Version 5.1

Static Data Import-Export Functional Specifications

Original Review and Approval			
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Revision History

Version	Date	Reason	Who
3.0	07/12/10	Create initial document for Cortex 3.2. File copied from *Static Data Import-Export HYPO FSpecs v2.60.docx*. Consistent with HYPO-3.0.1 Update use of accno/currcode for card import records.	D. Fourkiotis
3.1	28/01/11	Updated cycle_begin date in limit record to optional; also modified its description.	Cliff North
3.2	07/02/11	Remove changes in accno/currcode for card import records introduced in 3.0 version of the specification. Correct problems regarding CCS processing after 3.2 migration	D. Fourkiotis
4.1	21/6/2011	Renaming of the oldpan field to oldvpan Added a merchant record definition. Added a POS record definition. Added the trailer record definition Other minor corrections Stated that record set '21' only supports a single card per set.	Roger Wyatt
4.2	24/6/2011	Correction to the limits record type.	Roger Wyatt
4.3	11/7/2011	Corrected the total record lengths of the customer record. Added date_created to the card record and adjusted total record lengths accordingly.	Sam Dods
4.4	31/10/2011	Added additional information about the data mappings between fields and columns on the Cortex / CCS databases.	Roger Wyatt
4.5	31/10/2011	Added home address line 0.	Sam Dods
4.6	1/8/2012	Removal of references to CCS.	Roger Wyatt
4.7	27/11/2012	Added the postal Address record	Roger Wyatt
4.8	01/02/2013	Added Card Level User Data	Wassim Melhem
4.9	25/02/2013	Added Additional Customer Identification Data	Piotr Hejduk

| 5.0 | 28/2/2013 | Added customer identification data to record type 12. Removed references to Merchant and POS data | Roger Wyatt |
| 5.1 | 11/03/2013 | Rearranged Postal Address Record | Piotr Hejduk |

Introduction

Purpose of the document

This document describes the file and record formats for import and export of static data to and from Cortex. It specifies the input and output requirements of any external program that generates or reads static Cortex data.

Who should read the document

This document should be read by the bank's technical staff involved in developing interface programs.

Scope of the document

The document is applicable to any customer who wishes to use the standard Cortex static data file formats.

Structure of the document

- Chapter 1 describes the general structure of the file of static data.

- Chapter 2 describes in detail the format of the records contained in the static data file.

- Chapter 2.9 describes all valid messages which may be passed in a static data file, the combinations of action code and record type which must be used for each message, and the data which must be included in each message.

- Appendix A describes CORTEX account and card status codes.

- Appendix B describes mappings between Static Data Import fields and CORTEX data table columns

1.   Purpose

1.1.   Contents of the Static Data File

The static import/export file consists of three distinct sections:

- a file header record (see section 1.1)
- a number of detail records (see sections 2.5)
- a file trailer record (see section 2.9)

Each record in the static data file has a fixed length (up to a maximum record length of 1024 bytes) depending on the record type, and is terminated with a new line character.

Records may be free-standing (e.g., add, delete, amend records), or may be grouped together in a record set (e.g., card application, new card import). The nature of each record within a file is indicated by the actioncode field in the Record Header Field (see section 2.3).

Table 1 defines the possible values of this field.

Table 1: Valid values of the actioncode field

Field Value	Description
00	File header
01 → 19	free-standing import
20 → 49	Record set import
50 → 69	free-standing export
70 → 98	Record set export
99	File trailer

1.2.   Free-standing records

All free-standing records have the recseq sub-field in the record header field (see section 2.3) set to 00.

The following action codes are applicable to free-standing records:

- 01: Import add
- 02: Import amend
- 03: Import delete
- 04: Import associated add
- 10: Import re-issue
- 11: Import replace (lost/stolen)

- 12: Import renew

- 13: Import reissue PIN

- 14: Import replace (due to fraudulent use)

1.3.   Record sets

In record sets, the recseq sub-field of the record header field starts at 00 and increments by one for each subsequent record. All records in a set must have the same actioncode, and must occur sequentially in the file.

The following action codes are applicable to record sets:

- 21: Import new card

The structures of these record set is described in section 3.13.

