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|---|---|
| **Document Title:** | **Network Banking MIS Report Design** |
| **Document Type:** | Report Design |
| **Release** | S75 |
| **Abstract:** | This Contract Controlled document details the design of Management Information Reports that are part of the Network Banking Service. |
| **Document Status:** | Approved |
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# 0.1 Document Control

## 0.1 Document History

| Version | Date | Reason for Issue | Associated CP/ PinICL Nos. |
|---|---|---|---|
| 0.1 | 12/09/2001 | First draft | |
| 0.2 | 4/12/2001 | Second draft. Pathway document boilerplate added. Changes arising from POL review of first draft incorporated.<br>Reports re-designed to get most benefit from Business Objects. | |
| 0.3 | 14/12/2001 | Changes arising from comment from internal review. | |

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|---|---|---|---|
| 1.0 | 20/3/2002 | Un-approved baseline for first drop of code from development to System Test. | |
| 1.1 | 12/4/2002 | Changes arising from comment from external review.<br>Changes due to changes in requirements introduced by CP. | CP3208<br>CP3209<br>CP3221 |
| 1.2 | 24/05/2002 | Removal of POL Organisational Analysis Report | Removal of requirement for this Report from N05 |
| 2.0 | 12/07/2002 | Minor comments from POL applied and issued for approval.<br>Initial definitions of Value Bands and applicable Product Types add to definition of the Bank Analysis report. | |
| 2.1 | 20/10/2004 | Change to Bank analysis Report to include sub-reports for DCS chargeable and network banking transactions<br>Addition of Outlet Opening and Outlet Exceptions Report<br>Exclusion of Electronic Top Up transactions from Multiple Transactions Report<br>Addition of Transaction Response Time report | CP3431<br>CP3426<br>CP3480 |
| 2.2 | 16/11/2004 | Addition of Transactions Performed in Fallback and Transactions Performed by Method of Entry reports. | |
| 3.0 | 13/12/2004 | Issued for Approval | |

## 0.2 Approval Authorities

| Name | Position | Signature | Date |
|---|---|---|---|
| David Johns | APDU Design Manager<br>Fujitsu Services | | |
| Torstein Godeseth | Design Authority<br>Post Office Limited | | |

## 0.3 Associated Documents

| Ref. | Doc. | Vers. | Title | Author |
|---|---|---|---|---|
| REQ | NB/SPE/001 | | Network Banking, Systems Requirements Specification | T.Hayward |
| N05 | BP/CON/266 | | Codified Agreement Schedule N05 - | |

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|---|---|---|---|---|
| | | | NBS Service Management | |
| DES | TD/SDS/001 | | System Design Specification for the Network Banking Application | Gareth Jenkins |
| DAT | NB/SDS/009 | | Network Banking MIS Data Model | Steve Newman |
| VOL | NB/SRS/001 | | Systems Requirements Specification for Business Volumes | James Stinchcombe |
| AIS | NB/IFS/006 | | Pathway Data Warehouse to Post Office Ltd Application Interface Specification. | Steve Newman |
| OPS | CS/PRD/109 | | Delivery Procedure For Network Banking MIS Reports | John Moran |

Unless stated otherwise the documents referred to above are the latest approved versions.

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## 0.4 Abbreviations & Definitions

| Abbreviation | Definition |
|---|---|
| Accounting Day | A day within an Accounting Week for POL. |
| Accounting Week | Period of approx. one calendar week (Thursday to Wednesday), defined by POL for accounting purposes. A collection of Accounting Days |
| Authorising Source | A body that authorises transactions, might be a Bank but more often an agent such as LINK |
| Bank | Financial Institution that issues cards to its customers that can be used for NB Transactions. N.B. Bank is a specialisation of the POL Client entity. |
| Confirmed Amount | Amount confirmed in C2 message. Zero if transaction fails, is declined, or is balance enquiry |
| DWh | Data Warehouse. |
| End Date | Identifies the end of a period of time (Date and Time) |
| FAD Code | A structured code to identify an outlet or a satellite as a cash accounting unit. |
| Financial Institution | A privately owned entity that collects funds from the public. |
| Issuer Scheme | Classification of a group of types of cards issued by a Bank |
| Issuer Scheme ID | Unique (POL) system generated code identifying an Issuer Scheme |
| Money Laundering Threshold | A cut off value below which 'Cash Deposit' transactions are not likely to be of interest from a money laundering perspective. |
| Month | A calendar month |
| NB | Network Banking |
| NB Transaction | Record of an attempted Network Banking Transaction, regardless of its *Outcome* |
| NBE | Network Banking Engine |
| NBS | Network Banking Service |
| Outcome | Classification of the result of a *NB Transaction* |
| Outcome Code | Unique code indicating the *Outcome* of a Transaction. |
| Transaction Result | Classification of *Outcome*, e.g. 'Transaction Completed OK', 'Abandoned by Clerk', 'Decline Confirmed', 'Transaction Failed' |
| Transaction Result Code | Unique code indicating the *Transaction Result* of a NB Transaction. |
| Outlet | Place where Horizon system is installed for conducting transactions with the general public |
| PAN | Primary Account Number |
| Posting Date | The date of the last complete POL Trading Day (ending at 19:00) preceding the harvesting run producing the Transmission Files in which the transactions were sent to TIP and the DWh. |
| POL | Post Office Limited |
| Product | Classification of *NB Transaction* identifying the combination of Product Type and Bank |
| Product Code | Identifies a POCL Product |
| Product Type | A classification of *Product*, e.g. 'Cash Withdrawal', 'Cash Deposit', 'Balance Enquiry', etc. Equivalent to Item Type in POLs logical data model. |
| Product Type ID | Unique (POL) system generated code identifying an Product Type, e.g. Cash Withdrawal, Cash Deposit, etc. |

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| | |
|---|---|
| RDMC | Reference Data Management Centre |
| Settlement Date | The date of a *NB Transaction* for settlement purposes, determined by *Authorising Source* |
| Start Date | Identifies the Start of a period of time (Date and Time) |
| TPS | Transaction Processing System. Fujitsu Services application that collects transaction data from Outlets and forwards it to POL. |
| Trading Date | Date identifying a period of approximately one calendar day that is the interval between two End of Day markers written at Outlets at a time determined by reference data. |
| Receipt Date | The local date and time of a transaction as recorded on the receipt. |
| Transaction Value | Measure (sum) of the confirmed value of transactions in a collection. |
| Transaction Volume | Measure (count) of volume of transactions in a collection |
| User Name | User Name entered by Clerk at logon |

## 0.5 Changes in This Version

### 0.5.1 Changes Expected

None

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# 1 Introduction

Fujitsu Services's Data Warehouse (DWh) will be used to provide all Management Information reports. These are characterised by the use to which they are put and the timeliness in which they need to be produced. A management information report is used to inform strategic decision making rather than day-to-day operational decisions. Usually the reports are produced some time after the fact and report on events that took place over a period of days, weeks and months, or even years, rather than hours.

# 2 Requirements

These reports do not support contractual service levels but are provided for the use of POL to support the management of their business. This is a new service to POL.

Five Trend Analysis reports are required:

- Transaction Outcome by Outlet
- Bank Analysis
- Outlet Opening
- P.O. Opening Exceptions
- Transaction Response Time

# 3 Method of Distribution

Pathway's Management Support Unit will refresh each report shortly after the period covered by the report has ended. This will create a new Business Objects report file for each report. These files will be made available to Post Office Limited , for example by CD-ROM or by placing them on a server to which they have access. The method of delivery will be specified in Delivery Procedure for Network Banking MIS Reports (CS/PRD/109) [OPS].
Once a week the new Business Objects report files for the Transaction Outcome by Outlet and Bank Analysis will be delivered to POL.
The Bank Analysis report will normally be delivered to POL on the working day following the end of the reporting period. Other reports will normally be delivered to POL within five working days after the end of the reporting period.
Post Office Limited will need to provide one or more Windows NT Workstations running BusinessObjects 5.1 to view, print and manipulate the reports provided.

# 4 Design

This section describes the format and content of the Network Banking MIS reports as they will be delivered. It also shows some examples of how the reports can be customised by the user to meet his or her own individual requirements.
This document follows BusinessObjects convention of considering attributes of objects as either Dimensions or Measures. Dimensions are attributes by which it is possible to specify what is being reported. They determine things like **What** happened, **When** something happened, **Where** something happened. It is not normal to perform arithmetic on dimensions. Measures are quantitive attributes like how many or how much. Arithmetic is routinely performed on Measures.

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## 4.1 Principles

The following conventions will be applied to all reports unless there is a specific requirement otherwise. Reports will:

- Cover a single instance of a period of time defined in either the Calendar or Accounting Calendar hierarchies.
- Be delivered as Business Objects report files.
- Use Arial font sized at 10 point or above.
- Be able to be printed full width on normal A4 paper either landscape or portrait.
- Column widths must, wherever possible be large enough to display the longest data item without truncation or text wrapping.
- Have a repeating page header that contains the report title, date last refreshed, the period of time covered, and any text required to show the values of any selection criteria used.
  - Where the scope of a report is a *Month* the page header will display the *Month Name* and *Year* in a single field. e.g. August 2001.
  - Where the scope of a report is an *Accounting Week* the page header will display *Accounting Week ID*, *Accounting Period Id*, and *Financial Year* in a single field separated by " / ". e.g. "4 / 5 / 2000" which represents the fourth *Accounting Week* in the Fifth *Accounting Period* in the *Financial Year* that began in *Year* 2000.
- Have a repeating page footer that contains page number in Page n of nn format.
- Object descriptions or names are displayed in preference to codes. N.B. The data providers must include codes so that they are available to users.
- Dates are displayed in DD-Mmm-YY format, left justified.
- Times of events are displayed in hh24:mm:ss format, left justified.
- Times, which are measurements of intervals between events, are displayed in ss.mmm, i.e. seconds and milliseconds.
- Currency amounts are displayed in £#,##0.00 format, right justified.
- Transaction volumes are displayed in #,##0 format, right justified.

