullCount201206
5. Cl_Report_Cl1_Full_201206
6. Cl_Report_Cl1_Full_Count
7. Cl_Report_Cl1_new
8. Cl_Report_Cl1_Thous
9. Cl_Report_Cl1_Thous_201206
10. Cl_Report_Cl1_Thous_Count
11. Cl_Report_Cl2
12. Cl_Report_Cl2_New
13. Cl_Report_Cl3
14. Cl_Report_Cl4
15. Cl_Report_Cl5
16. Cl_Report_Cl6mc
17. Cl_Report_Cl6stac
18. Cl_Report_Clstaff

7. Security and Audit Trail

Security

- Password is encrypted.
- Data transferred over network by ADODB

Audit Trail

Audit trail table is maintained for auditing purpose. In case of delete or update data is inserted into CL_AUDIT_TRAIL table.

8.	Backup and Recovery

Daily full backup of the database write on the Tape every night.

9.	Version control

Released version 2.0.0