2. Record Formats

2.1. Record details

The following sections provide detailed descriptions of each of the record types, and the data contained within them. In each case, the following data definitions are employed:

a	Alphabetic, left justified, right padded spaces
an	Alphanumeric, left justified, right padded spaces
n	Numeric, left justified, right padded spaces
f	Numeric; left justified, right padded spaces; floating point number
d	Date, format YYYYMMDD
K	Primary key
F	Foreign key, field refers to related records in Cortex database
O	Optional (i.e., may be left as blank)
I	Ignored
Blank	Mandatory

The designation "optional" means that the field is always optional. "Mandatory" fields may be optional for some actions and types. "Ignored" fields are always ignored by the program. Details are given for each message.

2.2. Field Mapping of Id Columns

The following field names used in several record types in the message specification are used to derive the ids of the corresponding object on the Cortex Database.

Cross referencing of objects make use of the primary key of the referenced table.

Field Name	Used To Derive	Referenced Table and Column Name	Key Used in Join to Referenced Table
Accno Acccurr	accdet_id	ACCDET.id	Inst_id Accno currcode
Instcode	inst_id	INST.id	Instcode
Branch	branch_id	BRANCH.id	Brncode
Crdproduct	crdproduct_id	CRDPRODUCT.id	Inst_id

			crdproduct
Mrchno	merchant_id	MERCHANT.id	Inst_id mrchno
Custcode	custdet_id	CUSTDET.id	Inst_id Custcode
cat_isscomm	cat_isscomm_id	CAT_ISSCOMM.id	Catvalue
cat_issrisk	cat_issrisk_id	CAT_ISSRISK.id	Catvalue
cat_custseg	Cat_custseg)id	CAT_CUSTSEG	Inst_id catvalue
Cat_crdiss	Cat_crdiss_id	CAT_CRDISS	Inst_id catvalue

2.3.   Record Header field

Table 2 below provides a detailed description of the reached field, which is present in all records:

Table 2: Definition of a Record Header field

RECORD HEADER FIELD			
Field	**Type**	**Length**	**Description**
Actioncode	n	2	Actioncode: 00: Header 01: Import Add 02: Import Amend 03: Import Delete 04: Import associated add 10: Import re-issue 11: Import replace (lost/stolen) 13: Import reissue PIN 14: Import replace (fraud use) 21: Import New Card 99: Trailer
Recseq	n	2	Record sequence
Rectype	n	2	Record type: 00: Header 01: Customer

RECORD HEADER FIELD			
Field	**Type**	**Length**	**Description**
			02: Account 03: Card import 12: Postal Address 99: Trailer
Recver	n	2	Record version number: 01 (unless otherwise specified)
TOTAL		8	

The recver field specifies the record version. Fields within individual records may be flagged as Version XX. This means that the field was not present in versions prior to the version mentioned. For example, in Record Type 05, fields title_t1, firstname_t1, lastname_t1 and encodename only appear in Version 02 and onwards. The version number in the record header determines which fields appear within the record, i.e. a record with recver 01 must contain only Version 01 fields, a record with recver 02 must contain all Version 01 and version 02 fields, etc.

Use of version number is controlled by a configuration parameter. Cortex will only generate export records with version number less than or equal to the version number specified in the configuration. It will accept import records with any valid version number.

2.4. Record Type 00: File Header record

Each static data file (import or export) begins with the file header record.

Table 3 below provides a detailed description of the file header record:

Table 3: Definition of a File Header record

FILE HEADER RECORD			
Field	**Type**	**Length**	**Description**
Rechead	an	8	Record header (see section 2.3)
Filename	a	20	'CORTEX STATIC DATA'
Filenum	n	8	File number
Processdate	d	8	Processing date
TOTAL		44	

2.5. Record Type 01: Customer record

Table 4 below provides a detailed description of the customer record.

Unless otherwise specified in the 'Notes' column, the Field names map directly to columns in the CUSTDET table.