## 4.2 Dates

Requirements have been identified to use four dates:

- **Receipt Date** - Calendar Date (and Local Time) when the transaction was recorded. *Receipt Date* will be used for any reports where the details of individual transactions are required.

- **Trading Date** - Identifies *Trading Day*. This is the unit by which the Transaction Processing Service packages transactions for delivery to both TIP and the Data Warehouse. The Data Warehouse will maintain aggregates with Trading Day granularity and this will be the default unit of aggregation for all MIS reports.

- **Settlement Date** - The requirement for the Bank Analysis report explicitly states that *Settlement Date*, which is determined by the *Authorising Source,* is to be used. This attribute will be included in the data passed from TPS to DWh.

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- **Posting Date** - This is the date that transactions were posted to the Data Warehouse. It is the date of the *Trading Day* that ended immediately prior to the transactions being harvested by TPS for delivery to TIP.

## 4.3 Hierarchies

Business Objects is a powerful user tool for manipulating data. A full description of the facilities it provides is beyond the scope of this document. Some features however depend on the end users use of them being anticipated and catered for by the designer. This is particularly true when considering the different levels of detail, or abstraction, that a user might require. There are two basic ways to do this:

**Drilling**: This is where the user is interested in looking in more detail at a subset of data from a report. e.g. A user looking at a report showing volumes of transactions by *Bank* and wishes to see how a *Bank's* transactions are distributed by the *Bank*'s *Issuer Schemes.* By selecting the 'Drill' control, the *Bank* Dimension, and the 'drill down' option a new version of the report is displayed showing only the selected *Bank*'s transactions broken down by it's *Issuer Schemes.* Both the scope and the level of abstraction of the report are changed. This facility depends on hierarchies being defined and made available in reports.

**Dimension Swapping:** This is where a user is interested at looking at a report at a different level of abstraction. e.g. A user is looking at a report showing the volume of Network Banking Transactions by Territory and wishes to look at the same data by Head of Area. By 'dragging' the Head of Area dimension from the Report Manager section of the report and 'dropping' it over the 'Territory' dimension in the report body these dimensions are swapped. The report will change to show the volume of Network Banking Transactions by Head of Area. Changing the dimensions used in a report only changes the level of abstraction and cannot be used to change the scope.

Business Objects is a complex tool and it is possible to manipulate reports in many ways. It is not possible make reports foolproof without removing all the flexibility available. Drilling up and down predefined hierarchies, and swapping a reported dimension for another in the same hierarchy, will be supported.

To support this a number hierarchies have been defined for Network Banking MIS reports. It should be noted that while hierarchies can add greatly to the usefulness of Business Objects reports they are not cost free. The cost comes in three forms 1) The length of time it takes to regenerate reports increases, 2) The size of delivered files increases, 3)The time taken to display the results of changes made to the report by the user increases, reducing its responsiveness. If it is found that any of these is unacceptable in use then consideration should be given to reducing the use of hierarchies.

The convention used in this document for defining hierarchies is top (or most abstract, least detail) to bottom (or least abstract, most detail). Unless restricted by the scope of the report the user will be allowed to navigate both up and down hierarchies.

The following hierarchies are defined:

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| Hierarchy: SLA Calendar | Dimension |
|---|---|
| Level 1 | SLA Year |
| Level 2 | SLA Quarter |
| Level 3 | Month |
| Level 4 | Trading Day |

| Hierarchy: Accounting Calendar | Dimension |
|---|---|
| Level 1 | Financial Year |
| Level 2 | Accounting Period |
| Level 3 | Accounting Week |
| Level 4 | Accounting Day |

| Hierarchy: Settlement Calendar | Dimension |
|---|---|
| Level 1 | Financial Year |
| Level 2 | Accounting Period |
| Level 3 | Accounting Week |
| Level 4 | Settlement Date |

| Hierarchy: Bank | Dimension |
|---|---|
| Level 1 | Bank |
| Level 2 | Issuer Scheme |

| Hierarchy: Product | Dimension |
|---|---|
| Level 1 | Product Type |
| Level 2 | Product |

| Hierarchy: Outcome | Dimension |
|---|---|
| Level 1 | Transaction Result |
| Level 2 | Outcome |

## 4.4 Report Design

The design of each report will be expressed in terms of the entities and attributes in [DAT]. For convenience brief descriptions of the entities and attributes employed are reproduced in Section 0.4 Abbreviations and Definitions.

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### 4.4.1 Transaction Outcome Analysis by Outlet

This weekly report [R258] shows a summary of the Network Banking transactions performed in each *Outlet*. The scope of this report will be an *Accounting Week*.
For each *Outlet* there will be one row, showing *Transaction Volume* and *Transaction Value*, for each combination of *Product* and *Outcome*. The sort sequence for this report will be ascending *FAD Code*, *Product* and *Outcome*. Page breaks will be inserted to ensure that each *Outlet* starts on a new page.

Rules:
1. *Trading Date* between *Accounting Week.Start Date* and *Accounting Week.End Date*.

Measures:
- *Transaction Volume*
- *Transaction Value*

Dimensions:
- *Outlet*
- *FAD Code*
- *Accounting Week*
- *Product*
- *Outcome*
- *Method of Entry*

Other Details Available:
- *Outlet ID*
- *Product Code*
- *Outcome Code*

Hierarchies:
- This is a very large report that is required to show a great deal of detail. No drilling down is possible but drilling up in the Product and Outcome hierarchies will be supported.

### 4.4.2 Bank Analysis

A weekly report showing, for each Bank, the daily count and sum of *Confirmed Amount* of Network Banking system transactions. [R261]. Network Banking system transactions will include DCS and E-Top Up transactions

Each page will, in addition to the standard page header items, show the date of latest *Posting Date* posted by the Data Warehouse at the time the report was produced (or refreshed). This is included to indicate to the user that the Data Warehouse had posted transactions for each *Posting Date* within the *Accounting Week*.

The scope of this report a week will be an *Accounting Week*. A single report will be produced each week containing all *Banks*.

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Each *Bank* will start on a new page, and within *Bank* there will be separate sections for each *Issuer Scheme*.

Within *Issuer Scheme* there will be one row for each combination of *Posting Date*, *Settlement Date*, *Product Type Value Band* and *Transaction Result* recorded during the reporting period.

The sort sequence for the report will ascending *Bank*, *Issuer Scheme*, *Posting Date*, *Settlement Date*, *Product Type Value Band* and *Transaction Result.*

N.B. Value Bands and the Product Types that they apply to are soft configured. The initial configuration will be that specified in "Codified Agreement Schedule N05 - Service Management" [N05], section 6.1.2. i.e. For each of the Product Types “Cash Withdrawal”, “Cash Withdrawal with Balance” and “Cash Deposit” there shall be three value bands. The three value bands will be: (i) zero value transactions; (ii) transactions of greater than zero that are less than or equal to £250; and (iii) greater than £250.

Rules:

1. *Posting Date* between *Accounting Week.Start Date* and *Accounting Week.End Date*.

Additional sub-reports have been added to this report to report on:-

Chargeable DCS Transactions - Showing only those DCS transactions defined to be chargeable on the basis of their outcome code as specified in CR 0339.

Network Banking Transactions - Showing only NBS transactions

These are filtered versions of the main report.

Measures:

- *Transaction Volume*
- *Transaction Value*

Dimensions:

- *Bank*
- *Issuer Scheme*
- *Posting Date*
- *Settlement Date*
- *Product Type Value Band*
- *Transaction Result*
- *Method of Entry*

Other Details Available:

- *Bank ID*
- *Issuer Scheme ID*
- *Product Type ID*

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- *Product Type*
- *Value Band*
- *Value Band ID*
- *Transaction Result Code*
- *Issuer Scheme*
- *Issuer Scheme ID*
- *Product*
- *Product Code*
- *Outcome*
- *Outcome Code*

Hierarchies:
- Settlement Date (up only)
- Bank
- Product
- Outcome

### 4.4.3 Outlet Opening Report

A report normally run monthly showing for each trading date in a selectable time period the count of outlets expected to be open, the count of outlets trading, the count of outlets expected to be open but not trading and the count of outlets expected to be closed but trading.

Measures
- Count of Outlets Expected to be Open
- Count of Outlets Trading
- Count of Outlets Expected to be open but NOT Trading
- Count of Outlets Expected to be closed but Trading

Dimensions
- Trading Date
- Day of Week or Bank Holiday

Rules
1. *Trading Date between Start Trading Date and End Trading Date*

### 4.4.4 P.O.Opening Exceptions Report

A report run for a selectable period, normally a month, showing for given days the outlets which were expected to be open but did not trade.

The sort sequence will be by trading date and then by FAD Code

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Data
- Trading date
- FAD Code
- Outlet Name

Rule
*1. Trading Date between Start Trading Date and End Trading Date*

### 4.4.5 Transaction Response Time Report

A report to be run monthly showing details for the peak hour only per FI per week within the month as follows:-

1. The 90th percentile and mean transaction response time for the Financial Institution (FI) portion of the total transaction time. Additional or alternate percentages may be required on this report.
2. Per branch connection type, the 90th percentile and mean transaction response time for the Horizon portion of the total transaction time. Additional or alternate percentages may be required on this report.
3. Per branch connection type, the 90th percentile and mean transaction response time for the total transaction time. Additional or alternate percentages may be required on this report.
4. Per branch connection type, the total transaction volumes within the hour specified.

