



Rue lac Ghar El Melh  
Les berges du lac  
1053 Tunis - Tunisie  
Phone : +216 71 962.030  
Fax : +216 71 961.299  
www.bfigroupe.com



**Ref.:** BFI.WAMI.11062010. PARTGUI.1.0.0

Author : BFI

Date: 11/06/2010

# **ACP / ACH PARTICIPANT GUIDE**

Version : 1.0.1

141 pages

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 1/141</b>			



**This document is the intellectual property of BFI.  
It cannot be recopied, sold, nor given, entirely or by extract, neither in  
any way nor via any media, without the prior and written authorization  
of BFI.**

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 2/141</b>			

**Writing, Editing and Approval of this document**

WRITERS		AUDITORS		APPROVERS	
NAMES	DATE	NAMES	DATE	NAMES	DATE
BFI	11/06/2010	BFI		WAMI	

**Diffusion**

FOR ACTIONS			FOR INFORMATION	
NAMES	INSTITUTION	NAMES	INSTITUTION	
Project Team Central Bank of The Gambia	Central Bank of The Gambia			
Project Team Bank of Sierra Leone	Bank of Sierra Leone			
Project Team Central Bank of Guinea	Central Bank of Guinea			
Participating Institutions				

**Versions History**

VERSION	WRITERS	COMMENTS
<b>1.0.0</b>	<b>BFI</b>	Document development
<b>1.0.1</b>	<b>BFI</b>	<p><b>07102010 : update of the document</b></p> <ul style="list-style-type: none"> <li>- Implementation plan update (page 81)</li> <li>- MICR separators explanation for CMC7/E13B (page 86 )</li> <li>-Removal of the description of the state code of the MICR code line (page 86)</li> <li>- correction of accumulated and global data files names (page 112)</li> <li>- Addition of Logical and regulatory controls (see Logical and regulatory controls document).</li> </ul>

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 3/141</b>			

## Table of contents

<b>I.</b>	<b>Introduction .....</b>	<b>7</b>
I.1	Common definitions .....	7
I.2	files extensions .....	12
<b>II.</b>	<b>Presentation of the project.....</b>	<b>14</b>
II.1	Project Context.....	14
II.2	Project Objectives.....	14
II.3	Project Components .....	15
II.4	Project Steering committees .....	16
II.4.1	Prerequisite Monitoring Committee.....	16
II.4.2	National Banks Project Teams .....	16
II.5	Project presentation .....	17
<b>III.</b>	<b>Functional description of the ACP/ACH system .....</b>	<b>19</b>
III.1	General aspects .....	19
III.1.1	Countries and currencies codes .....	19
III.1.2	participants .....	19
III.1.3	Instruments.....	19
III.1.4	Transactions codes.....	20
III.1.5	Clearing Codes .....	21
III.1.6	Instruments Parameters .....	22
III.1.7	Exchange day Schedule.....	23
III.2	Architecture and flow diagram for the clearing process .....	26
III.2.1	Outgoing clearing process.....	26
III.2.2	Incoming clearing process.....	27
III.3	Functional description of the solution (ACP-ACH) .....	28
III.3.1	Barberousse capture (Scanning module).....	28
III.3.2	Barberousse GenerateurCles (Branch Key generator) .....	42
III.3.3	Functional description of Barberousse GIP .....	43
III.3.4	Barberousse GenerateurCles (Head office Key Generator) .....	48
III.3.5	Functional description of Hannibal-Autocollecte .....	49
III.3.6	Hannibal -ADT .....	53
III.3.7	Functional description of the module Poste Adherent.....	68
<b>IV.</b>	<b>Implementation plan .....</b>	<b>81</b>
<b>V.</b>	<b>Prerequisite to the system implementation .....</b>	<b>85</b>
V.1	Cheque standards .....	85
V.1.1	Paper Cheque Dimensions and weight .....	85
V.1.2	Cheque MICR Structure .....	85
V.1.3	MICR Codeline format.....	86
V.2	Account number Format (BBAN) .....	88
V.2.1	BBAN codification .....	88

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 4/141</b>			

<b>V.3</b>	<b>Check Digits (MODULO 97)</b> .....	<b>88</b>
V.3.1	Account Check digit (MODULO 97) .....	88
V.3.2	MICR check digit (MODULO 97).....	89
<b>V.4</b>	<b>Exchange management</b> .....	<b>91</b>
V.4.1	Exchange Formats.....	91
V.4.2	Files controls .....	93
<b>V.5</b>	<b>Equipments</b> .....	<b>96</b>
V.5.1	provided equipments by Central Banks .....	96
V.5.2	Equipments to be acquired by Participants .....	97
<b>V.6</b>	<b>Network</b> .....	<b>98</b>
<b>V.7</b>	<b>Security</b> .....	<b>98</b>
V.7.1	Physical access security.....	98
V.7.2	Network security.....	99
<b>VI.</b>	<b>Files Exchange with CBS</b> .....	<b>100</b>
<b>VI.1</b>	<b>Exchanges between branch modules and the cbs</b> .....	<b>100</b>
VI.1.1	Branch core banking system to Branch modules .....	100
VI.1.2	Branch modules to Core banking system .....	103
<b>VI.2</b>	<b>Exchanges between the head office Modules and core banking system</b> .....	<b>104</b>
VI.2.1	Core banking system To head office modules .....	105
VI.2.2	head office modules To Core banking system .....	106
<b>VII.</b>	<b>Project Team Assignment</b> .....	<b>109</b>
<b>VIII.</b>	<b>Trainings</b> .....	<b>109</b>
<b>VIII.1</b>	<b>Training provided by BFI</b> .....	<b>109</b>
VIII.1.1	Users training.....	109
VIII.1.2	Administrators training.....	110
VIII.1.3	Technical training.....	110
VIII.1.4	Installer training.....	110
<b>VIII.2</b>	<b>Training provided by participants</b> .....	<b>111</b>
<b>IX.</b>	<b>Annexes</b> .....	<b>112</b>
<b>IX.1</b>	<b>Name structure of DATA file (.DATA)</b> .....	<b>112</b>
IX.1.1	Individual DATA file Name (.DATA) .....	112
IX.1.2	Accumulated DATA file Name (.DATA) .....	112
IX.1.3	Global DATA file Name (.DATA) .....	112
<b>IX.2</b>	<b>Name structure of (.ENV/ RCP) Files</b> .....	<b>112</b>
<b>IX.3</b>	<b>CAT &amp; PAK IMAGE file name structure</b> .....	<b>113</b>
<b>IX.4</b>	<b>Names structure of other files issued by the ACH</b> .....	<b>113</b>
IX.4.1	Name structure of regulatory rejection files (.RJT) .....	113
IX.4.2	Name structure of detailed Net Balances .....	113
IX.4.3	Global Net Balance file name structure .....	114
IX.4.4	Structure of the settlement schedule file name (.ECH) .....	114
IX.4.5	Structure of the report file name (CRS/CPR) .....	114
IX.4.6	Structure of the Transactions report file name (CRO) .....	115
<b>IX.5</b>	<b>Presentations, rejection and cancellation data file structure</b> .....	<b>116</b>

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 5/141</b>			

IX.5.1	Data file structure (.Data) .....	116
IX.5.2	Direct Credits/ Represented Direct Credits ENV/RCP files .....	119
IX.5.3	Foreign direct credit ENV/RCP files.....	121
IX.5.4	Direct Debits ENV/RCP files .....	123
IX.5.5	Cheques .....	127
IX.5.6	BILL OF EXCHANGE.....	129
IX.5.7	Card Transactions .....	132
IX.5.8	Free message .....	134
IX.5.9	Non payment Notice.....	135
IX.5.10	Fund recovery Notice.....	137
IX.5.11	Technical rejection structures.....	140
IX.5.12	Report structures .....	140

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 6/141</b>			

# I. INTRODUCTION

This document is a **guide for participants** which will help them having an overview on the new ACP/ACH system. It will also help those identifying changes that have to be managed during the implementation of the new system.

This document will discuss the following topics:

- Project context
- System overview
- New Standards Exchange formats
- Functional description of the participants modules
- Project schedules and phases
- Participants prerequisites

## I.1 COMMON DEFINITIONS

- **ACP:** Automated Cheque Processing.
- **ACH:** Automated Clearing House.
- **Accumulated image file:** file containing a set of generated images from the session beginning till a given moment.
- **AET :** Accounting Ending Time;
- **ADT:** Automatic Data Treatment: module which enables automatic processing of image files and Data files received from the core banking system or the bank’s branches.
- **Alteration:** modification or loss of data in a cheque or bill of exchange image.
- **Amount limit for sending Images:** amount below which CAT and PAK files aren’t sent to the bank’s head office.
- 
- **Asymmetric algorithm RSA:** Algorithm enabling data and images encryption with a public key and decryption with a private key.
- **Authentication:** verification of the cheque or bill of exchange image integrity.
- **BBAN:** Basic Bank Account Number.
- **Blocking Control:** A control that in case of failure blocks the concerned operation.
- **BOE:** bill of exchange.
- **Capture:** Cheque scanning process.

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 7/141</b>			

- **Cancellation period:** number of working days, from the presentation date, during which the remitting participant may cancel the operation.
- **CBS:** Core banking system.
- **Clearing House:** An Inter-bank system for the exchange of payment means that participating institutions convene to pay through;
- **Collection:** Transfer, of files from the participating institution mailboxes to the clearing House mailbox.
- **Compressed file (triplicate):** Triplicate of files (.ENV .CAT and .PAK) compressed in a unique file.
- **Current key:** key used in images signature and authentication.
- **Debit limit (multilateral/bilateral):** Maximum multilateral and bilateral balances authorized between participating institution
- **Detail record:** record containing detailed information of a remittance operation.
- **Differential image file:** file containing a set of generated images during a given time range.
- **Direct Participating institution:** It is a participating institution which is connected to the Clearing House through its own platform and which is responsible for financial commitments versus other participating institutions, through its settlement account held at the central bank.
- **Duplication :** Two scanned or presented documents having the same identifier (MICR codeline)
- **Doubles:** Two cheques that pass together in the same time in the scanner.
- **Elementary image file:** file containing only one image.
- **Encryption:** Mathematical process that transforms an original message into an unusable string of characters seemingly random, but is actually fulfils precise mathematical rules.
- **Endorsement:** text automatically printed by the scanner on the paper instrument reverse side.
- **Exchange Ending Time: (EET)** Time at which instruments' exchanges ends.
- **Exchange Starting Time:** time at which instruments' exchanges starts.
- **Exchange period:** period during which exchanges may be done.
- **FIFO:** first in first out.