Table 4: Definition of a Customer record

Field	Type	Length	Description		Ver	BRE Notes
Rechead	an	8	Record header (see section 2.3)			
Instcode	an	4	Institution code	K		Always set to 'FCBB'/ FCBT For field mapping details see section 2.2
Branch	an	8	Branch code	I		Branch code the customer is linked to. For field mapping details see section 2.2
Custcode	an	8	Customer code	K		CIF Code For field mapping details see section 2.2
Custtype	n	1	Customer type: 0: Normal 1: Bank Employee 2: Corporate			This is a static list of customer types. Additional customer type may not be defined.
Lastname	an	50	Customer last name			It is recommended to have only the last name of the customer in this field. This is because the last name is an indexed field and may be used in search conditions.
Firstname	an	50	Customer first name			Optional to have first and subsequent names of the customer.
Title	an	4	Customer title	O		
Sex	n	1	Sex: 0: Male 1: Female			

Field	Type	Length	Description		Ver	BRE Notes
Married	n	1	Married: 0: Single 1: Married			
Profession	n	2	Profession code	O		The Cortex core does nothing with this information. However it may be included in some rule evaluations so this may prove useful in the future and it is advised to set it accurately. ISO Standard. List is configurable as part of NUMDESCR (descry type 'pr').
homeaddr1	an	35	Home address line 1			Maps to CUSTDET.addrl1 No longer used as Contact Mechanism are to be used instead (see section 2.8).
homeaddr2	an	35	Home address line 2	O		Maps to CUSTDET.addrl2 No longer used as Contact Mechanism are to be used instead (see section 2.8)
homeaddr3	an	35	Home address line 3	O		Maps to CUSTDET.addrl3 No longer used as Contact Mechanism are to be used instead (see section 2.8)
Homecity	an	20	Home city			No longer used as Contact Mechanism are to be used instead (see section 2.8)
Hometel	an	20	Home telephone	O		
Homepcode	an	10	Home postcode	O		

Field	Type	Length	Description		Ver	BRE Notes
Pobox	an	8	PO box	O		
work_addr1	an	35	Work address line1	O		No longer used as Contact Mechanism are to be used instead (see section 2.8)
work_addr2	an	35	Work address line 2	O		No longer used as Contact Mechanism are to be used instead (see section 2.8)
work_addr3	an	35	Work address line 3	O		No longer used as Contact Mechanism are to be used instead (see section 2.8)
Workcity	an	20	Work city	O		
Worktel	an	20	Work telephone	O		
Workpcode	an	10	Work post code. Since the field in the database is only 8 characters, the supplied field will be truncated. There will be a warning in the debug file if significant characters are lost.	O		
Birthdate	d	8	Date of birth. In previous versions this field was ignored. It is now used.	O		
Idnumber	an	12	Identification number	O		
Mailshots	n	1	Send mailshots: 0: Do not send 1: Send			

Field	Type	Length	Description		Ver	BRE Notes
userdata1	an	12	User data 1 for customer record	O		
userdata2	an	12	User data 2 for customer record	O		
userdata3	an	12	User data 3 for customer record	O		
Prflang	an	2	The preferred language of the customer	O	2	Should be a single numeric digit.
Addrind	n	1	The address to use for associated correspondence: 0: Use the home address 1: Use an override address if present and valid (note that no check is performed against the validity period if this value is set) 2: Use the work address if valid 3: Use PO Box if valid Note: the default if an address is not valid is always the home address	O	2	-
Email	an	64	Email address	O	3	
Fax	an	20	Fax number	O	3	

Field	Type	Length	Description		Ver	BRE Notes
Usrdata4	an	32	User data	O	3	
homeaddr0	an	75	Home address line 0	O	4	First line of address, maps to CUSTDET.addrl0

No longer used as Contact Mechanism are to be used instead (see section 2.8) |
Cat_custSeg	An	12	Customer Segmentation	O	4	Customer segmentation level. For field mapping details see section 2.2
ID type	an	16	Type of identification	O	5	
Customer Id Code	An	32	Customer Identification	O	5	
TOTAL		512
515
631
718
766	Version 1
Version 2
Version 3
Version 4
Version 5			

If the Version 2 fields are not specified, the preferred language defaults to "GB", and the address indicator to home.

2.6.   Record Type 02: Account record

Table 5 below provides a detailed description of the account record.

Unless otherwise specified in the 'Notes' column, the Field names map directly to columns in the ACCDET table.