**Notes:**

1. The 'peak hour' will be a specified time period, and we will not need to run a query to find the hour with the highest number of transactions.
2. There may be more than one hour specified for each FI for each week, and the hour specified may be different for the three different FI's (Link, Alliance and Leicester, and CAPO).
3. These time periods will be set and changed by a DCR. This would need to be done on a month boundary in order that the monthly report should contain consistent data.
4. The 'hour' will be a specified elapsed hour, and these time periods may be longer or shorter than an hour.
5. Only Network Banking transactions which are successful will be included. Successful is determined as specified in the outcome table as defined in NB/SDS/009 which represents full successful message transfer.
6. No additional data (e.g. value) will be required in this report, only times and volumes as specified.
7. The time taken as the time for the transaction will be the start time of the transaction.

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8. The week reported on will be the standard reporting week of Sunday to Saturday. The actual report
9. Maximum transaction volumes in a peak hour for all three FI's is 700,000.
10. POL might want to choose additional percentiles – e.g. 99%
11. The mean is defined as the 50th percentile – i.e. the time for the transaction which represents the top of the first half of the transactions ordered by the relevant transaction response time.
12. In order to allow for bank holidays it is likely that there will be a requirement to report peak hours for both Monday and Tuesday.

### 4.4.6 Banking and DCS Transactions Performed in Fallback

A new report "Banking and DCS Transactions Performed in Fallback" will be produced.

1. The report will show details selected by trading date for a week and runable for any selectable week.
2. The report will show, for each of NBS and DCS, the FAD Code and Post Office Name, the number of transactions performed in fallback (entry_method = 3) and the percentage of the total number of similar types of transactions (NBS or DCS) at that branch or for that issuer scheme as appropriate for the selected week.
3. An additional sheet on each of NBS and DCS reports will show, Issuer Scheme and description, the number of transactions performed in fallback (entry_method = 3) and the percentage of the total number of similar types of transactions (NBS or DCS) at that branch for the selected week.
4. A total of transactions and the percentage that represents of the total transactions of that type will appear at the bottom.
5. There will be four tabs or separate sheets on the report, two for Network Banking transactions and two for DCS transactions. These will show the same transaction data by FAD code on one and by Issuer Scheme on the other.
6. Approximate sample layouts of this report are attached hereunder.
7. The file name for this report will be:
   Banking_and_DCS_Transactions_Performed_in_Fallback_dd/mm/yy_Vx.rep
   where dd/mm/yy represents the date and x the version number.
8. This report will normally be delivered on Thursdays.

### 4.4.7 Card Account Transactions by Method of Entry

A new report "Card Account Transactions by Method of Entry" will be produced.

1. The report will show details selected by trading date for a month and be runable for a selectable month.
2. The report will have details of Card Account (CAPO) transactions as follows.
3. The report will contain two sections

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4. Section 1 will show the total number of outlets which undertook at least one CAPO transaction using chip entry – i.e. Method of Entry 4 - ICC PIN Pad Read. - for each week in the period.
5. Section 2 will show for all outlets which performed CAPO transactions but did not do any by chip entry, for each FAD the Post Office Name, the total number of transactions and the number of transactions for each method of entry. By definition the number performed by method of entry ICC PIN Pad Read (chip) will always be 0, but I am leaving this in as it was requested, and it might prove useful in the future.
6. This will be sorted in FAD code order.
7. The report name for this report will be:
   Card_Account_Transactions_by_Method_of_Entry_dd/mm/yy_Vx.rep
   where dd/mm/yy represents the date and x the version number.
8. This report will normally be delivered on the fifth working day after the end of the month.

## *4.5 Report Layouts*

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### 4.5.1 Transaction Outcome Analysis by Outlet

## Outcome Analysis

Last Refreshed: 25-Aug-01 11:19:26

**FAD Code : FAD 38** **Outlet 1**

**Accounting Week: 3 / 6 / 2001**

**Accounting Week End Date: 22-Aug-01**

| Product Desc | Outcome | Method of Entry | Transaction Volume | Transaction Value |
|---|---|---|---|---|
| Barclays Deposit Cash | Completed OK | Manual Entry | 16 | £685.00 |
| Barclays Deposit Cash | Completed OK | Non ICC Magnetic Stripe Read | | |
| Barclays Deposit Cash | Completed OK | ICC Swipe Fallback | | |
| Barclays Deposit Cash | Completed OK | ICC PIN Pad Read | | |
| Barclays Deposit Cash | Decl - Usage Violation - amt | ICC PIN Pad Read | 2 | £0.00 |
| Barclays Deposit Cash | Failed by Agent Inside ICL-P | ICC PIN Pad Read | 4 | £0.00 |
| Barclays Withdraw Cash | Completed OK | ICC PIN Pad Read | 4 | £180.00 |
| Barclays Withdraw Cash | Failed By NBE | ICC PIN Pad Read | 5 | £0.00 |
| NatWest Bank Balance Enquiry | Completed OK | ICC PIN Pad Read | 4 | £0.00 |
| NatWest Bank Balance Enquiry | Decline - Impound Card | ICC PIN Pad Read | 6 | £0.00 |
| NatWest Bank Balance Enquiry | Decl - Trans not supported | ICC PIN Pad Read | 5 | £0.00 |
| NatWest Bank Balance Enquiry | Decl - Usage Violation - amt | ICC PIN Pad Read | 9 | £0.00 |
| NatWest Bank Balance Enquiry | Failed by Agent Inside ICL-P | ICC PIN Pad Read | 5 | £0.00 |
| NatWest Bank Deposit Cash | Abandoned - APACS checks | ICC PIN Pad Read | 9 | £0.00 |
| NatWest Bank Deposit Cash | Decline - Impound Card | ICC PIN Pad Read | 8 | £0.00 |
| NatWest Bank Deposit Cash | Failed by Agent Inside ICL-P | ICC PIN Pad Read | 5 | £0.00 |
| NatWest Bank Deposit Cash | Failed by Agent Outside ICL-P | ICC PIN Pad Read | 6 | £0.00 |
| NatWest Bank Withdraw Cash | Abandoned - Clerk | ICC PIN Pad Read | 10 | £0.00 |
| NatWest Bank Withdraw Cash | Completed OK | ICC PIN Pad Read | 9 | £450.00 |
| Unv. Bank Balance Enquiry | Abandoned - Signature failed | ICC PIN Pad Read | 6 | £0.00 |
| Unv. Bank Balance Enquiry | Decline - Insufficient Funds | ICC PIN Pad Read | 3 | £0.00 |
| Unv Bank Take All | Decline - Insufficient Funds | ICC PIN Pad Read | 9 | £0.00 |
| Unv Bank Take All | Decl - Trans not supported | ICC PIN Pad Read | 7 | £0.00 |
| Unv Bank Take All With Balance | Decl - Usage Violation - freq | ICC PIN Pad Read | 2 | £0.00 |
| Unv Bank Take All With Balance | Failed by Agent Inside ICL-P | ICC PIN Pad Read | 9 | £0.00 |

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### 4.5.2 Bank Analysis

**Bank Analysis** — Last Refreshed: 23-Aug-02 09:43:01
**Accounting Week: 3 / 6 / 2002** — Last date posted: 22-Aug-02
**Bank: Barclays Bank Limited** — From: 15-Aug-02
**Scheme: Scheme A** — To: 21-Aug-02

| Posting Date | Settlement Date | Product Type | Transaction Result | Transaction Volume | Transaction Value |
|---|---|---|---|---|---|
| 15-Aug-02 | 13-Aug-02 | Withdraw Cash <= £250 | Transaction Completed OK | 824 | £99,591.00 |
| 15-Aug-02 | 14-Aug-02 | Withdraw Cash <= £250 | Transaction Completed OK | 2,753 | £537,747.00 |
| 15-Aug-02 | 15-Aug-02 | Withdraw Cash <= £250 | Transaction Completed OK | 183,069 | £13,058,799.00 |
| 16-Aug-02 | 06-Aug-02 | Withdraw Cash <= £250 | Transaction Completed OK | 1 | £267.00 |
| 16-Aug-02 | 14-Aug-02 | Withdraw Cash <= £250 | Transaction Completed OK | 285 | £52,775.00 |
| 16-Aug-02 | 15-Aug-02 | Withdraw Cash <= £250 | Transaction Completed OK | 3,904 | £951,719.00 |
| 16-Aug-02 | 16-Aug-02 | Withdraw Cash <= £250 | Transaction Completed OK | 232,927 | £38,630,053.00 |
| 16-Aug-02 | 17-Aug-02 | Withdraw Cash <= £250 | Transaction Completed OK | 2 | £431.00 |
| 21-Aug-02 | 21-Aug-02 | Withdraw Cash <= £250 | Transaction Completed OK | 171,108 | £11,843,895.00 |
| | | | Sum: | 1,784,622 | £195,525,831.00 |