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 8/141</b>			



- **FTP:** File transfer protocol.
- **General Clearing Summary Statement:** Daily balance statement for the exclusive usage of the Central Bank. For every participating institution, it states for each payment instrument the number and total amount of received transactions and remitted transactions. the statement notifies also the net balance for each participating institution;
- **Global image file:** file containing all images generated during a session.
- **Global record:** record containing global information of all operations in the remittance.
- **Hash:** Irreversible mathematical function which generate a fixed size string from documents of variable sizes.
- **Indirect Participating institutions:** Known by the Clearing House, they hold payment accounts but use direct participating institutions' technical infrastructure for their exchanges with the Clearing House. They are financially liable for all exchanges and their payments ;
- **Instrument:** means of payment or type of operations which can be treated by the Clearing House.
- **Instrument code:** Code used in the exchange files format with the clearing house to define a payment instrument.
- **Image:** Physical image of the scanned instrument through a scanning process.
- **Inter-bank transaction:** transaction which counterparts are other banks;
- **Intra-bank transaction:** transaction which counterparts are other branches form the same bank;
- **IP Address:** unique numeric field for each machine identifying it on the network.
- **IPC:** Incident Payment Central.
- **JPEG format:** Image compression standard format.
- **Key:** string representing the encryption algorithm input parameter.
- **Keys archiving:** storing keys in a database.
- **Logical control:** it contains all control related to the banking contain of a remittance.
- **Main feeder:** entrance way of the scanner.
- **Mail Box (BAL):** It is the folder where the clearing house (ACP/ACH) deposits/recovers all messages sent to /deposited by a given participating institution:

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 9/141</b>			

- **OUT BOX:** Remittance sending mail box;
- **IN BOX** : Remittance receiving mail box;
- **TMP Box:** Temporary mailbox used by an application.
- **MICR codeline:** Magnetic marking area at the bottom of the cheque or the bank draft (CMC7 or MICR E13B).
- **National Clearing House** : Clearing house which handles intra-country transactions (images and data)
- **New key:** Newly generated key which starting validity date has not yet arrived.
- **Net balance per participating institution:** Daily balance reflecting the electronic clearing position by nature of instrument and by remitter. It defines for each instrument and for each participating institution:
  - The number and total to pay to other participating institutions;
  - The number and total rejections to other participating institutions;
  - The number and total to collect from other participating institutions;
  - The number and total rejections from other participating institutions;
- **Net balance position:** creditor or debtor net balance position.
- **Non financial message:** Exchanged messages in the Clearing House with no impact on participating institutions' accounts. There are 4 types of non financial messages:
  - **System Information Message:** system information message sent by the Clearing House to one or more participating institutions (for example : informing about a participating institution exclusion/suspension) ;
  - **Free message:** exchanged between participating institutions;
  - **Non Payment Notice:** special notice accompanying a rejection in case of use of a special rejection motive.
  - **Funds Recovery Notice:** notice which will be sent to inform the beneficiary's bank about the recovery of funds of an already rejected operation
- **Operation code:** Code adopted by the Clearing House's exchange format to define the type of operation;
- **Operation identifier:** A set of data identifying an operation in a unique way.
- **Paper draft:** Physical paper of a cheque or a bill of exchange.

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	<b>11/06/2010</b>
		<b>Page 10/141</b>	

- **Paper jam:** blockage of a cheque or a bill of exchange in the scanner during scanning.
- **Participating institution's Platform:** This is a set of hardware and software enabling participating institutions to have access to the clearing network.
- **Participating institution:** Each participating institution sending or receiving to/from its customers payment instruments exchanged through the Clearing House. Participating institutions hold current accounts at the Central Bank where transactions on their clearing balances are settled.
- **Poste-Adherent:** Installed at the level of the direct participating institution platform, the module **Poste-Adherent** represents the first and unique access point to the Clearing House. All exchanges between the central system and the participating institutions pass through the **Poste-Adherent**.
- **PKCS Standard:** Standard encryption protocol based on a public key.
- **Public key:** Authentication key known by all the recipients.
- **Private Key:** Secret signature key known only by the sender.
- **Transaction code:** It is the code indicating the type of transactions being processed: a presentation, a rejection, a cancellation or cancellation of rejection.
- **Receiving bank:** Remitting bank's counterpart i.e. to which remittances are addressed.
- **Reconciliation:** comparison between two files.
- **Regional Clearing House:** Clearing house which handle cross-country transactions (images and data)
- **Regulatory control:** Includes all controls related to the compliance with regulatory obligations of the operations. Including some of the history of the database.
- **Rejection Period:** number of working days allowed from presentation date to rejection date.
- **Rejection feeder:** feeder on the scanner where instrument being presented anomalies are sent during scanning.
- **Remittance or batch:** File containing transactions of the same nature (same operation code), the same currency and the same settlement date, addressed to one or several banks.
- **Remitting bank:** A Bank which prepares remittances of transactions received from its client;

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 11/141</b>			

- **Remittance identifier:** A set of data identifying a remittance in a unique way.
- **Representing a remittance:** Second presentation of a remittance after a rejection or cancellation.
- **RTGS:** Real Time Gross Settlement system
- **Sending:** transfer of files by Autocollecte from the Clearing House to the participating institutions' mailboxes.
- **Settlement date:** Date on which an operation is settled. It is expressed under the D + n form, where D is the presentation day and n the settlement period.
- **Settlement period:** Number of working days between from the instrument presentation day for clearing to its settlement date.
- **Signature:** Encrypting a compact with a private key.
- **Sub-participating institution:** An Institution that participates in the clearing process through a direct or indirect participating institution with which it contracts an agreement. The sub-participating institution does not hold a settlement account at the central bank. The participating institution that represents the sub participant assumes the financial commitments of this latter.
- **SSL:** Secure socket layer, secure protocol for point to point exchange
- **SSL port:** SSL input or output port.
- **Symmetric Algorithm DES:** Algorithm enabling encryption and decryption with the same key (Triple DES key).
- **Syntactical control:** Includes all controls related to the remittance format: record structure control and completeness control.
- **Technical rejection:** Rejection of non-complying batches further to the Syntactical control and a data coherence control.
- **Triple DES key:** Key used in files decryption and encryption with the symmetric algorithm DES.
- **Value date, settlement date:** Date on which a given operation is settled on the concerned banks' settlement accounts. It is expressed in the form of **D + n**, where **D** represents the presentation to clearing day of the instrument and **n**, the payment deadline.

## I.2 FILES EXTENSIONS

- **CAT:** Catalogue or Index file describing the package file containing the images.
- **.CPR:** Global End of the day report file.

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 12/141</b>			

- **.CRS:** Global End of the session report file.
- **.DATA:** data file generated by the scanning application.
- **.ECH:** settlement schedule file.
- **.ENV: outgoing** Remittance addressed to the clearing house.
- **.FCT:** Invoice file.
- **.MIS:** File containing a system information message.
- **PAK :** Package file, including digital images concatenated;
- **.RCP:** incoming Remittance received from the clearing house.
- **.RJT:** Regulatory rejection remittance sent by the clearing house.
- **.SND:** Final net balance. Summary for each instrument containing the number and the total amount of all operations of the day.
- **.SNF:** End of session net balance, summary for each instrument, containing the number and the total amount of all the operations of the session.
- **.SNI:** Intermediate net balance, included for each instrument, net balances calculated from the beginning of the day till the moment it is generated.
- **.SIG:** Global intermediate net balance included for all instrument, bilateral balances from the beginning of the day till the moment it is generated.
- **.SFG:** Global end of the session net balance, summary, for all instruments included, bilateral balances for all operations of the session and the global net balance of the session.
- **.SNG:** Global net balance, summarize for all instruments included, the bilateral balances of all operations of the day and the end of the day global balance.
- **.SIV:** Global intermediate net balance per instrument, summary for each instrument type (presentation and representation included), the calculated net balance from the beginning of the day till the moment it is generated.
- **.SFV:** Global end of session net balance per instrument, summarize for each instrument type (presentation and representation included), bilateral balances for all operations of the session and the session balance.
- **.SDV:** Global definitive net balance per instrument, summary for each instrument type (presentation and representation included), the bilateral balances for all the operation of the day and the day's balance.
- **.STG:** Regulatory rejection statistic file.
- **.STI:** Institution statistics file.

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 13/141</b>			

- **.STJ:** day's statistics file.
- **.STR:** Rejection statistics file.

## II. PRESENTATION OF THE PROJECT

### II.1 PROJECT CONTEXT

At the start of 2009, the West African Monetary Institute (WAMI) launched a project to develop a payments system in the West African Monetary Zone (WAMZ) in order to prepare the transition to a single currency.

One of the components of this project concerns the implementation of an Automated Cheque Processing System (ACP) and an Automated Clearing House System (ACH) to handle large volume and low value payment transactions in three of the WAMZ countries, namely The Gambia, Guinea and Sierra Leone.

The ACP system will be used to process paper instruments (mainly cheques).

The ACH module will clear electronic payments, including cheque data from the ACP system, together with electronic direct debits and direct credits. The aggregated ACH transactions will be settled in the Real Time Gross Settlement (RTGS) system”.

By the end of February 2010, BFI was chosen for the implementation of this system.

### II.2 PROJECT OBJECTIVES

The ACH module will provide an efficient, low-cost batch payment service that enables electronic exchange of debit and credit payment transactions for personal and corporate clients.

The ACH module will be used for recurring payments such as salaries, insurance premiums, and utility payments.

As inputs to the ACH will be from banks using pre-defined and well-tested formatting, the acceptance rate will be usually high and most payment instructions will be settled with minimum human intervention.”

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 14/141</b>			

An ACP system will also be implemented allowing cheque images dematerialization, and ensuring their authenticity at any processing level. ACP will also allow submitting cheque data electronically to the ACH module.

The ACP system will provide the following advantages:

- Reduce the current clearing cycle for cheques, with capability to support clearing within the same day for all cheques regardless of their presenting location in the country,
- Avoid physical transportation of cheques from the presenting bank to the clearing house and the issuing bank for validation and verification.
- Maintain one Electronic clearing House for each country: Manual clearing houses will be progressively closed after the new system starting.
- Increase confidence in the banking system: Modernization of laws, rules and regulations to ensure rights and obligations of all participants and users to the system.
- Facilitate the access for new entrants (micro-finance, savings banks) with Standardization, and improve the working methods between existing participants.
- Reduce the use of cash in trading and strengthen confidence in the banking transactions. The public has a strong habit of using cash payments for various reasons. This will lead to reduce risks related to cash money.
- Increase the bankarization rate to enable the greatest number, particularly in rural and small enterprises, to access banking services equally and fairly.
- Developing new payment means that meet needs and interests of users and that use safe and operational technologies.