Table 5: Definition of an Account record

ACCOUNT RECORD						
Field	**Type**	**Length**	**Description**		**Ver**	**Notes**
rechead	an	8	Record header (see section 2.3)			
instcode	an	4	Institution code	K		Set to 'FCBT/FCBB For field mapping details see section 2.2
branch	an	8	Branch code	F		For field mapping details see section 2.2
accno	an	28	Account number. If not specified upon add Cortex will generate an account number.	K		
acccurr	N	3	Account currency code	K		Account currency For field mapping details see section 2.2
acctype	An	2	Account type	F		Set to the appropriate account type. The account type must exist on Cortex
accstatus	An	2	Account status	F		Set to the account status of the account. The status must exist on the Cortex database. A normal account status should be set to '00'. Maps to the field ACCDET.statcode
custcode	an	8	Customer code	F		CIF Customer Code For field mapping details see section 2.2
ID type	an	16	Type of identification	O		
Customer Id Code	An	32	Customer Identification	O		

ACCOUNT RECORD						
Field	**Type**	**Length**	**Description**		**Ver**	**Notes**
creditlim	f	12	Credit limit			For debit accounts set to '0'
vipflag	an	1	VIP Flag	O	2	Default to '0'. Optionally may be used in rule evaluation. Maps to ACCDET.vipflag
classid	n	1	Class ID 1 : Debit account 2 : Credit account	O	2	For debit and pre-paid set to '1'
ccsinfo	an	56	CCS information. This field is mandatory for Account Import Add records when account class (the field classid) is 2 and Credit Card System is installed (i.e. the option CCSINSTALLED is set). Sub-fields: position 1-10 Cycle code position 11-20 Charge profile ID position 21-24 CCS scheme position 25-56 User data 1 data	O	3	Omit this.

ACCOUNT RECORD					Ver	Notes
Field	**Type**	**Length**	**Description**		**Ver**	**Notes**
TOTAL		123 125 181	Version 1 Version 2 Version 3			

If the Version 2 fields are not specified, the VIP Flag defaults to "0", and the Class ID defaults to 1.

2.7. Record Type 03: Card Import record

Table 6 below provides a detailed description of the card import record.

Unless otherwise specified in the 'Notes' column, the Field names map directly to columns in the CRDDET table.

Table 6: Definition of a Card Import record

CARD IMPORT RECORD						
Field	**Type**	**Length**	**Description**		**Ver**	**Notes**
rechead	n	8	Record header (see section 2.3)			
instcode	an	4	Institution code	F		Set to 'FCBT/FCBB For field mapping details see section 2.2
branch	an	8	Branch code	F		For field mapping details see section 2.2

CARD IMPORT RECORD						
Field	**Type**	**Length**	**Description**		**Ver**	**Notes**
crdproduct	an	4	Card product	F		Refer to the migration document The Card product should already be defined on Cortex.
vpan	n	19	Virtual card number	KO		Card alias, the alternative identifier for the PAN Maps to CRDDET. iss_host_crdref For new cards set this to space and cortex will generate a VPAN. .
pan	n	19	Card serial number	KO		
seqno	n	1	Card sequence number	KO		
additional	n	1	Additional card number - Blank or 0 : Primary card - 1 for supplementary card			
effective	d	8	Effective date	O		Date from when the card may be used in the format YYYYMMDD
expiry	d	8	Expiry date	O		Full date in the format YYYYMMDD

CARD IMPORT RECORD						
Field	**Type**	**Length**	**Description**		**Ver**	**Notes**
cyclen	n	2	Cycle length	FO		this card level limit will be used for limiting daily cash transactions. Set this to space and Cortex will default to the value defined at the card format level.
currcode	n	3	Card currency code			Should be set to the default currency for the card (defined at the Card format level). Not directly mapped to any field on the DB
cyclim	f	12	Cycle limit (online)	O		Limit applied over the cycle
offlim	f	12	Daily limit (offline)	O		This will not be used. Set this to space.
statcode	an	2	Card status.	FO		For new cards omit this field and Cortex will default to the status defined at the card format level. For card migration set this to the appropriate card status code. The status code must already exist on Cortex.
emboss	an	32	Name to emboss	O		Name printed on the card.
usrdata	an	30	User data for card record	O		