**Bank Analysis** — Last Refreshed: 23-Aug-02 09:43:01
**Accounting Week: 3 / 6 / 2002** — Last date posted: 22-Aug-02
**Bank: Barclays Bank Limited** — From: 15-Aug-02
**Scheme: Scheme B** — To: 21-Aug-02

| Posting Date | Settlement Date | Product Type | Transaction Result | Transaction Volume | Transaction Value |
|---|---|---|---|---|---|
| 15-Aug-02 | 15-Aug-02 | Balance Enquiry | Transaction Completed OK | 53,468 | £0.00 |
| 15-Aug-02 | 15-Aug-02 | Cash Withdrawal - zero value | Decline Confirmed | 4,362 | £0.00 |
| 15-Aug-02 | 15-Aug-02 | Cash Withdrawal <= £250 | Transaction Completed OK | 102,223 | £15,035,413.00 |
| 15-Aug-02 | 15-Aug-02 | Cash Withdrawal > £250 | Transaction Completed OK | 616 | £433,557.00 |
| 15-Aug-02 | 15-Aug-02 | Cash Withdrawal with Balance - zero value | Transaction Failed | 23 | £0.00 |
| 15-Aug-02 | 15-Aug-02 | Cash Withdrawal with Balance <= £250 | Transaction Completed OK | 54,433 | £563,401.00 |
| 15-Aug-02 | 15-Aug-02 | Cash Withdrawal with Balance > £250 | Transaction Completed OK | 2,206 | £802,728.00 |
| 21-Aug-02 | 21-Aug-02 | Cash Withdrawal with Balance > £250 | Transaction Completed OK | 95 | £65,412.00 |
| 21-Aug-02 | 21-Aug-02 | Change PIN | Transaction Completed OK | 883 | £0.00 |
| 21-Aug-02 | 21-Aug-02 | Withdrawal Limit | Transaction Completed OK | 8,439 | £155,232.94 |
| | | | Sum: | 680,244 | £51,167,231.82 |

**Bank Analysis** — Last Refreshed: 23-Aug-02 09:43:01
**Accounting Week: 3 / 6 / 2002** — Last date posted: 22-Aug-02
**Bank: Barclays Bank Limited** — From: 15-Aug-02
**Scheme: Scheme C** — To: 21-Aug-02

| Posting Date | Settlement Date | Product Type | Transaction Result | Transaction Volume | Transaction Value |
|---|---|---|---|---|---|
| 16-Aug-02 | 16-Aug-02 | Balance Enquiry | Transaction Completed OK | 37,781 | £0.00 |
| 16-Aug-02 | 16-Aug-02 | Balance Enquiry | Transaction Abandoned by Clerk | 582 | £0.00 |
| 21-Aug-02 | 21-Aug-02 | Withdrawal Limit | Signature Fail | 26 | £0.00 |
| 21-Aug-02 | 21-Aug-02 | Withdrawal Limit | Fee Declined | 3 | £0.00 |
| 21-Aug-02 | 21-Aug-02 | Withdrawal Limit | Card Check Failed | 1 | £0.00 |
| 21-Aug-02 | 21-Aug-02 | Withdrawal Limit | Decline Confirmed | 182 | £0.00 |
| 21-Aug-02 | 21-Aug-02 | Withdrawal Limit | Transaction Failed | 116 | £0.00 |
| | | | Sum: | 116,073 | £0.00 |

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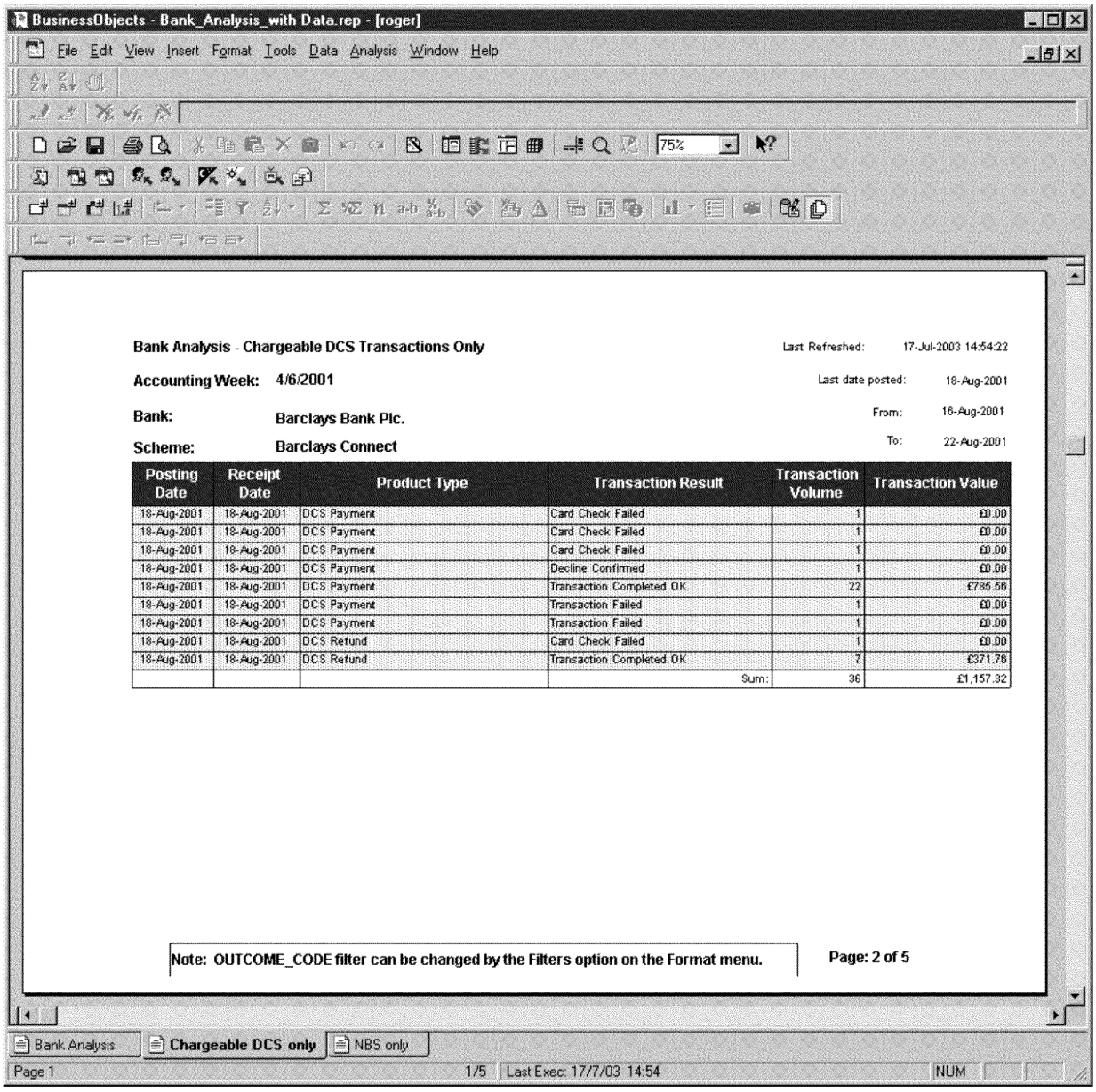
Bank Analysis Chargeable DCS Transactions Only




| Posting Date | Receipt Date | Product Type | Transaction Result | Transaction Volume | Transaction Value |
|---|---|---|---|---|---|
| 18-Aug-2001 | 18-Aug-2001 | DCS Payment | Card Check Failed | 1 | £0.00 |
| 18-Aug-2001 | 18-Aug-2001 | DCS Payment | Card Check Failed | 1 | £0.00 |
| 18-Aug-2001 | 18-Aug-2001 | DCS Payment | Card Check Failed | 1 | £0.00 |
| 18-Aug-2001 | 18-Aug-2001 | DCS Payment | Decline Confirmed | 1 | £0.00 |
| 18-Aug-2001 | 18-Aug-2001 | DCS Payment | Transaction Completed OK | 22 | £786.56 |
| 18-Aug-2001 | 18-Aug-2001 | DCS Payment | Transaction Failed | 1 | £0.00 |
| 18-Aug-2001 | 18-Aug-2001 | DCS Payment | Transaction Failed | 1 | £0.00 |
| 18-Aug-2001 | 18-Aug-2001 | DCS Refund | Card Check Failed | 1 | £0.00 |
| 18-Aug-2001 | 18-Aug-2001 | DCS Refund | Transaction Completed OK | 7 | £371.76 |
| | | | Sum: | 36 | £1,157.32 |