## II.3 PROJECT COMPONENTS

- **Central bank of the three countries:** owner and administrators of the system
- **WAMI :** purchaser of the system and guarantor of the good implementation of the system
- **Logica:** assist the WAMI and the Central Banks during all phase of Implementation
- **Participating Institutions:**
  - Commercial banks
  - Central banks
  - Post office , The Treasury
  - Other financial institutions
- **BFI:** supplier and integrator of the system.

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>• Draft</li> <li>• To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 15/141</b>			

## II.4 PROJECT STEERING COMMITTEES

### II.4.1 PREREQUISITE MONITORING COMMITTEE

- **Mission**

The prerequisite monitoring committee examines progress in terms of execution of prerequisites (computer systems, organizational aspects, networks, etc.) that are required for the implementation of the whole system.

- **Organization**

This Committee includes:

- Representatives of the WAMI,
- Representatives of Central banks,
- Representatives of participating institutions ,
- Representatives of BFI,
- Representatives of Logica.

This committee meeting will be scheduled by WAMI

Meeting location is chosen by the WAMI (in WAMI's premises or in one of the three countries). Exceptional meetings may be initiated whenever necessary.

### II.4.2 NATIONAL BANKS PROJECT TEAMS

A project team is set up at the level of each Central Bank (Gambia, Guinea and Sierra Leone).

- **Mission**

Under the responsibility of the Project Manager, this Central bank team will be in charge of the implementation of the project in the concerned country, jointly with the BFI team. In this regard, it is responsible for:

- ✓ Organizing and planning working groups ;
- ✓ Managing relationships between internal operators (computer experts, users) and BFI project manager;
- ✓ Supervising the implementation of prerequisites at the national level;
- ✓ Managing problems (look after the 'solving' task: find solutions to problems);
- ✓ Follow up of tests and solution commissioning;
- ✓ Pre-validate deliverables to be submitted to the Project Committee;
- ✓ Participate to the Project's progress meetings with BFI to monitor and process current and pending issues;
- ✓ Plan and monitor the on-time training execution;

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 16/141</b>			



- ✓ Supervise the updating of methods, standards and procedures;
- ✓ Implement a help and assistance system for end users.

• **Organization**

This team includes:

- ✓ Permanent members:
  - Central bank Project manager ;
  - Computer technicians ;
  - Organizers ;
  - Users (future trainers) responsible for solution modules ;
  
- ✓ Non permanent members :
  - Inspection and audit manager ;
  - Human resources manager.
  - Any other needed person

## II.5 PROJECT PRESENTATION

Clearing is only based on electronic exchanges between the institutions and the clearing house. Each transaction will be dematerialized by the remitting bank under a standard formatted record containing all information allowing its control and accounting. There will be no need of physical movement of bank agents to the clearing house.

The remitting Institution will also have to scan cheques and bills of exchange (both sides image scanned) and to transmit this scan to the clearing house along with the clearable record.

The clearing house will process received transactions irrespectively whether on-site, off-site and displaced. All transactions are unwounded on the same periods.

The clearing house controls received remittances, prepares the return remittances and updates the balance positions of participants. The net balances are sent once a day for settlement to the real time gross settlement system (RTGS). Settlement will therefore be made for each participant on its single settlement account.

The clearing house continuously sends return remittances to recipient participants during the same day.

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 17/141</b>			



When receiving incoming remittances, the recipient participants perform the usual checks (signatures, funds) on the images display basis (of the cheque and bill of exchange) and decides whether it accept the transactions or reject it. Four rejection reasons can be entered for each received transaction.

Rejections are sent back by the receiving institution to the clearing house during a rejection period. The non receipt of any rejection by the end of the rejection period means that the transaction is definitely settled.

The Clearing house archives all processed images and data for a defined period. Access to archived data and images will be done through a central web server dedicated to this purpose.

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 18/141</b>			

## III. FUNCTIONAL DESCRIPTION OF THE ACP/ACH SYSTEM

### III.1 GENERAL ASPECTS

#### III.1.1 COUNTRIES AND CURRENCIES CODES

Country	Code	Country Abbreviation	Currency Name	Currency code
THE GAMBIA	01	GM	Dalasi (GMD)	270
SIERRA LEONE	05	SL	Leone (SLL)	694
GUINEE CONAKRY	03	GN	Guinean Franc (GNF)	324

#### III.1.2 PARTICIPANTS

Participant to the clearing system may intervene through different status:

- **Direct Participating institution:** It is a participating institution which is connected to the Clearing House through its own platform and which is responsible of financial commitments towards other participating institutions, through its settlement account held at the central bank.
- **Indirect Participating institutions:** Known by the Clearing House, they hold payment accounts but use direct participating institutions' technical infrastructures for their exchanges with the Clearing House. They are financially liable for all exchanges and their settlement;
- **Sub-participating institution:** Does not hold settlement account at the central bank but participates in clearing process through a direct or indirect participating institution with which it contracts an agreement. It is the representing participating institution that assumes the financial commitments of the sub-participating institution through its own settlement account at the central bank.

#### III.1.3 INSTRUMENTS

The instruments which will be accepted in the ACP/ACH system are:

- Financial instruments :
  - Direct Credit (Code 10);
  - Foreign direct Credit (Code 12);

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 19/141</b>			

- Represented direct Credit (Code 13);
  - Direct debit (code 20);
  - Represented direct debit (code 23);
  - Cheque (code 30);
  - Represented cheque (code 33);
  - Bill of exchange (code 40);
  - Represented bill of exchange (code 43);
  - Card transaction (code 50);
  - Represented card transaction (code 53);
- Non Financial Instruments
    - Free message (code 61);
    - Non payment notice (code 62);
    - Funds recovery notice: (code 83).

### III.1.4 TRANSACTIONS CODES

Transactions codes that a participating institution can present or receive are the following:

#### III.1.4.1.1 Presentations: code 21 (First presentation of a transaction for clearing)

- First presentation of a transaction for clearing
- ENV files containing all operations presented by a participating institution, per payment instrument (instrument code) and per transaction code;
- No limit exists on the remittances number of the same instrument that a participating institution can present during a clearing day.

#### III.1.4.1.2 Rejections: code 22 (on previously received transactions)

- Rejection must be generated in separate remittances and must contain all information about the initial transaction to be rejected;
- rejecting a transaction by a recipient bank, may be done for:
  - Technical reasons which impede the recipient bank from knowing the amount to pay or exact account number of the payer or to check the transaction validity, (Unreadable image, etc..);
  - Banking reasons which impede the bank from completely settle the transaction (insufficient funds, unauthorized signature, closed or blocked account, etc...).

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 20/141</b>			

- Rejections must be sent to the clearing House during the rejection period related to the payment instrument , the rejection period starts from the presentation date of the transaction; rejections which are sent after the rejection period are automatically rejected by the Clearing House (late rejection) ;
- Rejections must not be sent to the Clearing House before the rejection starting day related to the payment instrument. rejections sent before that day are automatically rejected by the Clearing House (Early rejection) ;
- Rejections must contain the initial operation references.

**III.1.4.1.3**     *Cancellations code 23 and 24 (of already presented or rejected transactions)*

- Cancellations must be generated in separate remittances and must contain all information about the initial transaction to be cancelled (presentation, rejection or representation remittance);
- Cancellations must be sent to clearing House during the cancellation period corresponds to their instrument code. Cancellations which are sent after the cancellation period are automatically rejected by the Clearing House (late cancellation).

**III.1.5**      **CLEARING CODES**

- Intra Bank transactions: Code 00: transactions which payer and beneficiary belong to the same bank (of the same country) Transactions between a direct participant and his sub-participant are also considered as intra Bank transactions.
- National Inter Bank transactions: Code 01: transactions which payer and beneficiary belong to two different banks of the same country (2 direct participants or one direct and one indirect participant.
- Regional Inter Bank transactions: Code 02: transactions which payer and beneficiary belong to two different banks of two different countries.