CARD IMPORT RECORD						
Field	**Type**	**Length**	**Description**		**Ver**	**Notes**
kinship	an	10	Relationship to primary cardholder	O		Eg father, son etc... Cortex does nothing with this field and it is not visible on the Cortex GUI.
accno	an	28	Account number Mandatory for debit cards.	FO		Default account the card is linked to.
custcode	an	8	Customer code	F		Customer CIF For field mapping details see section 2.2
ID type	an	16	Type of identification	O		ID type
Customer Id Code	An	32	Customer Identification	O		Customer Id Code
oldvpan	n	19	VPAN of card being replaced			Only used for replacing cards. Set this to the VPAN. Maps to CRDDET. iss_host_crdref
oldseqno	n	1	Seqno of card being replaced			If set to space then this defaults to '0' Maps to CRDDET.seqno
urgent	n	1	Urgent issue: 0: Normal 1: Urgent	O		Set to 0 for migrating cards. Cards in urgent batches appear first on the GUI.

CARD IMPORT RECORD						
Field	**Type**	**Length**	**Description**		**Ver**	**Notes**
firstname	an	50	First name	O	02	
lastname	an	50	Last name	O	02	
title	an	4	Title	O	02	
cycbegin	d	8	Beginning of cycle	O	02	The date the card level cycle starts on. Omit this field.
corp	n	1	Corporate flag: 0: Normal card (not corporate) 1: Real corporate card 2: Master (dummy) corporate card	O	03	Set this to '0'
corppan	n	19	Corporate card PAN to which this card is linked	O	03	Set this to spaces
corpseq	n	1	Corporate card seqno to which this card is linked	O	03	Set this to spaces
corpcust	an	8	Corporate customer code	O	03	Set this to spaces
debaccno	an	28	Debit account number (for credit accounts managed by Cortex).	O	04	Omit this field

CARD IMPORT RECORD						
Field	**Type**	**Length**	**Description**		**Ver**	**Notes**
acctypelim	an	2	Account type for limit or account record depending on the type of card being imported,.	O	04	Set to space
chgcycle	n	3	Charge cycle number	O	04	Set to space
totlim_amt	f	12	Max value of all transactions permitted in cycle.	O	04	Set to space
cashlim_amt	f	12	Max value of cash transactions permitted in cycle.	O	04	Set to space
purchlim_amt	f	12	Max value of purchase transaction permitted in cycle	O	04	Set to space
totlim_num	n	4	Max number of all transactions permitted in cycle.	O	04	Set to space
cashlim_num	n	4	Max number of cash transactions permitted in cycle	O	04	Set to space
purchlim_num	n	4	Max number of purchase transactions permitted in cycle	O	04	Set to space

CARD IMPORT RECORD						
Field	**Type**	**Length**	**Description**		**Ver**	**Notes**
dlv_method	n	1	Delivery method for produced card: 0 – Home delivery (default) 1 – Branch delivery 2 – Direct distribution 3 – Mail distribution	O	05	Defines where the card is sent to. Set to 1.
svccode	n	3	Service code (for EMV migration). Overides value on crdformat if supplied.	O	06	If omitted then this will default to the svc code defined at the card format level.
date_created	d	8	Date on which the card was created.	O	06	Should only be provided for migrating existing cards to Cortex. For new cards, this should be left blank (space-filled) and it will populated with the current local date.
cat_issfee	a	12	Issuer Fee Category	O	07	Selection of the issuer fee set to use will be defined at the card product level. Hence set this to 'space' Used to derive 'CRDDET_X. cat_issfee_id' Maps to CAT_ISSFEE.catvalue

CARD IMPORT RECORD						
Field	**Type**	**Length**	**Description**		**Ver**	**Notes**
cat_isscycfee	a	12	Issuer Cyclic Fee Category	O	07	For field mapping details see section 2.2 Used to derive: • 'CRDDET_X. cat_isscycfee_id' Maps to: • CAT_ISSCYCFEE.catvalue
cat_isscomm	a	12	Issuer Commission Category	O	07	For field mapping details see section 2.2
cat_issrisk	a	12	Issuer Risk Category	O	07	For field mapping details see section 2.2
design_ref	an	12	Card design reference	O	08	Omit this field
Cat_crdiss	an	12	Card issuance category	O	08	Card issuance category. For field mapping details see section 2.2
Usrdata1	an	32	Card Level User Data 1	O	08	
Usrdata2	an	32	Card Level User Data 2	O	08	-
Usrdata3	an	32	Card Level User Data 3	O	08	
Usrdata4	an	32	Card Level User Data 4	O	08	
Usrdata5	an	255	Card Level User Data 5	O	08	