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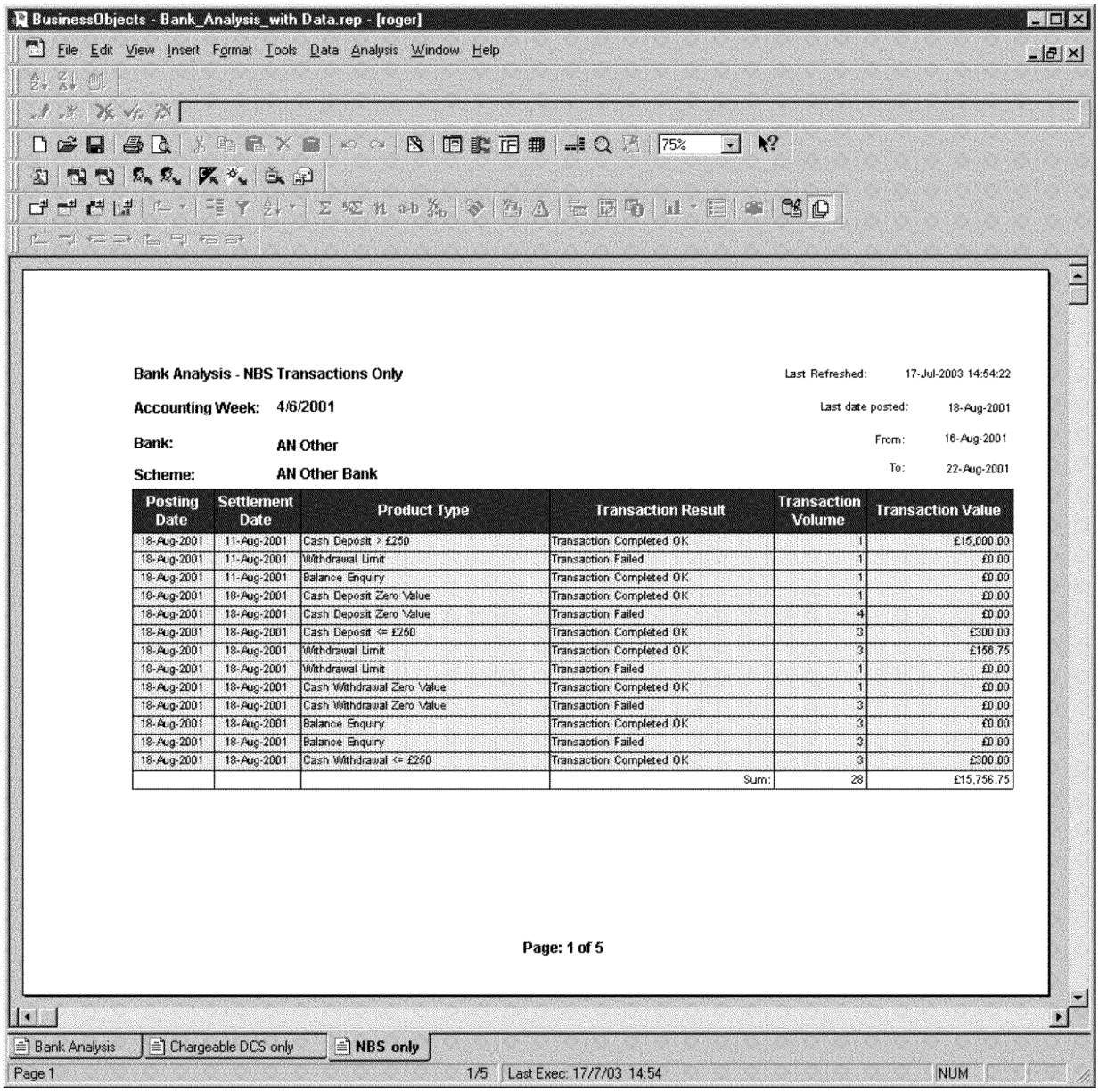
Bank Analysis Report – NBS Transactions Only




**Bank Analysis - NBS Transactions Only**

Last Refreshed: 17-Jul-2003 14:54:22

**Accounting Week:** 4/6/2001

Last date posted: 18-Aug-2001

**Bank:** AN Other

From: 16-Aug-2001

**Scheme:** AN Other Bank

To: 22-Aug-2001

| Posting Date | Settlement Date | Product Type | Transaction Result | Transaction Volume | Transaction Value |
|---|---|---|---|---|---|
| 18-Aug-2001 | 11-Aug-2001 | Cash Deposit > £250 | Transaction Completed OK | 1 | £15,000.00 |
| 18-Aug-2001 | 11-Aug-2001 | Withdrawal Limit | Transaction Failed | 1 | £0.00 |
| 18-Aug-2001 | 11-Aug-2001 | Balance Enquiry | Transaction Completed OK | 1 | £0.00 |
| 18-Aug-2001 | 18-Aug-2001 | Cash Deposit Zero Value | Transaction Completed OK | 1 | £0.00 |
| 18-Aug-2001 | 18-Aug-2001 | Cash Deposit Zero Value | Transaction Failed | 4 | £0.00 |
| 18-Aug-2001 | 18-Aug-2001 | Cash Deposit <= £250 | Transaction Completed OK | 3 | £300.00 |
| 18-Aug-2001 | 18-Aug-2001 | Withdrawal Limit | Transaction Completed OK | 3 | £156.75 |
| 18-Aug-2001 | 18-Aug-2001 | Withdrawal Limit | Transaction Failed | 1 | £0.00 |
| 18-Aug-2001 | 18-Aug-2001 | Cash Withdrawal Zero Value | Transaction Completed OK | 1 | £0.00 |
| 18-Aug-2001 | 18-Aug-2001 | Cash Withdrawal Zero Value | Transaction Failed | 3 | £0.00 |
| 18-Aug-2001 | 18-Aug-2001 | Balance Enquiry | Transaction Completed OK | 3 | £0.00 |
| 18-Aug-2001 | 18-Aug-2001 | Balance Enquiry | Transaction Failed | 3 | £0.00 |
| 18-Aug-2001 | 18-Aug-2001 | Cash Withdrawal <= £250 | Transaction Completed OK | 3 | £300.00 |
| | | | Sum: | 28 | £15,756.75 |

**Page: 1 of 5**

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### 4.5.3 Outlet Opening Report

## OUTLET OPENING REPORT

| Report Date | Report Filename |
|---|---|
| 11/07/2003 | PO Openings |

| Trading Date | Day or Bank Holiday | Count of Outlets expected to be open | Count of Outlets trading | Count of Outlets expected to be open but NOTtrading | Count of Outlets expected to be closed but trading |
|---|---|---|---|---|---|
| 8/7/03 | Tuesday | 18132 | 16523 | 1698 | 89 |
| 9/7/03 | Wednesday | 17375 | 16298 | 1444 | 367 |
| 10/7/03 | Thursday | 18390 | 0 | 18390 | 0 |

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### 4.5.4 P.O. Opening Exceptions Report

## PO OPENING EXCEPTIONS REPORT

| Report Date | Report Filename |
|---|---|
| 03/05/2003 | PO Exceptions |

**Outlets expected to be open but which did not trade**

| Trading Date | Fad Code | Outlet Name |
|---|---|---|
| 30/4/03 | 002001X | Balham |
| 30/4/03 | 0020044 | Crouch End |
| 30/4/03 | 0020060 | Acton |
| 30/4/03 | 0020079 | Abbey Wood |
| 30/4/03 | 0020095 | Albemarle Street |
| 30/4/03 | 0020109 | Marchmont Street |
| 30/4/03 | 0020117 | Eccleston Street |
| 30/4/03 | 0020125 | Beckenham |
| 30/4/03 | 0020141 | Dartford |
| 30/4/03 | 0021121 | Thetford |
| 30/4/03 | 002113X | Haverhill |
| 30/4/03 | 002130X | Felixstowe |
| 30/4/03 | 0022012 | Acocks Green |
| 30/4/03 | 0022063 | Crewe Town |
| 30/4/03 | 0022071 | Alfreton |
| 30/4/03 | 0022268 | Daventry |

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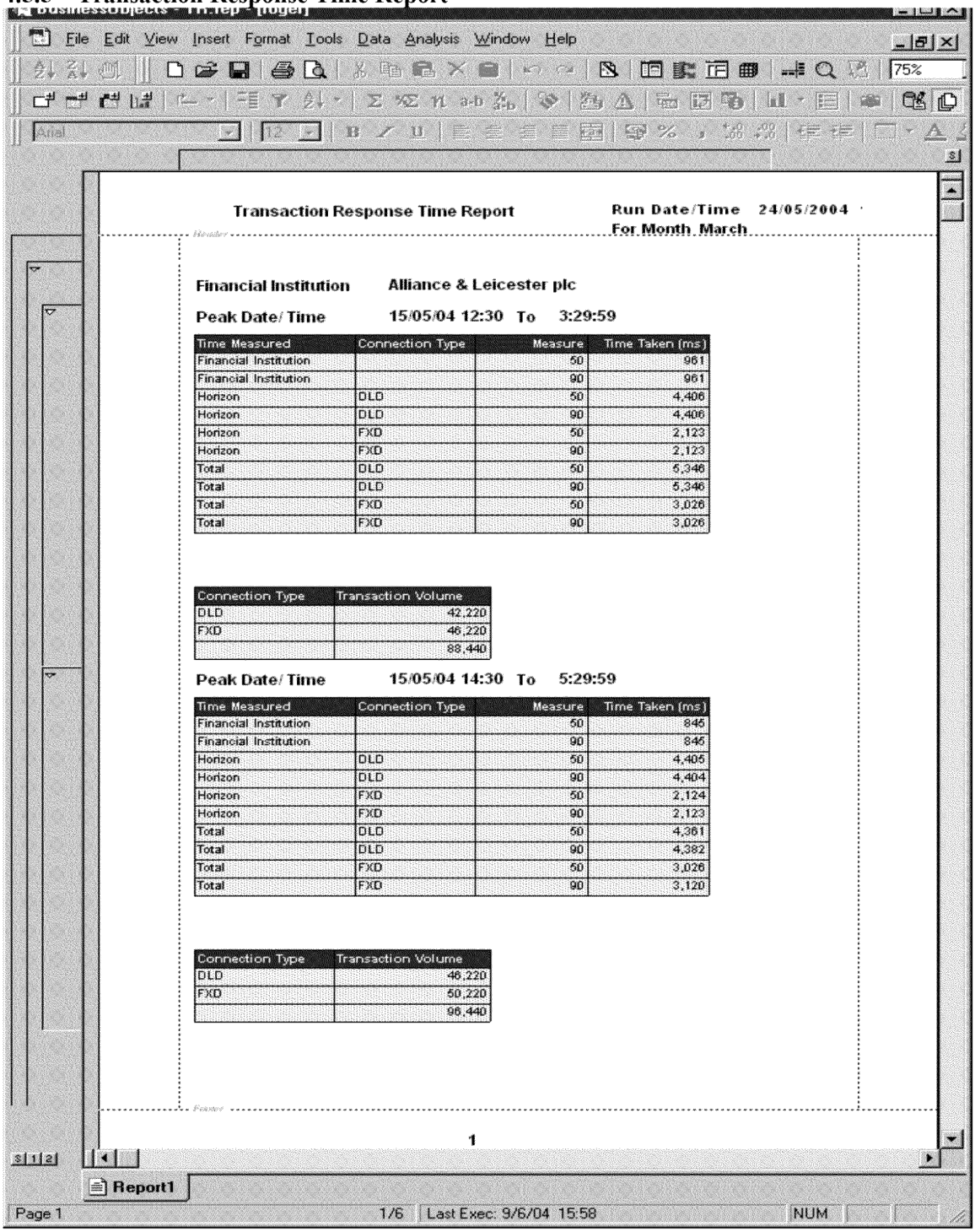
### 4.5.5 Transaction Response Time Report