**NB:** Banks belonging to the same Group and operating in separate countries are considered as two different banks.

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 21/141</b>			

### III.1.6 INSTRUMENTS PARAMETERS

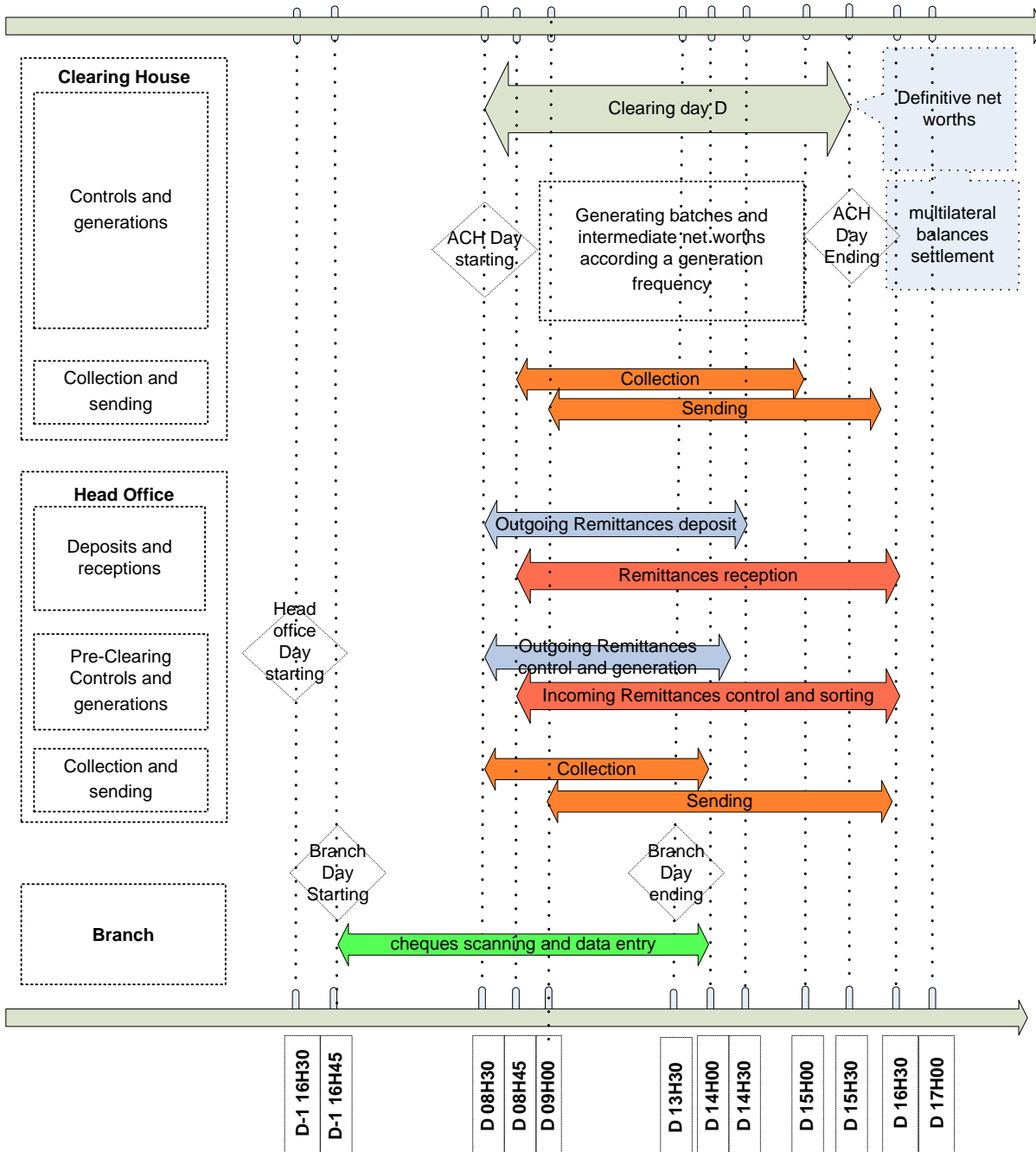
		Settlement Period	Rejection period	Starting rejection period	Maturity period	Cancellation Period
10 / 12 / 13 /	Direct Credits Presentation / Foreign Direct Credit / Direct Credit Representation	D	D to D+1	D	-	D
20 / 23 /	Direct Debit Presentation / Direct Debits Representation	D	D to D+1	D	D	D
30 / 33 /	Cheques Presentation / Cheques Representation	D	D to D+1	D	-	D
40 / 43 /	Bill of exchange presentation / Bill of exchange Representation	D	D to D+1	D	D	D
50 / 53 /	Card transaction presentation / Represented Card transaction	D	D to D+1	D	-	D
61 / 62 / 83 /	Free Messages / Non payment notice / Fund recovery notice	-	-	D	-	

D = Clearing Day

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 22/141</b>			

### III.1.7 EXCHANGE DAY SCHEDULE

This schema is an example of clearing day schedules that can be adopted. All schedules are parameters that can be changed if needed.



#### III.1.7.1 At the branch level

As soon as the branch receives the new "date" file (16h30 of D-1 maximum), it can proceed to the starting of the new day (D). All transactions that will be processed will be kept in the

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 23/141</b>			

branch Mailbox and will be collected by the head office at the collection starting time (08H30 of D).

Transactions to be send to clearing can be processed in the branch until shortly before the head office collection ending time (14H00 of D).

The branch will start receiving inter bank and intra bank remittances from the head office since the HO starting sending time (09H00 of D) till the HO ending sending time (16H30 of D).

### III.1.7.2 At the head office level

- Collection of files: During the HO collection period (08:30 to 14:00 of D), the head office will collect all files created at branch’s level in order to control them and integrate them in the remittances to be sent to clearing. Files coming from the CBS will also be processed during the same period.

Last remittances will be generated by the head office at the end of the generation period (14:15).

Remittances deposit for clearing can be done during the deposit period (08:30 to 14:30 of D): Each deposited remittance will be controlled, encrypted, compressed and placed in the Out mailbox of the head office.

- Reception of files: the head office will start receiving Files from the clearing house since the ACH starting sending time (09:00 of D) till the ACH ending sending time (16:00 of D).these files are controlled and sorted by branch and then sent to branches for payment (or rejection)

- Sending of files: the sending can be done during the HO collection period (09:00 to 16:30 of D), f sorted files to be sent to branches.

### III.1.7.3 At clearing house Level: controlling batches, processing and sorting by recipient participant

- Collection of files: During the ACH collection period (08:30 to 14:00 of D), the Clearing house will collect outgoing remittances created at head Office level in order to control them and integrate them in the clearing processing. Rejected files are sent back to the remitting participant.

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 24/141</b>			





- Generation of return remittances: during the generation period (08:30 to 15:00 of D), the clearing House will continuously send return remittances and intermediate net balance to the recipient participants.

At the End of the Clearing day (15:30 of D): the clearing house generates files to all participating institutions:

- Final net balances containing presented, cancelled, and rejected instruments during the clearing day.
- Processing reports,
- Last Return remittances.

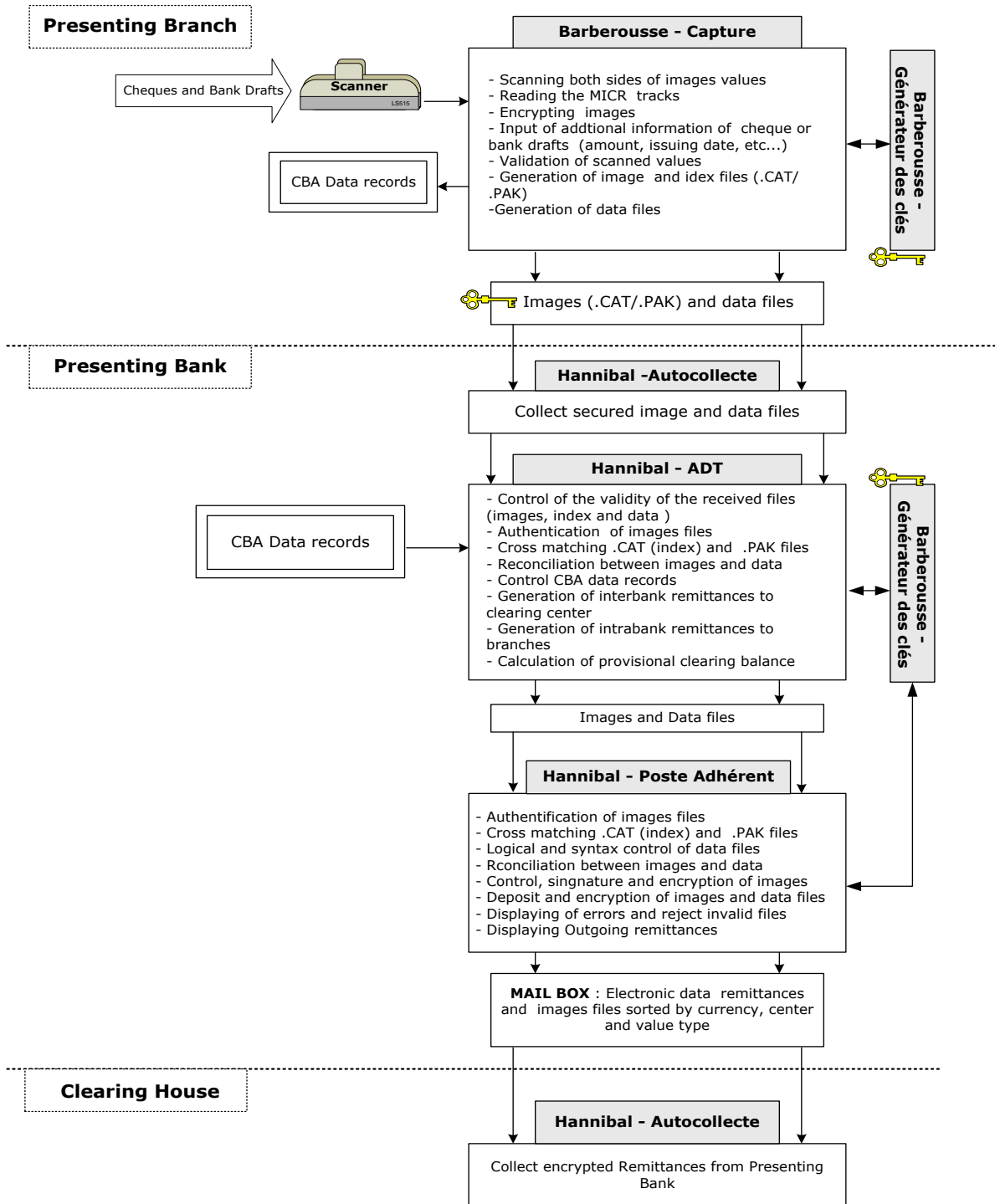
Sending of return files to recipient participants will last till the ACH sending ending time (16:00)

Final net balances of different participating institutions are communicated to the RTGS system for settlement.