CARD IMPORT RECORD						
Field	**Type**	**Length**	**Description**		**Ver**	**Notes**
TOTAL		288	Version 1			
		400	Version 2			
		429	Version 3			
		510	Version 4			
		511	Version 5			
		522	Version 6			
		570	Version 7			
		977	Version 8			

2.7.1.   General notes

Where the PAN and VPAN fields are left blank then a new PAN / VPAN will be generated during the import process (for add or replace card messages).

The `cycbegin` field defaults to the current `sysdate`.

The effective date defaults to the current local date. The default expiry date is derived from the current local date and the 'validity' (number of valid months) defined in the corresponding card format.

Other optional fields in version 1 and 2 default to the corresponding value in the card format – unless covered later in this section of the document.

2.8. Record Type 12: Postal Address Record

Error! Reference source not found. below provides a detailed description of the Postal Address record.

Table 7: Definition of a Postal Address record

POSTAL ADDRESS RECORD					
Field	**Type**	**Length**	**Description**		**Ver**
Rechead	an	8	Record header (see section 2.3)		1
instcode	an	4	Institution code		1
custcode	n	12	Customer code (CIF)	K	1
ID type	an	16	Type of identification	O	1
Customer Id Code	An	32	Customer Identification	O	1
contact_purpose	n	4	Contact Mechanism Purpose (will always be 00)		1
contact_type	n	4	Contact Mechanism Type • 00 – Home address • 10 – Work address • 20 – PO Box		1
address_1	an	40	Address line 1		1
address_2	an	40	Address line 2	O	1
address_3	an	40	Address line 3	O	1

POSTAL ADDRESS RECORD					
Field	Type	Length	Description		Ver
address_4	an	40	Address line 4	O	1
address_5	an	40	Address line 5	O	1
directions	an	255	Directions (free text)	O	1
City	an	40	City	O	1
postal_code	an	10	Post code	O	1
country_id	n	3	3 digit ISO Country Code	O	1
province	an	40	Province if available	O	1
territory	an	40	Territory if available	O	1
state	an	40	State if available	O	1
county	an	40	County if available	O	1
region	an	40	Region if available	O	1
linktype	N	3	Either '999' to link to the customer or '0' to link to a card Default is 999 (customer)	O	2
VPAN	AN	32	VPAN of the card to link the address to. This is ignored if the link type is 999.	O	2
PAN	AN	19	PAN of the card to link the address to. This is ignored if the VPAN is specified.	O	2

POSTAL ADDRESS RECORD					
Field	**Type**	**Length**	**Description**		**Ver**
Seqno	N	1	PAN/VPAN Sequence number Default is '0'	O	2
TOTAL		788 843	Version 1 Version 2		

2.9. Record Type 99: File Trailer

Each static data file (import or export) ends with the File Trailer record.

Table 8 below provi   des a detailed description of the File Trailer record:

Table 8: Definition of a File Trailer record

FILE TRAILER RECORD				
Field	**Type**	**Length**	**Description**	
rechead	an	8	Record header (see section 2.3)	

FILE TRAILER RECORD				
Field	**Type**	**Length**	**Description**	
filename	a	20	'CORTEX STATIC DATA'	
Nrecs	n	8	The number of records in the file (excluding file header and trailer records)	
TOTAL		36		

Thus, the file trailer record may be employed to check that the correct number of records have been imported into or exported from Cortex.

3. Valid Messages

3.1. Add Customer

This message type is used to add a new customer record to the Cortex database.

Table 9 provides a definition of the Add Customer message.

Table 9: Definition of an Add Customer message

Action code	Record type	Description	Number
01	01	Customer record (see section 2.5)	1: Mandatory

This is an example of a free-standing record (see section 1.2).