Transaction Response Time Report — Run Date/Time 24/05/2004 — For Month March

**Financial Institution** Alliance & Leicester plc

**Peak Date/ Time** 15/05/04 12:30 To 3:29:59

| Time Measured | Connection Type | Measure | Time Taken (ms) |
|---|---|---|---|
| Financial Institution | | 50 | 961 |
| Financial Institution | | 90 | 961 |
| Horizon | DLD | 50 | 4,406 |
| Horizon | DLD | 90 | 4,406 |
| Horizon | FXD | 50 | 2,123 |
| Horizon | FXD | 90 | 2,123 |
| Total | DLD | 50 | 5,346 |
| Total | DLD | 90 | 5,346 |
| Total | FXD | 50 | 3,026 |
| Total | FXD | 90 | 3,026 |

| Connection Type | Transaction Volume |
|---|---|
| DLD | 42,220 |
| FXD | 46,220 |
| | 88,440 |

**Peak Date/ Time** 15/05/04 14:30 To 5:29:59

| Time Measured | Connection Type | Measure | Time Taken (ms) |
|---|---|---|---|
| Financial Institution | | 50 | 846 |
| Financial Institution | | 90 | 846 |
| Horizon | DLD | 50 | 4,405 |
| Horizon | DLD | 90 | 4,404 |
| Horizon | FXD | 50 | 2,124 |
| Horizon | FXD | 90 | 2,123 |
| Total | DLD | 50 | 4,361 |
| Total | DLD | 90 | 4,382 |
| Total | FXD | 50 | 3,026 |
| Total | FXD | 90 | 3,120 |

| Connection Type | Transaction Volume |
|---|---|
| DLD | 46,220 |
| FXD | 50,220 |
| | 96,440 |

1

Report1

Page 1 1/6 Last Exec: 9/6/04 15:58 NUM

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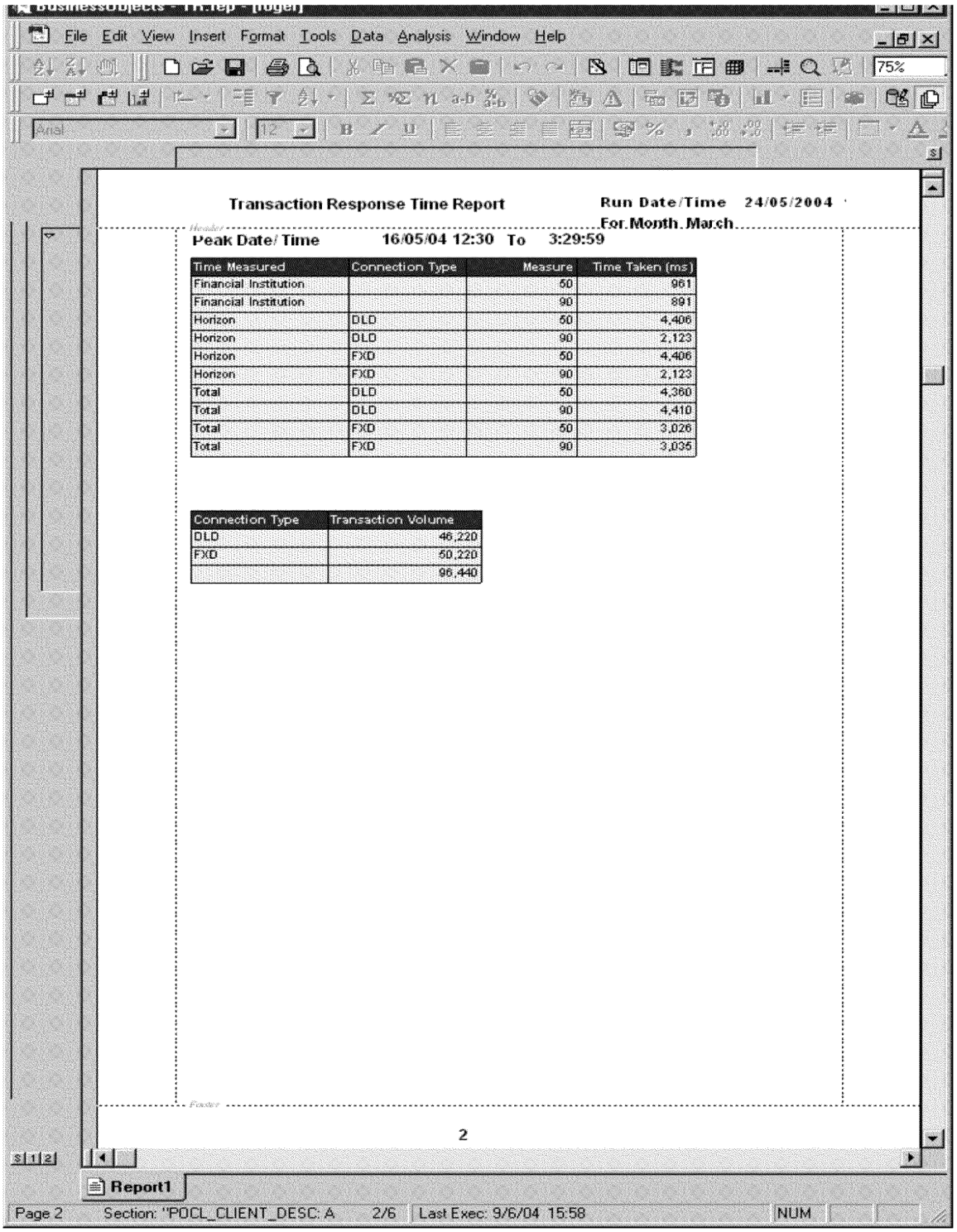

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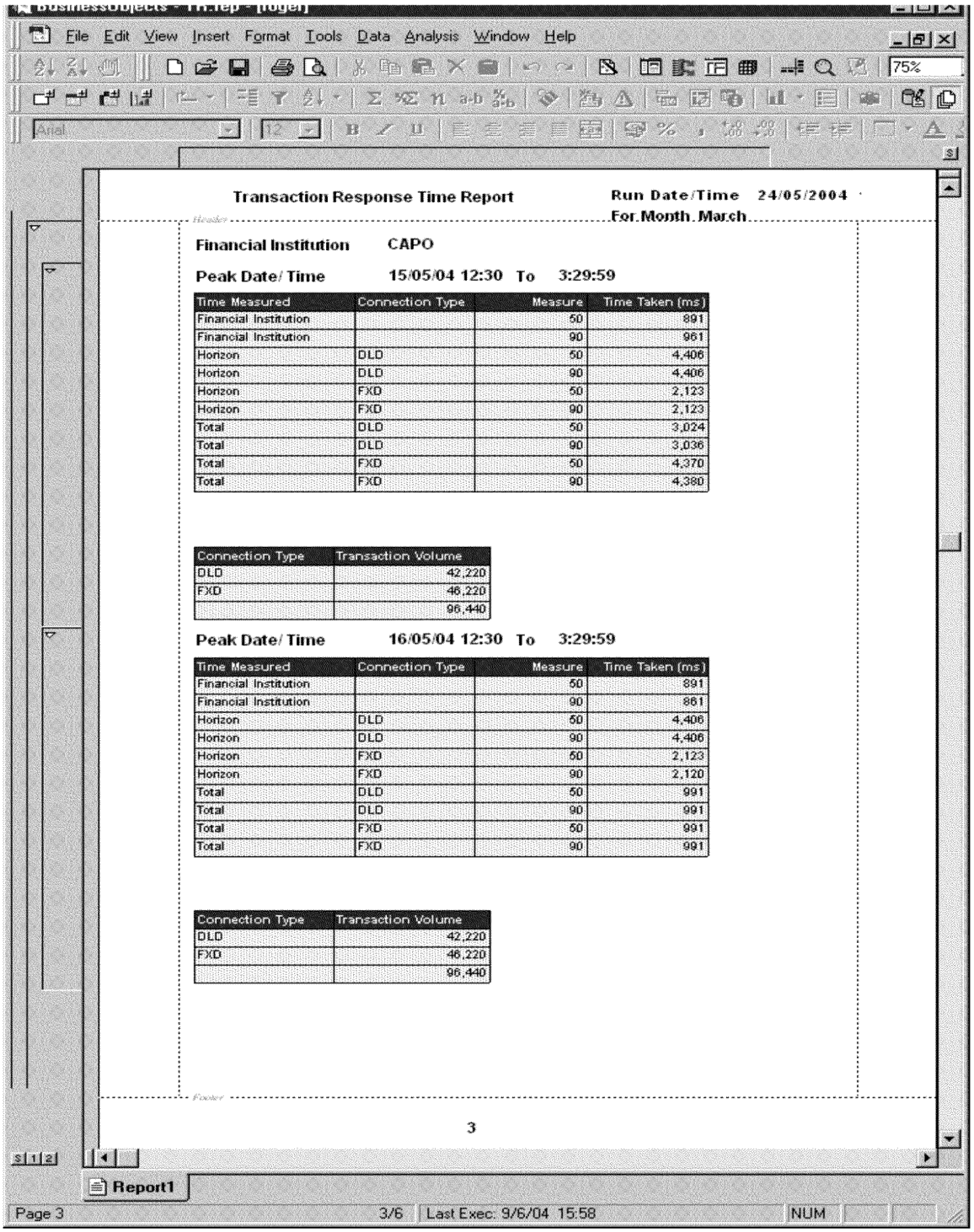