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 25/141</b>			

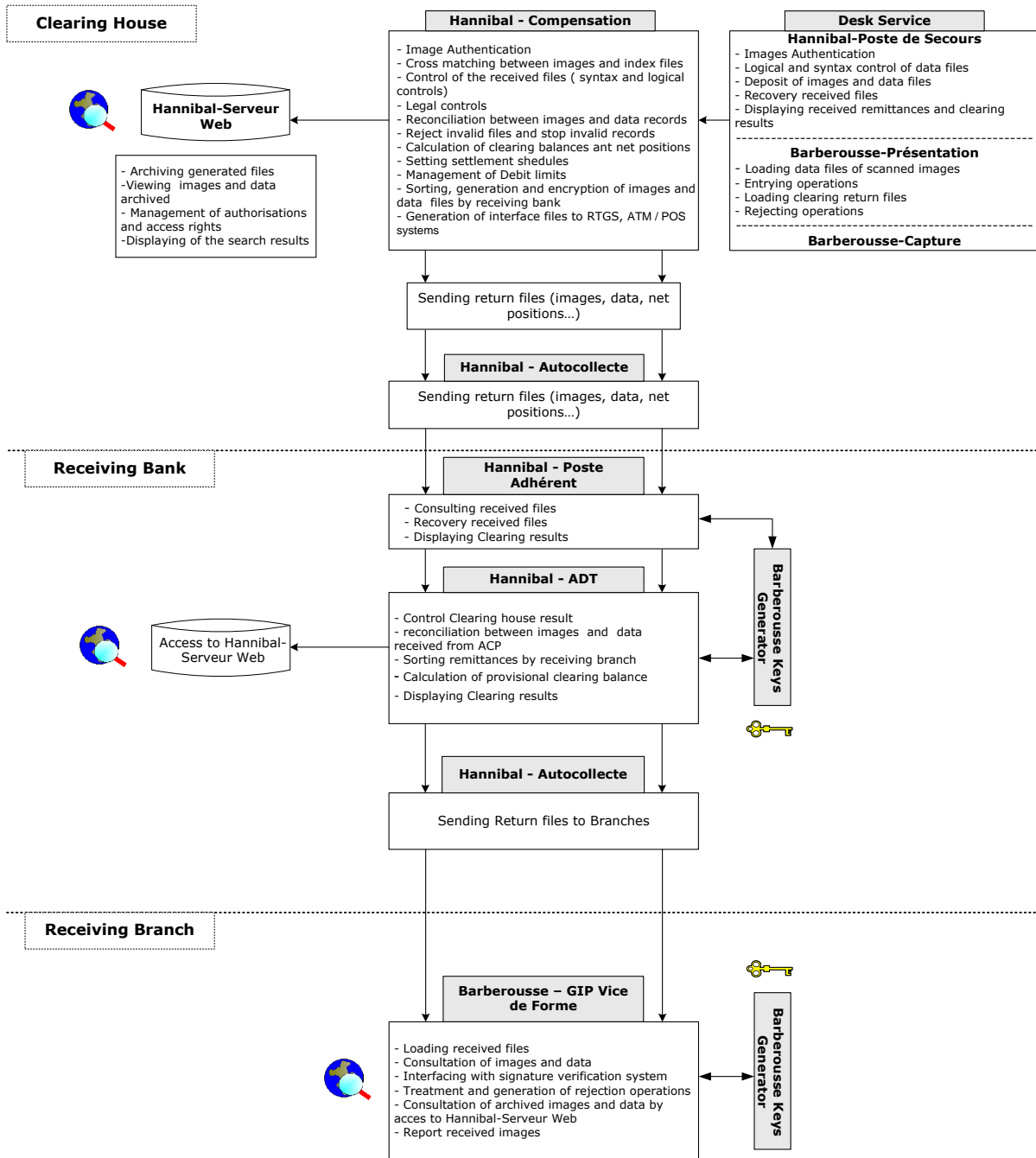
## III.2 ARCHITECTURE AND FLOW DIAGRAM FOR THE CLEARING PROCESS

### III.2.1 OUTGOING CLEARING PROCESS



<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft	<b>Date of update</b>	<b>11/06/2010</b>
	To be validated		
	• Validated	<b>Page 26/141</b>	

### III.2.2 INCOMING CLEARING PROCESS



<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft	<b>Date of update</b>	<b>11/06/2010</b>
	To be validated		
	• Validated	<b>Page 27/141</b>	

### III.3 FUNCTIONAL DESCRIPTION OF THE SOLUTION (ACP-ACH)

The participant platform is composed of the following modules:

#### Branches modules:

- **Barberousse Capture:** insure image values scanning and secure image files creation to send for clearing.
- **Barberousse Generateur-Cles:** Insure images and data security along the processing pool.
- **Barberousse-GIP** enables the viewing of inter-banking and intra-banking inward cheques and bills of exchange images, in the branch during the clearing day, and to generate the possible reject.

These modules are installed in branches. However, they can be installed at the head office as a centralized installation.

#### Head-office modules:

- **Hannibal-ADT/ADT Admin:** insure the preparation of the bank remittances to be sent for clearing, and reception of remittances coming from clearing.
- **Hannibal-Autocollecte:** enables files transfers, data and images from head office to branches and inversely.
- **Hannibal –Poste Adherent:** enables remittances deposit for clearing and reception of remittances sent by the clearing house.
- **Hannibal GenerateurCles:** Insure images and data security along the processing pool.

### III.3.1 BARBEROUSSE CAPTURE (SCANNING MODULE)

#### III.3.1.1 Presentation

The **Barberousse-Capture** software enables the scanning of payment instruments' values (cheques, drafts bills of exchange, etc). It may be installed at banks' branches or at the head office.

The main functionalities of Barberousse-Capture are:

- Scanning of both sides of payment instruments' (front and reverse).
- Reading MICR codeline, printing and endorsing text on the reverse side of the scanned paper;
- Manual input / loading of data related to scanned values
- Generating image files containing the image of both sides together (PAK file) and index files containing information related to the image (CAT file);

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 28/141</b>			

- Electronically signing of the images.
- Generating data files containing information of the scanned values;

### III.3.1.2 Functionalities

#### III.3.1.2.1 Access and authorization management

Access to the application is secured and different authorization levels may be granted to different groups and/or users of the application.

##### III.3.1.2.1.1 Groups, users and access rights management

A specific screen enables the system administrator to create, modify or remove users or groups.

Each user must be linked to a group and to a branch. By default, new users will always be linked to the installed bank and branch.

Access rights to the application may be customized per group or per user through a specific screen. An inheritance process ensures that the rights of a group are transferred to all the users in the group.

##### III.3.1.2.1.2 Password management

For accessing the application; each user will have a password which will be valid for a defined period of time. Two security levels of password setting are provided by the application:

- Standard Security Level: allowing free passwords setting for users.
- Enforced Security Level : Some security rules must be obeyed in password setting

Each participating institution can choose the password security level to apply in its branches.

#### III.3.1.2.2 Initialization of the day (Start of Day Process)

The initialization of the day is triggered when connecting to the application for a new scanning day:

The initialization consists of the following operations:

- loading the new scanning date;
- Checking validity of the electronic signature key for the new date and eventually loading the new electronic key;
- Checking and loading of any newly fixed data file;
- Deleting old scanned files from the branch mailbox related to the previous date.

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 29/141</b>			

### III.3.1.2.2.1 Loading the new scanning date

According to the system settings, the loading of the new scanning date is made either through the automatic loading of the date file or by manually entering the new date.

### III.3.1.2.2.2 Checking validity of the Electronic Signing Keys

This consists of checking the branch Key generator database (held by “**Barberousse-Generateur Cles**”) if a new key is received from the Head Office. If a new key is received, the scanning module will load this key for the new day.

Unavailability of any valid key blocks the initialization of the new day.

### III.3.1.2.2.3 The Fixed Data Loading

The Fixed data contains the management information of:

- The participating institution’s Bank codes, branch codes, participation mode and status,
- Holidays calendar,
- The currencies codes and status,
- The financial values codes and status.

### III.3.1.2.3 The scanning process

The application provides two scanning modes:

- Remittance mode: a remittance is a set of presented values having the same beneficiary;
- Batch mode: a batch is a set of presented values that may have different beneficiaries.

### III.3.1.2.3.1 First data entry

In the remittance scanning mode, the following data must be entered before starting the scanning:

- The remittance identifier : it may be either manually entered or automatically generated according to a sequence;
- The Beneficiary account number (BBAN): it may be either manually entered or selected from the accountholders list;

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 30/141</b>			

- The beneficiary name (it may be either manually entered or selected from the accountholders list).
- The remittance total amount;
- The total number of instruments;
- The instrument code;
- The currency code;
- Complementary information concerning the remittance.

It must be noted that when entering the beneficiary account number, the latter will be subject to the following controls:

- If the account existence control is activated, the entered beneficiary account number is checked on the accountholders list stored in the application database.
- If the account existence control is not activated, the different fields of the account number are controlled: the bank code, the branch code and the check key code.

### III.3.1.2.3.2 Scanning options

Scanning options are predefined in the default settings for each value. However, at the beginning of each scanning processing, the operator has the possibility to change them:

Cheque/ Bills of exchange options are:

- MICR codeline correction mode during or after scanning;
- Issue date and amount entry mode during or after scanning;
- Instrument code : two cheque types may be scanned: presented cheques (code 30) and represented cheques (code 33) ;
- Endorsement type and content.

### III.3.1.2.4 Scanning values

Scanning enables the capture of both sides of the payment instrument's image and also the reading of the MICR codeline.

#### III.3.1.2.4.1 Reading MICR codeline

Reading a MICR codeline enables the scanner to verify its state (whether it is a correct or defective codeline).

When reading the MICR codeline the following controls are executed:

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 31/141</b>			

- conformity to Fixed data: the bank and branch code of the drawer must conform to the bank's and branch code of the fixed data,
- Account number check digits calculated by the application must be equal to the one included in the MICR.
- The currency code in the MICR codeline must correspond to an active currency.
- The currency code in the MICR codeline must correspond to the remittance currency code.
- The entire MICR check digits calculated by the application must be equal to the one included in the MICR codeline.

#### **III.3.1.2.4.2 Correcting MICR codeline**

MICR codeline may be misread or totally unread by the scanner. According to the scanning options, two possibilities are offered:

- MICR codeline correction during scanning;
- MICR codeline correction after scanning;

**NB:** After correction or manual entry of MICR codeline, all the above controls are reapplied.

#### **III.3.1.2.4.3 Detecting duplicated transactions**

While scanning values, the system proceeds to a control of duplications over a defined period. Any duplicated instrument will be rejected automatically.

The duplications detection is also triggered when the operator manually corrects or enters the MICR codeline

#### **III.3.1.2.4.4 Processing and compressing images**

The processing and compression of images are directly performed after reading both sides of the document by the scanner. The processing of images is made as follows:

- Capturing the images from the scanner in 100 dpi and 256 grey and RGB colour.
- Image conversion from DIB (Bitmap) into JPEG format
- Image compression up to 76% (with no alteration)

The size of the generated image is about 30 kb for cheque (both sides) and about 45 Kb for bill of exchange (both sides).

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 32/141</b>			



### **III.3.1.2.4.5 Signing scanned images**

After scanning, images are electronically signed (sealed) with the RSA signing algorithm.

Electronic Signing uses a standard Asymmetric algorithm. Its input parameters are the scanned images (both sides) as well as other transactions' information. The output of this function is an electronically signed image (sealed). The image signing is done with the bank's private key.

### **III.3.1.2.4.6 Printing a variable endorsement**

While scanning, the application will automatically apply an endorsement at the reverse of the instrument. The content of the endorsement and position are configurable (first position and second position).

A specific endorsement is also available for manually corrected or entered MICR codeline

### **III.3.1.2.4.7 Storing data**

Signed images are stored in a temporary folder while corresponding data are stored in the database. Each image is identified with its MICR codeline.

The remitting participant code and the remitting branch code are associated with the connected user to the application.

### **III.3.1.2.4.8 Viewing images**

This function enables the user:

- Viewing the image of the instrument and performing some manipulation (reverse side viewing, zooming, rotating, etc.)
- Data checking and eventual modification;
- Eventual deletion of instrument;
- Modification of the remittance/batch setting;
- Continued scanning;
- Pre-validation and/or validation of the remittance (according to validation settings).