The customer record must contain all non-ignored fields defined in section 2.5. If any of the optional fields are left blank, then the database record will be left blank as well.

3.2. Add Account

This message type is used to add a new account record to the Cortex database. All records identified by the foreign key fields must already exist in the Cortex database.

Table 10 provides a definition of the Add Account message.

Table 10: Definition of an Add Account message

Action code	Record type	Description	Number
01	02	Account record (see section 2.6)	1: Mandatory

This is an example of a free-standing record (see section 1.2).

The account record must contain all fields defined in section 2.6.

3.3. Add Card

This message type is used to add a card to the Cortex database. The account and customer records must already exist.

Table 11 provides a definition of the Add Card Message.

Table 11: Definition of an Add Card message

Action code	Record type	Description	Number
01	03	Card Import Record (see section 2.6)	1: Mandatory

This is an example of a free-standing record (see section 1.2).

The Card import record must contain all fields defined in section 2.6, with the exception of the `pan` field. The account referenced by the card details record is linked to the card as the primary account. If the `pan` field is left blank, the program will generate a new `pan` from the format string in the card format record.

Starting from card import record version 04 database table `CRDDET_X` record is created.

3.4. Add Address

This message type is used to add an address to the CORTEX database. The customer record must already exist.

Table 12: Definition of an Add Address message

Action code	Record type	Description	Number
01	12	Address Import Record (see section **Error! Reference source not found.**2.8)	1: Mandatory

3.5. Amend Customer Details

This message type is used to amend a customer record on the Cortex database.

Table 13 provides a definition of the Amend Customer Details message.

Table 13: Definition of an Amend Customer Details message

Action code	Record type	Description	Number
02	01	Customer record (see section 2.5)	1: Mandatory

This is an example of a free-standing record (see section 1.2).

The customer record must contain all non-ignored fields defined in section 2.5. If any optional field is left blank, the corresponding database field will be overwritten with blanks. Any attempt to alter key fields will result in failure.

3.6. Amend Account Details

This message type is used to amend an account record on the Cortex database.

Table 14 provides a definition of the Amend Account Details message.

Table 14: Definition of an Amend Account Details message

Action code	Record type	Description	Number
02	02	Account record (see section 2.6)	1: Mandatory

This is an example of a free-standing record (see section 1.2).

The account record must contain the key fields defined in section 2.6. The foreign key fields are ignored. The only other fields are `creditlim, vipflag and branch`, and they are the only fields that will be amended.

3.7. Amend Card Details

This message type is used to amend a card record on the Cortex database.

Table 15 provides a definition of the Amend Card Details message.

Table 15: Definition of an Amend Card Details message

Action code	Record type	Description	Number
02	03	Card import record (see section 2.6)	1: Mandatory

This is an example of a free-standing record (see section 1.2).

The card import record must contain the key fields defined in section 2.6. Any attempt to alter key fields will result in failure. The fields `instcode, crdproduct, effective, old_pan, old_seqno,` and `urgent` are ignored. All other fields, if present, will be used to update the card details record in the database.

3.8. Amend Address

This message type is used to amend an address on the CORTEX database.

Table 16: Definition of an Amend Address message

Action code	Record type	Description	Number
02	12	Address Import Record (see section 2.8)	1: Mandatory

3.9.   Card Re-issue

This message type is used to place a card record into a Card Production batch so that the same plastic may be produced again. It is designed for the re-issue of damaged cards.

Table 17 provides a definition of the Card Re-issue message.

Table 17: Definition of a Card Re-issue message

Action code	Record type	Description	Number
10	03	Card import record (see section 2.6)	1: Mandatory

This is an example of a free-standing record (see section 1.2).

The card import record must contain the following fields (defined in section 2.6): `instcode`, `custcode`, `pan`, `seqno`, and `urgent`. All other fields are ignored.

3.10.   Card Replace (lost/stolen)

This message type is used to place a card record into a Card Production batch so that a lost or stolen card may be replaced.

See section 3.12 for "Card Replace (due to fraudulent use)"

Table 18 provides a definition of the Card Replace message (for lost/stolen).

Table 18: Definition of a Card Replace message (for lost/stolen)

Action code	Record type	Description	Number
11	03	Card import record (see section 2.6)	1: Mandatory

This is an example of a free-standing record (see section 1.2).