Transaction Response Time Report Run Date/Time 24/05/2004
For Month March

**Financial Institution** CAPO

**Peak Date/ Time** 15/05/04 12:30 To 3:29:59

| Time Measured | Connection Type | Measure | Time Taken (ms) |
|---|---|---|---|
| Financial Institution | | 50 | 891 |
| Financial Institution | | 90 | 961 |
| Horizon | DLD | 50 | 4,406 |
| Horizon | DLD | 90 | 4,406 |
| Horizon | FXD | 50 | 2,123 |
| Horizon | FXD | 90 | 2,123 |
| Total | DLD | 50 | 3,024 |
| Total | DLD | 90 | 3,036 |
| Total | FXD | 50 | 4,370 |
| Total | FXD | 90 | 4,380 |

| Connection Type | Transaction Volume |
|---|---|
| DLD | 42,220 |
| FXD | 46,220 |
| | 96,440 |

**Peak Date/ Time** 16/05/04 12:30 To 3:29:59

| Time Measured | Connection Type | Measure | Time Taken (ms) |
|---|---|---|---|
| Financial Institution | | 50 | 891 |
| Financial Institution | | 90 | 861 |
| Horizon | DLD | 50 | 4,406 |
| Horizon | DLD | 90 | 4,406 |
| Horizon | FXD | 50 | 2,123 |
| Horizon | FXD | 90 | 2,120 |
| Total | DLD | 50 | 991 |
| Total | DLD | 90 | 991 |
| Total | FXD | 50 | 991 |
| Total | FXD | 90 | 991 |

| Connection Type | Transaction Volume |
|---|---|
| DLD | 42,220 |
| FXD | 46,220 |
| | 96,440 |

3

Report1

Page 3 3/6 Last Exec: 9/6/04 15:58 NUM

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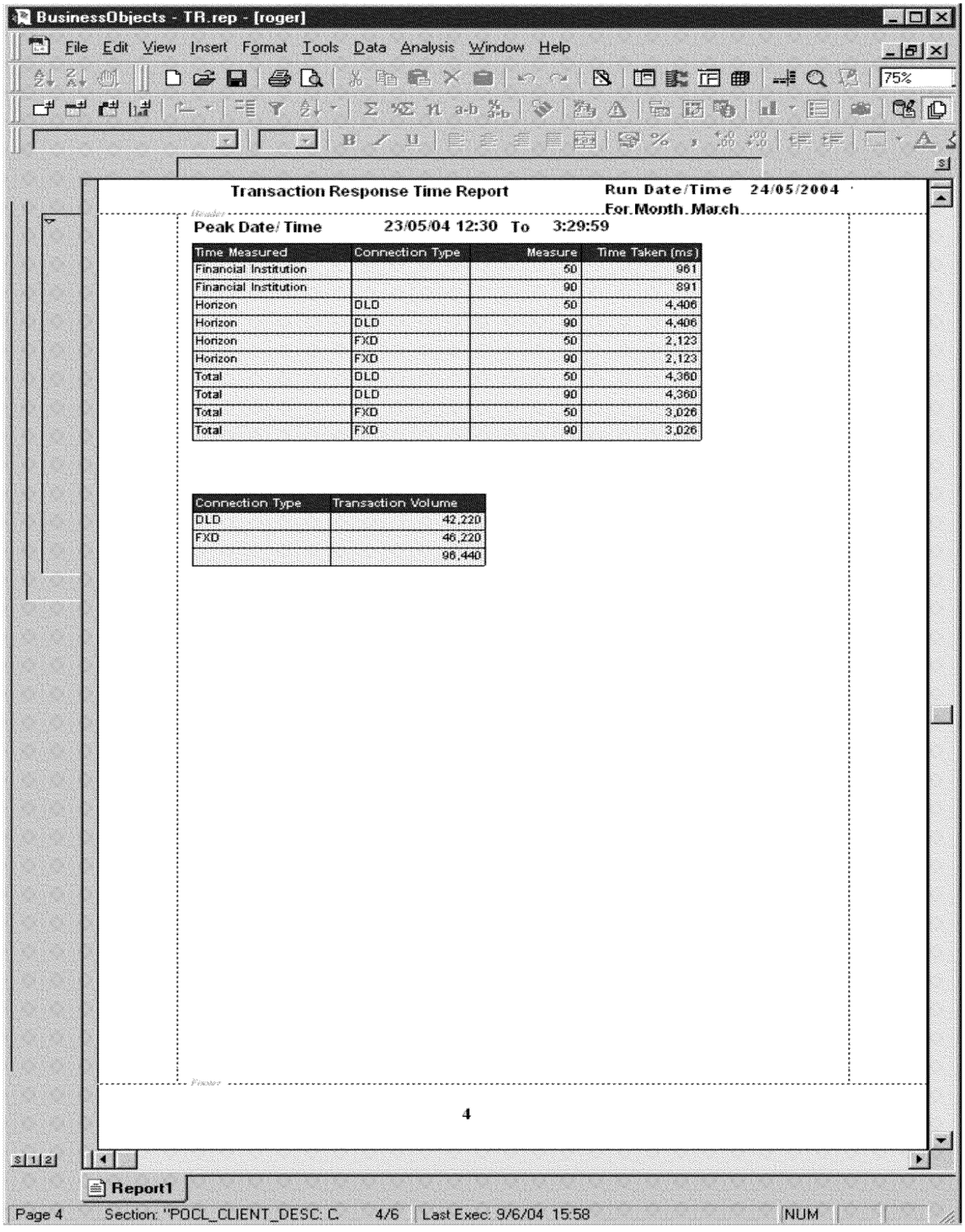

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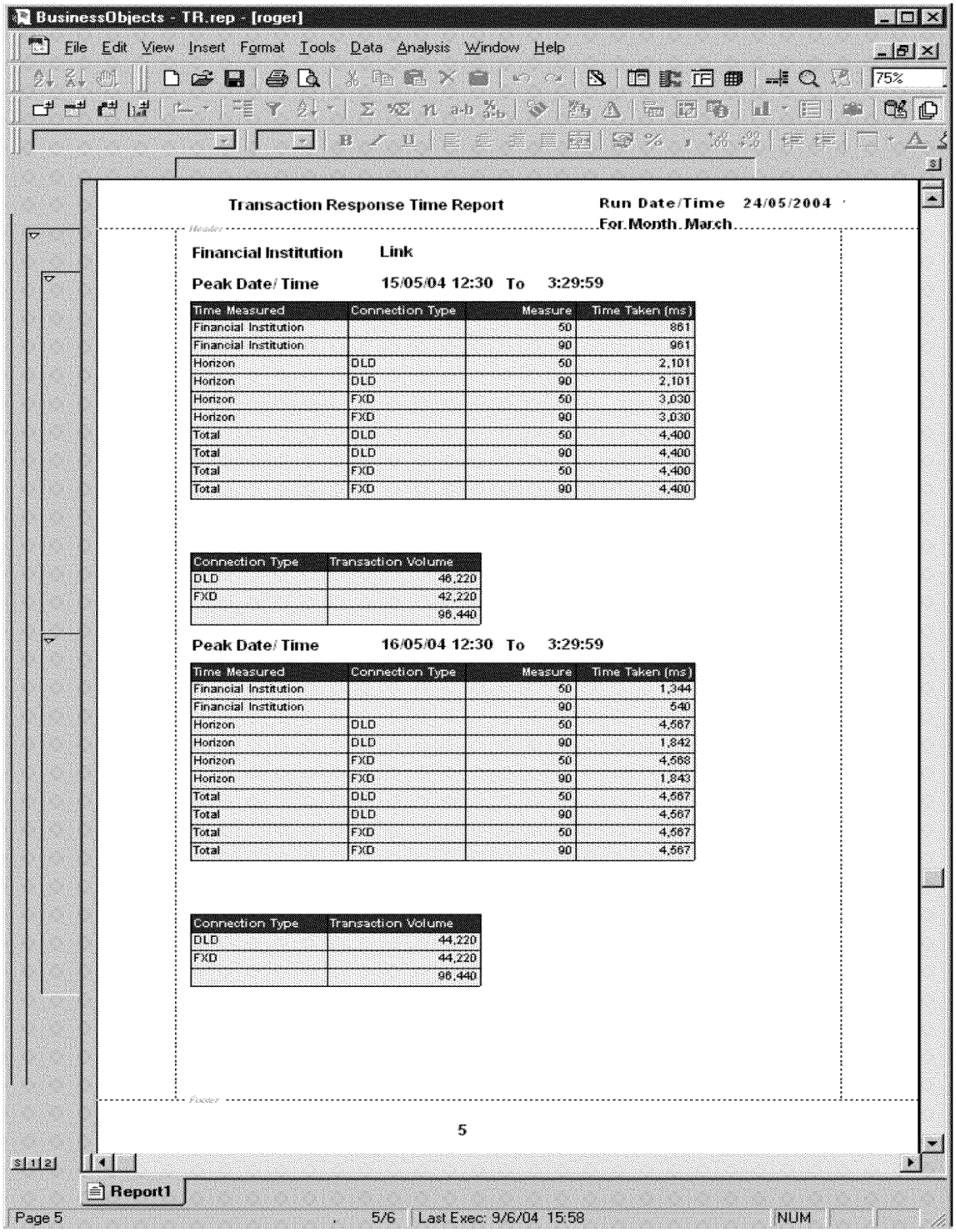