### **III.3.1.2.5 Detailed Data entry**

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 33/141</b>			

In addition to the information read from the MICR codeline, additional data must be entered for each scanned instrument. According to the application settings these data could be manually entered or loaded from a data file generated by the core banking system.

### III.3.1.2.5.1 Manual data entry

The operator can enter the data at the end or during the scanning.

#### III.3.1.2.5.1.1 **Cheque data entry**

Mandatory data must be entered to complete the instrument information such as:

- The Amount: User can read the amount from the displayed correspondent image and enter it manually. The transaction amount should not exceed the maximum authorized in the settings. Otherwise the entry will not be accepted.
- The Issuing date (mandatory if the issuing date entry option is checked);
- Cheque nature: if the cheque nature is not automatically read by the scanner, the user have to choose one of these options:
  - 0: Personal cheque ( by default)
  - 1: Bank Draft
  - 2: Corporate cheque.
- The drawer Name : (mandatory or not depending on ACH controls)

#### III.3.1.2.5.1.2 **Bill of exchange data entry**

Mandatory data must be entered to complete the instrument's information such as:

- The number: this field should be entered if the corresponding information is not read automatically (no MICR codeline).
- The Amount: User can read the amount from the displayed correspondent image and enter it manually. The transaction amount should not exceed the maximum authorized in the settings. Otherwise the entry will not be accepted.
- Payer account number BBAN;
- Payer Name : (mandatory or not depending on ACH controls)

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 34/141</b>			

- Issuing date and place;
- Maturity date;
- Etc.

After each Validation of data entry, the applications triggers the generation of individual CAT and PAK files containing both sides image of each cheque.

### III.3.1.2.5.2 Data loading

If the data loading option is active, the operator proceeds to the data loading from a file provided by the core banking system of the branch.

Loaded data should contain all necessary data for remittance validation.

Loaded data will update entered one if it has been already entered manually.

### III.3.1.2.6 Remittances validation

Once all remittance data is entered, the operator must validate (according to validation settings) the remittance to be able to go out of the remittance processing. If not validated; the remittance will stay with a "pre-validated" status.

This validation will trigger a cross matching between the remittance total number and amount of values entered and the effective number and amounts of scanned instruments.

- If the cross matching is successfully executed, the remittance is automatically closed and gets the status« validated ».
- If the cross matching fails, a warning message will be displayed asking the user to correctly enter the data. The remittance stays "pre-validated".

### III.3.1.2.7 Editing of already validated/Pre-validated remittances

Already validated remittance may be edited to perform:

- Update of data (Total amount, total number, beneficiary account number, etc...)
- Update of detailed data concerning the instrument (amount, issuing date, maturity date, cheque nature, etc...)
- Any removal of scanned document;

During this edition, images are displayed.

Remittance validation is performed at each edition.

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 35/141</b>			

### ***III.3.1.2.8      Second validation of data***

The second validation of data is an option. If activated, the double validation becomes mandatory and the images generated are re-checked.

If disabled, the second validation becomes not necessary and the images captured are completed as soon as the remittances are validated.

The second validation should not be done with the same user profile that performed the first entry.

Once the second validation is done, the user who did the first entry cannot modify the remittance data.

### ***III.3.1.2.9      Generating a data file***

The data file for each instrument and for each currency contains only validated remittances.

#### **III.3.1.2.9.1.1      Generating data file at each remittance validation:**

Each time the user validates a remittance; a Data file is automatically generated and contains all the data of the validated remittance.

#### **III.3.1.2.9.1.2      Generating data file at user request:**

At user request, a Data file is automatically generated and contains all the data of all validated remittances since the start of the day.

#### **III.3.1.2.9.1.3      Generating data file at the End of Day:**

Where the user triggers the end of day processing, a Data file is automatically generated and contains all the data of all validated remittances of the day.

**Note:**

- Data files are generated in predefined formats;
- Data files are generated per instrument and per currency
- Data files may be generated at any time of the day;
- Data file for each instrument contains a global record and several detailed records for each remittance. Global record contains data about the beneficiary of each remittance and details records contain data about each scanned instrument of the remittance.

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 36/141</b>			

- Data files are secured as soon as they are generated by the application. Securing Data files enables the detection of any modification that could be made after their generation.

### III.3.1.2.10 Reconciliation between data file and branch file

This function is used in case of a double data entry at the scanning station and in the core banking application. It enables cross matching between the two entries, and displays discrepancies and/or errors in reconciliation statement.

Reconciliation is made by comparing one global/ detail data file generated by the core banking system and the one generated by **Barberousse-Capture**.

#### III.3.1.2.10.1 Reconciliation types

The following three types of reconciliation are available:

- 1st Reconciliation: Reconciliation between remittances global file generated by the core banking system, and the data file generated by **Barberousse-Capture**.
- 2<sup>nd</sup> Reconciliation: Reconciliation between remittances details files generated by the core banking system and the data file generated by **Barberousse-Capture**,
- 3<sup>rd</sup> Reconciliation: reconciliation between (.ENV) file generated by the core banking system and the data file generated by **Barberousse-Capture**,

#### **Notes:**

- Reconciliation may be done at anytime of the day.
- Reconciliations files must be deposited by the core banking system, in pre-defined folders. These files must have the same structure as the data file (.data) generated by Barberousse-Capture and thus for each instrument code;

Reconciliation results can be printed and saved in a file. The operator can also proceed to do corrections in the case of reconciliation failure.

#### III.3.1.2.10.2 Correcting data

When reconciliation fails, the operator has the possibility to correct entered data (remittance identifier, beneficiary BBAN, total amount, total number, etc). Any correction leads to the deletion of the data file.

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 37/141</b>			

After validating corrections, the data file must be regenerated.

### III.3.1.2.11 *Generating (.PAK) image files and (.CAT) index files*

#### III.3.1.2.11.1 *Generating unitary CAT and PAK files*

.CAT and .PAK unit files generation is done at the remittance's validation. If the double validation is activated, .CAT and .PAK unit files generation is done at the second validation.

.CAT and PAK unit files are generated for each scanned instrument.

Unit CAT files contain data identifying the images which are generated in the PAK files.

The PAK file contains both sides of the scanned image.

All generated CAT and PAK files are placed in predefined sub folders:

- Inter-bank cheque;
- Intra-bank cheque;
- Inter-bank bill of exchange;
- Intra-bank bill of exchange;

#### III.3.1.2.11.2 *Generating accumulated, differential and global CAT and PAK files*

During the day, at user's request:

- Accumulated .PAK and .CAT files per instrument code and per currency are generated (from start of day);
- Differential .PAK and .CAT files per instrument code and per currency are generated (since the last generation).

According to the settings, automatically at the end of day, global CAT and PAK files can be generated per instrument code and per currency.

The operator may generate intermediate and accumulated files at anytime of the day. In the remittance processing mode, these files contain only validated remittances, while in the batch processing mode the latter contains only instruments for which mandatory data were entered or loaded.

When there is no validated remittance (remittance mode) or no instrument for which data was entered (batch mode), the application displays a message indicating that there is no data to generate.

### III.3.1.2.12 *Processing exceptions and anomalies*

During the scanning process, anomalies or exceptions may occur.

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 38/141</b>			

The exception list managed by the capture module is the following:

- Non responding scanner.
- Mechanic incident;
- Paper jam in the scanner;
- Doubles - two values passing together in the scanner;
- Communication fails with the scanner;
- Resuming in case of failure;
- Drivers errors (driver absence, not correspondent driver, ...) ;
- Defective MICR codeline : the MICR codeline may present anomalies affecting its reading, the following cases are possible:
  - Scanning an inverted cheque (MICR codeline on top);
  - Scanning the cheque on the reverse side;
  - Missing character in the MICR codeline;
  - Printing defect of the MICR Codeline;
  - Altered codeline (i.e. : hole , a tear of the MICR codeline) ;
  - Cheque with no MICR codeline.

### *III.3.1.2.13 Date forcing*

When the loaded date (from a date file or manually entered) is incorrect, the branch administrator can force this date and enter a new correct date.

Date forcing implies updating generated outputs since the day started, these updates are the following:

- Updating date and signatures in the database;
- Deletion of any generated image and index files;
- Deletion of any generated data file;
- Generation of the index and images with the new date and signature;
- If the loaded date has led to the loading of a new key, forcing the date enables the reloading of the right key and the re-signature of all images with the right key (previous key). This case may occur when the loaded date is greater than the expiry date of the current key.

### *III.3.1.2.14 Multi-branches scanning*

**Barberousse-Capture** enables the administrator of the application to define the profile of host branches that are able to scan their remittances at the installation branch. Consequently,

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 39/141</b>			

it enables the processing of remittances provided by various branches from the same bank and the generation of their outputs.

When defining a user's profile « Other branch », the administrator must specify the corresponding branch, thus, when a user enter his username and password, the related branch environment will be displayed.

A user of a host branch can access only data of his branch.

### III.3.1.2.15 Centralized scanning

**Barberousse-Capture** offers the possibility to process the scanning of remittances regardless of their branch codes values. For this purpose, the branch code defined at installation is set to « 999 ».

In this case, all processing are the same as described above. However, all related files to scanned images are generated in the same directory per instrument type, regardless of the branch code.

### III.3.1.2.16 Multi-Station scanning

**Barberousse-Capture** may be installed on several workstations, hence enabling several users working at the same time.

Multi-station scanning represents a tool of allocating and monitoring workload of data entry and balancing functions.

### III.3.1.2.17 Entry/Loading of beneficiaries data

**Barberousse-Capture** enables entering data on accountholders likely to present remittances.

These entered data are:

- Beneficiary Account number (BBAN);
- Beneficiary name and first name;
- Beneficiary address.

The menu also previews the loading of these data from a file issued from the core banking system.

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 40/141</b>			



### III.3.1.2.18 End of day

Ending the scanning day is initiated by the operator. It leads to:

- Printing report containing global data of the capture day per instrument type (cheque and bill of exchange) per currency and per profile;
- Generating a file containing the closing date;
- Storing of files: copy of folders which generated CAT and PAK files of the branch and also those of guest branches. The procedure consists of using two folders, one for storing the previous day files, and the second for storing the days before files;
- Generating Global CAT/PAK files of the end of the day (if global files generation option is checked) ;
- Generating cheques and bills of exchange global data file;

It must be noted that when the third reconciliation is mandatory, the application checks when closing the day that it was successful. Otherwise, the day closing will not be done.

### III.3.1.2.19 Reports

Data of all processed remittances during the scanning day may be grouped in reports.