3.11. PIN Re-issue

This message type is used to place a card record into a Card Production batch so that a new PIN mailer can be generated for the card. It is designed for the re-issue of a PIN to a customer who has forgotten their PIN.

Table 19 provides a definition of the PIN Re-issue message.

Table 19: Definition of a PIN Re-issue message

Action code	Record type	Description	Number
13	03	Card import record (see section 2.6)	1: Mandatory

This is an example of a free-standing record (see section 1.2).

The PIN re-issue record must contain the following fields (defined in section 2.6): `instcode`, `custcode`, `pan`, `seqno`, and `urgent`. All other fields are ignored.

3.12. Card Replace (due to fraudulent use)

This message type is used to place a card record into a Card Production batch so that a card may be replaced due to fraudulent activity on the card, but where the card has not been lost or stolen.

See section 3.10 for "Card Replace (lost/stolen)"

Table 20 provides a definition of the Card Replace message (for fraudulent use).

Table 20: Definition of a Card Replace message (for fraudulent use)

Action code	Record type	Description	Number
14	03	Card import record (see section 2.6)	1: Mandatory

This is an example of a free-standing record (see section 1.2).

3.13. New Card

This message type is used to transfer customer, card, and account details to the Cortex database, and the corresponding card to be placed into a card production batch.

Table 21 provides a definition of the New Card message.

Table 21: Definition of a New Card message

Action code	Record type	Description	Number
21	01	Customer record (see section 2.5)	1: Mandatory
21	02	Account record (see section 2.6)	1 or more: Mandatory
21	03	Card import record (see section 2.6)	1: Only Mandatory
21	12	Postal address record (see section 2.8)	1 or more: Optional

This is an example of a record set (see section 1.3).

The mandatory fields in the customer record (see section 2.5) are those defined for the Add Customer message (see section 3.1). The mandatory fields in the account records (see section 2.6) are those defined for the Add Account message (see section 3.2). It is not an error for the account(s) to exist already in the database. The `custcode` field in the account record(s) must match the `custcode` field in the customer record. The mandatory fields in the card records (see section 2.6) are those defined for the Add Card message (see section 3.3). All the cards are linked to all the accounts, as well as to the primary accounts referenced in the card records themselves.

The mandatory fields for the address records are specified in the respective record definitions. It is an error to attempt to link addresses to non-existing cards. However an address may be linked to a card when the card is created when the address record is defined as part of the record set.

Appendix A: CORTEX Status Codes

Card Status Codes

The codes defined in the table below are those card status codes defined on CORTEX as standard. Please note that additional status codes may be defined by the user as required.

Code	Description	Response Description	Action/ Rsp code
00	Normal	Authorise	0/00
01	PINs tries to exceed	Deny (PIN tries exceeded)	1/06
02	Not yet issued	Deny (Card not effective	1/25
03	Card expired	Deny (Card expired)	1/01
04	Lost	Deny and pick up card (Card lost)	2/08
05	Stolen	Deny and pick up card (card stolen)	2/09
06	Customer closed	Deny and pick up card	2/00
07	Bank Cancelled	Deny and pick up card	2/00
08	Fraudulent Use	Deny and pick up card (suspected fraud)	2/02

3.14. Account Status Codes

The codes defined in the table below are the standard account status codes defined on CORTEX. Please note that additional status codes may be defined and the action code / response codes may be modified by the user as required.

Code	Description	Response Description	Action/ Rsp code
00	Normal	Authorise	0/00
01	Not yet used	Authorise	0/00
02	Statement undelivered	Authorise	0/00
03	Not used for X months	Authorise	0/00
04	Over limit	Deny with insufficient funds	1/16
05	Delinquent 30 days	Authorise	0/00

06	Delinquent 60 days	Authorise	0/00
07	Delinquent 90 days	Authorise	0/00
08	Delinquent 120+ days	Authorise	0/00
09	Debit Recovery	Authorise	0/00
10	Use Fraudulently	Deny (Pick up card)	2/02
11	Customer deceased	Reject Contact acquirer	1/03
12	Customer closed	Reject (do not honour)	1/00
13	Bank Cancelled	Deny (Pick up card)	2/03

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