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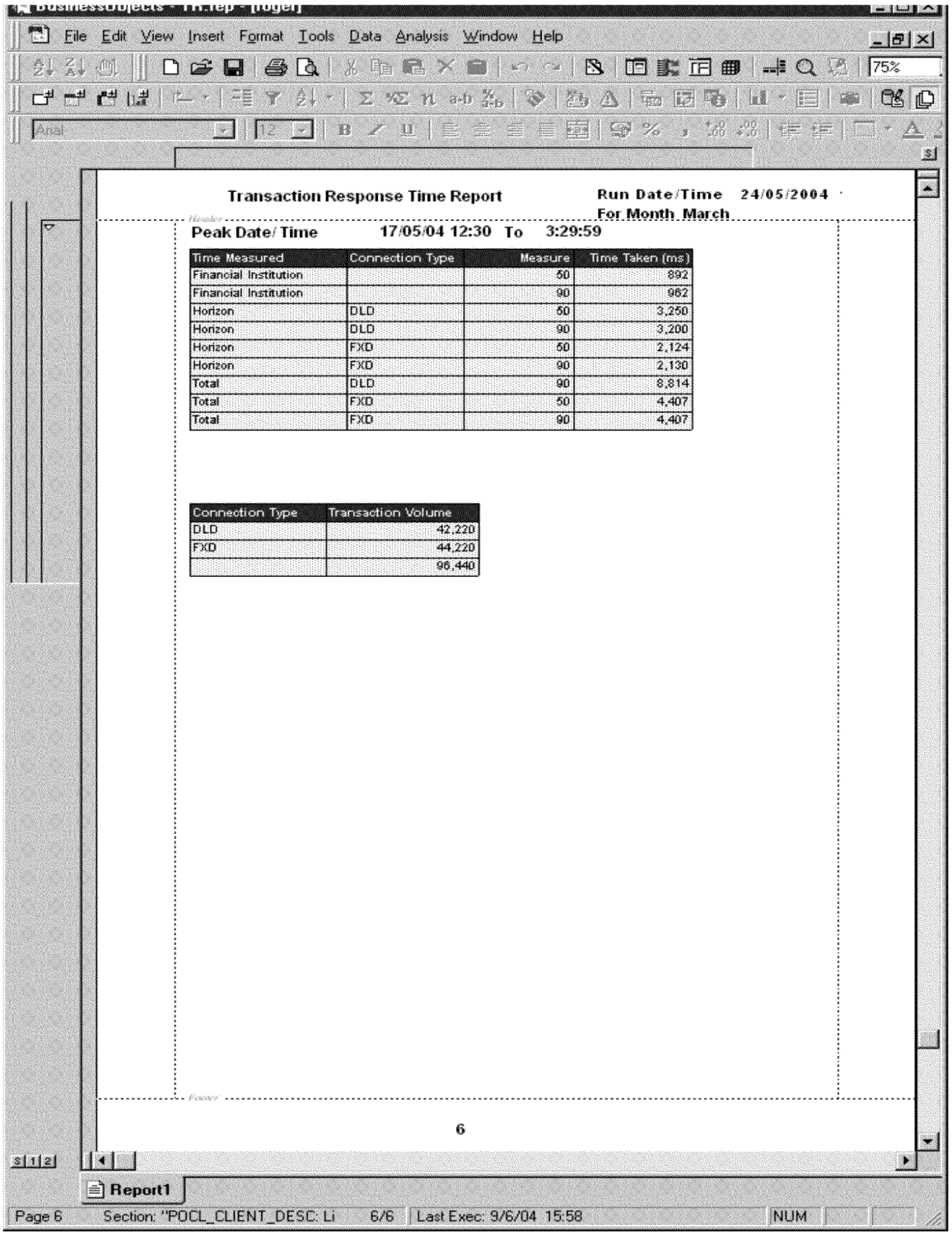

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### 4.5.6 Banking Transactions Performed in Fallback

*Header*

**Banking Transactions Performed in Fallback**

Last Refreshed: 13-Jan-2004 13:24:23
From: 04-Jan-04
To: 10-Jan-04

**Accounting Week: 10-Jan-04**

| Issuer Scheme | Transactions in Fallback | % of Total |
|---|---|---|
| Abbey National BCA | 19,940 | 13 |
| Alliance & Leicester | 18,170 | 13 |
| Alliance & Leicester Electron | 8,870 | 13 |
| Bank of Ireland | 6,725 | 3 |
| Barclays Cash Card | 6,655 | 2 |
| Lloyds TSB | 4,850 | 5 |
| LTSB Basic Bank Account | 4,690 | 6 |
| | **69,900** | **8** |

*Footer*

**Page 1 of 1**

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*Header*

**Debit Card Transactions Performed in Fallback**

**Accounting Week:** **10-Jan-04**

Last Refreshed: 13/01/2003 13:24:23
From: 04/01
To: 10/01

| Fad Code | Outlet | Transactions in Fallback | % of Total |
|---|---|---|---|
| 3001369 | Brockdish | 5,255 | 6 |
| 3002055 | Sheepy Magna | 3,970 | 5 |
| 3002071 | Stretton | 4,900 | 8 |
| 3002179 | Wellinger Way | 7,065 | 5 |
| 3002276 | Portland Road | 6,565 | 4 |
| 3002306 | Somersham | 6,310 | 4 |
| 3002381 | Beverley Drive | 6,725 | 3 |
| 3002462 | Londonderry | 7,505 | 4 |
| 300306X | Halifax Road | 6,655 | 2 |
| 3003205 | Lee Mount | 5,410 | 3 |
| 3003213 | Bodmin Road | 4,850 | 5 |
| 300323X | Rawdon | 4,690 | 6 |
| | **Sum:** | **69,900** | **5** |

**Page 1 of 1**

*Footer*

FUJ00232557





ast Updated: 13/12/2004 17:49:00

*Header*

**Debit Card Transactions Performed in Fallback** Last Refreshed: 13/01/2003 13:24:23

FUJ00232557



## 4.5.7 Card Account Transactions by Method of Entry

**Card Account Transactions by Method of Entry**

Last Refreshed: 10-Feb-04 12:36
From: 01-Jan-04
To: 31-Jan-04

**Accounting Period End Date:** 28-Jan-04

**Accounting Week Ending** **08-Jan-04**

| Total Outlets Performing Chip Transactions | 23,456 |
|---|---|

**Outlets with Card Account Transactions but No ICC transactions**

| FAD Code | Post Office Name | Total Transactions | No. ICC PIN Pad Read | No. ICC Fallback | No. Mag Stripe mread | No. Manual Entry |
|---|---|---|---|---|---|---|
| 3001369 | Brockdish | 2,300 | 0 | 1,150 | 767 | 383 |
| 3002055 | Sheepy Magna | 1,200 | 0 | 600 | 400 | 200 |
| 3002071 | Stretton | 900 | 0 | 450 | 300 | 150 |
| 3002179 | Wellinger Way | 1,105 | 0 | 553 | 368 | 184 |
| 3002276 | Portland Road | 1,205 | 0 | 603 | 402 | 200 |
| 3002306 | Somersham | 50 | 0 | 25 | 17 | 8 |
| 3002381 | Beverley Drive | 30 | 0 | 15 | 10 | 5 |
| 3002462 | Londonderry | 700 | 0 | 350 | 233 | 117 |
| 300306X | Halifax Road | 1,100 | 0 | 550 | 367 | 183 |
| 3003205 | Lee Mount | 970 | 0 | 485 | 323 | 162 |
| 3003213 | Bodmin Road | 890 | 0 | 445 | 297 | 148 |
| 300323X | Rawdon | 1,200 | 0 | 600 | 400 | 200 |
| 3003248 | East Stockwith | 2,300 | 0 | 1,150 | 767 | 383 |
| 3003272 | Catcote Road | 1,200 | 0 | 600 | 400 | 200 |
| 3003299 | Newsham | 900 | 0 | 450 | 300 | 150 |
| 300340X | Stocksbridge | 1,105 | 0 | 553 | 368 | 184 |

**Accounting Week Ending** **15-Jan-04**

| Total Outlets Performing Chip Transactions | 23,456 |
|---|---|

**Outlets with Card Account Transactions but No ICC transactions**

| FAD Code | Post Office Name | Total Transactions | No. ICC PIN Pad Read | No. ICC Fallback | No. Mag Stripe mread | No. Manual Entry |
|---|---|---|---|---|---|---|
| 3001369 | Brockdish | 2,300 | 0 | 1,150 | 767 | 383 |
| 3002055 | Sheepy Magna | 1,200 | 0 | 600 | 400 | 200 |
| 3002071 | Stretton | 900 | 0 | 450 | 300 | 150 |
| 3002179 | Wellinger Way | 1,105 | 0 | 553 | 368 | 184 |
| 3002276 | Portland Road | 1,205 | 0 | 603 | 402 | 200 |
| 3002306 | Somersham | 50 | 0 | 25 | 17 | 8 |
| 3002381 | Beverley Drive | 30 | 0 | 15 | 10 | 5 |
| 3002462 | Londonderry | 700 | 0 | 350 | 233 | 117 |
| 300306X | Halifax Road | 1,100 | 0 | 550 | 367 | 183 |