#### III.3.1.2.19.1 Detailed reports

- Detailed reports per remittance/batch cheque and/or BOE.
- Detailed reports per recipient branch: cheque and/or BOE.
- Detailed reports per recipient bank: cheque and/or BOE.

#### III.3.1.2.19.2 Summary reports

- Inter-bank remittances/batches summary reports.
- Intra-bank remittances/batches summary reports.
- General summary report.

#### III.3.1.2.19.3 Keys loading reports

This report provides the user with information about the last loaded key: status, starting validity date, expiry date; size, etc,

#### III.3.1.2.19.4 Incidents reports

Different errors relating to the capture application may be printed in this report.

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 41/141</b>			

### III.3.2 BARBEROUSSE GENERATEURCLES (BRANCH KEY GENERATOR)

#### III.3.2.1 Presentation

The main functionality of **Barberousse-GenerateurCles (Branch installation)** is to receive and store keys that are needed to secure images (signature and authentication)

These keys are received from **Barberousse-GenerateurCles** of banks' head offices through the SSL protocol.

#### III.3.2.2 Functionalities

Access to the application is secured and different authorization levels may be granted to different groups and/or users of the application.

##### III.3.2.2.1 Groups, users and Access rights management

As Barberousse-Capture, This module provides the same functionalities of groups, users, right access and passwords management.

##### III.3.2.2.2 Keys reception and storage

Keys generated at the bank's head office are sent to the branches using the **SSL** protocol (Secure Socket Layer).

These keys are loaded by **Barberousse-GenerateurCles(branch installation)** which store them and send an acknowledgment to the head office.

Besides, the branch key generator receives the Clearing House public key through the head office key generator and stores it.

All keys are stored in order to provide all used keys regardless of their status (new key, key in use, cancelled key or archived key)

Enquiry menu allows viewing received keys in the branch regardless of their status:

- Private and public keys of the head office.
- Public keys of the Clearing House.

##### III.3.2.2.3 Manual Loading of keys

In case of failure of automatic transmission of key from the head office to branches, **Barberousse-GenerateurCles (branch installation)** enables manual loading of keys from files (sent by mail or provided by flash disk, etc.).

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 42/141</b>			

### III.3.2.2.4 Statistics

**Barberousse-GenerateurCles** enables the printing of statistics related to the branch keys history for a defined period.

### III.3.2.2.5 SSL messages

The user can display SSL messages list:

- Received keys;
- Received keys acknowledgements;
- Sent keys acknowledgements;

Search is done per message transmission status:

- Success : successfully sent message;
- Failure: non transmitted message;
- Pending: currently transmitted message.

Manual transmission resumption is possible in case of automatic transmission failure after several attempts

## **III.3.3 FUNCTIONAL DESCRIPTION OF BARBEROUSSE GIP**

### **III.3.3.1 Presentation**

**Barberousse-GIP** enables:

- The viewing of incoming inter-bank, intra-bank and cross-country image instruments.
- The generation of rejected transactions to be sent back to remitting banks.

### **III.3.3.2 Functionalities**

#### III.3.3.2.1 Access and authorization management

As All branch modules, this module provides the same functionalities of groups, users, right access and passwords management.

#### III.3.3.2.2 Day initialization

The initialization consists of the following operations:

- loading the new date;
- Checking and loading of any new fixed data file;

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 43/141</b>			

- Deletion of Old generated files from mailbox.
- Checking and loading of received remittances from Clearing House;
- Checking and loading of intra-bank received remittances

### **III.3.3.2.2.1**      Loading the new date

According to the system settings, the loading of the new date is made either through the automatic loading of a date file or by manually entering the new date.

As long as the new date is not accepted, the initialization is blocked and no further processing could be possible in the application.

### **III.3.3.2.2.2**      The Fixed data loading

The Fixed data contains the management information of:

- The participating institutions: Bank codes, branch codes, participation mode and status,
- Holidays calendar,
- The currencies : currencies codes and status,
- The financial instruments: instruments codes, rejection period, rejection starting period, cancellation period, etc.

### **III.3.3.2.3**      Loading images and data files

Files are either automatically loaded when initializing a new day or manually loaded through a specific screen.

This function enables the operator to load intra-bank and inter-bank data and image files received from the Clearing House.

When loading files, **Barberousse-GIP** executes the following controls:

- Conformity of images files CAT/PAK;
- Images authentication;
- Syntactical and logical control of data files (.RCP).

### **III.3.3.2.4**      Received images and data viewing

**Barberousse-GIP** enables viewing all the received images and data of the day. The user can view the front and reverse sides of received images.

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 44/141</b>			

The display can be refined with search criteria selected by the operator (instrument number, amount, instrument type, account number, etc.).

Image viewing can be customized (both sides viewing, zooming, rotating, etc.)

The user can print a report containing the image front and reverse sides of the chosen instrument and its most significant data.

Furthermore, **Barberousse-GIP** allows the display of scanned signatures of the account holders if they are provided in a file format accepted by **Barberousse-GIP**. The signature of the account holder is displayed automatically at the right side of the instrument and the user can easily perform the conformity control of signatures.

### *III.3.3.2.5 Rejection Management*

#### **III.3.3.2.5.1 Rejection reasons entry**

After checking images or data in the core banking system, the user can then select the transactions to be rejected and enter the adequate rejection reasons. Four rejection reasons could be entered for each received transaction.

If **Barberousse-GIP** has received a cancellation for any received transaction, rejecting that transaction will not be allowed

#### **III.3.3.2.5.2 Rejections enquiry**

Rejected transactions not yet executed can be displayed through a specific screen.

The user can cancel the entire rejection, one or several of the rejected reasons.

#### **III.3.3.2.5.3 Rejection files generation**

The rejection files generation is done at the request of the user during the day. The user can select several or all records to be generated per instrument code or transaction code.

When generating rejection remittances, the settlement date will be calculated according to the instrument and to the time the rejection was generated.

### *III.3.3.2.6 Cancellations management*

#### **III.3.3.2.6.1 Cancellations entry**

This function enables users to cancel generated rejections.

The "**Cancellation**" screen displays all generated rejections from which the user can choose the one he wants to cancel.

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 45/141</b>			

### **III.3.3.2.6.2**      Cancellation enquiry

Cancelled rejections that are not yet executed are displayed through a specific screen. The user can remove one or several cancellations.

### **III.3.3.2.6.3**      Cancellation files generation

At the user request and before the ending of day, the cancellation files can generate. The user can select several or all cancellations to generate.

### **III.3.3.2.7**      Second validation

The second validation of rejections is an option that can be used in this module. Once activated, before generation/cancellation of remittances, a validator should make a second validation of these operations from a specific screen. If activated, the second validation of rejections/cancellations is necessary for their generation.

### **III.3.3.2.8**      Reports

Several reports displaying the different transactions processed may be printed at user's demand:

- Received transactions report ;
- Received rejections report ;
- Rejected transactions report ;
- Cancelled transactions report ;
- Accepted transactions report ;
- Received cancellations report;
- Etc.

These reports may be printed or saved in a file.

### **III.3.3.2.9**      Date forcing

When the loaded date (from a date file or manually entered) is incorrect, the branch administrator can force this date and enter a new correct date.

Date forcing implies updating the already generated outputs since the start of day, these updates are the following:

- Updating date in the database;
- Deletion of old generated files;
- Generation of new files with the new date;

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 46/141</b>			

### III.3.3.2.10 Online enquiry of archived images and data

**Barberousse-GIP** offers to users the possibility to access the Web site of the Clearing House<sup>1</sup> and view images and data related to archived values.

### III.3.3.2.11 Multi-branches installation

**Barberousse-GIP** enables the administrator of the application to define the profile of host branches that are able to process their received remittances at the branch where it is installed.. Consequently, it enables the processing of remittances received by various branches of the same bank and the generation of their outputs in separate folders.

When defining a user profile "other branch", the administrator must specify the corresponding branch. Thus, when a user enters his username and password, the related branch environment will be displayed.

A user of a host branch can access only data of his branch.

### III.3.3.2.12 Centralized scanning

**Barberousse-GIP** offers the possibility to process the viewing and rejection of received remittances regardless of their branch codes. For this purpose, the branch code defined at installation must be set to « 999 ».

In this case, all processing are the same as described above. However, all rejections of each instrument are generated in the same directory, regardless of the branch code.

### III.3.3.2.13 Multi-Station processing

**Barberousse –GIP** may be installed on several working stations, hence enabling several users to work at the same time.

Multi-station processing represents a tool of allocating and monitoring workload of data entry and balancing functions.

<sup>1</sup> And possibly of the head office if this option is adopted

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 47/141</b>			

### III.3.4 BARBEROUSSE GENERATEURCLES (HEAD OFFICE KEY GENERATOR)

#### III.3.4.1 Presentation

The main functionality of **Barberousse-GenerateurCles** is to provide signature authentication and encryption keys that are needed to secure images.

These keys are transmitted to the branch by **Barberousse-GenerateurCles** of the bank's head office through the SSL protocol.

The key generation module is installed at the head office of the bank, where it runs in « head office » mode, but also in every scanning location, in the branches.

#### III.3.4.2 Functionalities

##### *III.3.4.2.1 Access and authorizations management*

As branch modules, this module provides the same functionalities of groups, users, right access and passwords management.

##### *III.3.4.2.2 Keys generation*

The key generation is done at the head office. In case of branch installation the key generation menu is inhibited.

The key generation allows an authorized user to trigger, from the bank head office, the generation of the two keys (one private and the other public) that will be sent to defined destinations through a secure transmission.

##### *III.3.4.2.3 Keys transmission*

Keys generated at the bank head office are sent to the branches using the **SSL** protocol (Secure Socket Layer).

These keys are also sent to the participant platform (**Hannibal-Poste Adherent**) which will transmit them to Clearing House.

Besides, **Barberousse-GenerateurCles** receives the Clearing House public key through **Hannibal-Poste Adherent**, stores it and transmits it to the branches.

##### *III.3.4.2.4 Keys Storage*

**Barberousse-GenerateurCles** ensures the storage of received keys from the bank's head office (keys of the bank and the Clearing House). These keys will be used by other branch modules for the image signature/authentication operations.

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 48/141</b>			



All keys are stored in order to provide the status of used keys (new key, in use key, cancelled key or archived key)

Enquiry menu allows viewing received keys in the branch regardless of their status:

- Private and public keys of the head office.
- Public keys of the Clearing House.

#### III.3.4.2.5 Manual loading of keys

In case problems of transmission of the head office's keys to branches or to **Hannibal-Poste Adherent, Barberousse-GenerateurCles** enables manual loading of keys from external drivers (USB drive, CD, etc).

#### III.3.4.2.6 Statistics

The generator module enables printing of statistics of used keys of transactions during a defined period.

#### III.3.4.2.7 SSL messages Enquiry

The user can display SSL messages list:

- Received keys;
- Received keys acknowledgements;
- Sent keys acknowledgements;

Search is done per message transmission status:

- Success : successfully sent message;
- Failure: non transmitted message;
- Pending: currently transmitted message.

Transmission resumption is possible in case of failure through a failed transmission button.

### **III.3.5 FUNCTIONAL DESCRIPTION OF HANNIBAL-AUTOCOLLECTE**

#### **III.3.5.1 Presentation**

The **Hannibal -Autocollecte** software package is a secured files transfer monitor. **Hannibal -Autocollecte** is designed to share the work loads, between two servers working simultaneously.

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 49/141</b>			

### III.3.5.2 Functionalities

#### III.3.5.2.1 Collection of files

Collecting files is triggered from the head office according to a defined general schedule. Nonetheless, it is possible to customize collecting by branch according to the following parameters:

- Collecting according to a minimal number of files;
- Collecting according to time intervals;

Files to collect from the different branches are processed on the “first detected/first collected” rule;

The collection may be made from several branches simultaneously.

Files are collected on “straight through processing” basis, from their generation in the branch. This unloads and softens the network traffic throughout the clearing day.

Every collected file is acknowledged and will not be processed anymore.

To ensure integrity of files to collect, Autocollecte agent services proceed to their signature with a standard algorithm file.

Files signatures are sent to the head office to be used for an integrity control of files when they arrive.

Collecting periods from branches to the head office and sending periods from head office to branches are independent and may overlap. This independence enables flexibility in terms of collecting and sending parameters according to users’ will.

#### III.3.5.2.2 Sending of files

The sending of files operations are executed by the central module in the head office.

File to be sent are inserted in the sending queue.

Each entry on the sending queue is supported by Autocollecte that will send it to the recipient according to the “first detected/first sent” rule.

The sending of files may be made to several branches simultaneously;

After each file transfer, the agent and the central module, proceed together to the integrity control of files.

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 50/141</b>			

In fact, the central module sends to the agent the name and signature of the sent file and requests a signature check.

According to the integrity control result, **Hannibal-Autocollecte** updates the sending queue (successfully sent or failed). Several attempts are made to resume the sending of files that could not be sent.

### *III.3.5.2.3 Settings of the Autocollecte module*

#### **III.3.5.2.3.1 Setting collection flows**

For each branch, **Hannibal-Autocollecte** enables setting different flows source/destination of files to transfer. Setting consists of defining:

- The main collect server;
- The branch identifier;
- The full path of the file / source folder;
- The full path of the file / destination folder.

#### **III.3.5.2.3.2 Setting the general schedules**

Collection and sending periods are independent and may overlap. This independence enables flexible setting of collection and sending according to the user's choice:

- collection starting time (Starting session time);
- collection ending time;
- Sending starting time;
- Sending ending time (Ending session Time).

Starting and ending time for collection and sending may overlap over different calendar days.

#### **III.3.5.2.3.3 Specific settings**

For each branch, **Hannibal-Autocollecte** module enables defining:

- Starting collection time for this branch (must be  $\geq$  global starting collection time) ;
- Ending collection time for this branch (must be  $\leq$  global ending collection time) ;
- Connexion frequency for that branch.
- Minimum number of files from which collection may be executed from that branch;

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 51/141</b>			

### III.3.5.2.4 Exchanges monitoring

**Hannibal-Autocollecte** enables a centralized monitoring of file transfers between the head office and branches.

**Hannibal-Autocollecte** relies on a graphic interface offering a general overview of the files transfer activity. All information concerning transfers are available such as status of transfer, origin, destination, size / number of files, beginning of transfer time, end of transfer time.

The main monitoring interface displays details concerning a given transfer and shows its different states. Available information in this interface:

- Collection monitoring: (branch, number of files to collect, number of collected, Collection started time, and Collection ended time).
- Sending monitoring: (branch, files to sent, sending status, ending started time, sending ended time).
- Connexion anomalies

In case of a collecting or sending failure of a given file, **Hannibal-Autocollecte automatically** proceeds to the resumption of collecting or sending until an outcome of the operation. The attempts are done according to a configurable period.

This application also offers the possibility to extend transfer deadlines for all branches or for a given one.

### III.3.5.2.5 Exchanges statistics and history

#### III.3.5.2.5.1 Exchange history

This function enables the display, over a given period of time and by branch, of the history of the following operations:

- All files transferred to branches ;
- All files received from branches;
- All operations successfully completed;
- All operations completed with failure.

Transaction History of these operations is displayed for a period defined with the « Starting date » and « Ending date » fields.

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 52/141</b>			

### III.3.5.2.5.2 Daily statistics

This function enables informing about collection status of the file of the day. It displays:

- Number of collected files;
- Transferred file names;
- Folder from were each file is collected;
- File size.

## III.3.6 HANNIBAL -ADT

### III.3.6.1 Presentation

**Hannibal-ADT** software package ensures the automatic processing of received files from branches or from the core banking application, at the bank’s head office, in order to prepare remittances going for clearing as well as intra-bank remittances.

It also ensures the processing of remittances received from Clearing House and their sorting by recipient branch.

It runs in coordination with the **Hannibal-PosteAdherent** module to which it generates outgoing remittances to be presented for clearing and from which it recovers incoming remittances received from the Clearing House.

It runs also in coordination with the **“Hannibal-Autocollecte”** module from which it recuperates collected files from branches and to which it generates remittances to be sent to recipient branches.

The ADT module is divided into three modules:

- **ADT-Controle** : ensures control of all received files from branches and from the Clearing House
- **ADT-Generateur**: ensures remittances generation to the Clearing House or to branches.
- **ADT-Administration**: ensures administration and monitoring of all transactions processing at the head office, and also managing general application settings.

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 53/141</b>			

### III.3.6.2 Functionalities

#### III.3.6.2.1 Day initialization

The start of day is triggered by the arrival of the « Day starting Time».

The new day will be started only after receiving the new date from the **Poste Adherent module**.

After loading the new date, Hannibal-ADT generates date files that will be sent to the different branches to initiate the new day.

#### III.3.6.2.2 Processing of data received from branches

As soon as the session starts, the ADT module proceeds to the following processes:

- Detection of received files from branches;
- Control of CAT and PAK image files;
- Control of .Data files;
- Controlling ENV files;
- Reconciliation of data and images files;
- Calculating settlement dates;
- Generating inter-bank remittances to the participant's platform;
- Generating cross-country remittance to the participant's platform;
- Generating intra-bank remittances to the recipient branches;
- Calculating participant's net balance.

##### III.3.6.2.2.1 Detecting received files from branches

Detected files are controlled as soon as they are inserted in the head office reception queue and deposited in the head office mailbox. Received files are the followings:

- .CAT and .PAK files containing images and their indexes of cheques and bills of exchange.
- .Data files contained all data of cheques and bill of exchange.
- (.ENV) files containing data prepared by the core banking system: direct credits, direct debits and card transactions;

Received files are inserted in the reception queue with the default status « 0-Pending ».

If successfully controlled, they will get the status « 1- successfully controlled ».

Otherwise, in case of control failure, the files will get the status « 2- control failure ».

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 54/141</b>			

### III.3.6.2.2.2 Controlling image files

This control concerns all image file types (CAT and PAK) received from branches: unitary, accumulated, differential and global.

Executed controls at this level concerns:

- Images authentication: This control is made to ensure that these files at that level are authentic and have not been damaged or modified after they were scanned. Detection of a non authentic image leads to generation of an alert and the display of the authentication error in a red colour.
- CAT/PAK conformity check: This check consists of verifying that images in the PAK file and their data correspond to the CAT file.
- Duplications control: On each image's arrival, the ADT module checks if it has already been processed during that day or not.

### III.3.6.2.2.3 .Data files control

#### III.3.6.2.2.3.1 **Data files authentication**

The cheques and bills of exchange data files authentication is continuously done as soon as .DATA files arrive from the branches

This control is made to ensure that these files are authentic and have not been damaged or modified after they were generated.

#### III.3.6.2.2.3.2 **Syntactical control**

This control aims at checking:

- Files integrity;
- The completeness of data records ;
- The compliance with pre-defined field types.

Invalid files will be fully rejected by **Hannibal –ADT**.

An alert and details of errors will be displayed at the screen. A report of the alert can be printed or saved in a file.

#### III.3.6.2.2.3.3 **Logical control**

It includes the consistency control of the coherence of data according to the control rules set

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 55/141</b>			

by the ACH and loaded from the fixed data file.

Invalid files will be fully rejected by **Hannibal –ADT**.

An alert and details of errors will be displayed at the screen. A report of the alert can be printed or saved in a file.

### III.3.6.2.2.3.4 Data files Conversion

After being successfully controlled, the cheques and bills of exchange data records are converted into ENV records in order to be processed by Hannibal-ADT.

### III.3.6.2.2.4 ENV files control

These controls are applied to:

- Presentation and representation files;
- Rejection files;
- Presentation cancellation files;
- Rejection cancellation files.

#### III.3.6.2.2.4.1 ENV files authentication

The ENV files authentication is continuously done as soon as an .ENV file is detected by Hannibal ADT

This control is made to ensure that these files are authentic and have not been damaged or modified after they were generated.

#### III.3.6.2.2.4.2 Syntactical control

This control aims at checking:

- Files integrity;
- The completeness of data records ;
- The compliance with pre-defined field types.

Invalid files will be fully rejected by **Hannibal –ADT**.

An alert and details of errors will be displayed at the screen. A report of the alert can be printed or saved in a file.

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 56/141</b>			



### III.3.6.2.2.4.3 Logical control

It includes the consistency control of the coherence of data according to the control rules set by the ACH and loaded from the fixed data file.

Invalid files will be fully rejected by **Hannibal –ADT**.

An alert and details of errors will be displayed at the screen. A report of the alert can be printed or saved in a file.

### III.3.6.2.2.4.4 Regulatory control regarding history

It includes all controls related to the compliance of transactions data with regulatory control rules, some of which resort to the history of the ADT, such as rejection deadlines control, control of rejection reasons applied to the value, etc.

To do regulatory controls, a history of the processed presentations and rejections is required. Data history period is defined on the ADT settings.

Invalid transactions will be rejected individually by **Hannibal–ADT**.

An alert and details of errors will be displayed at the screen. A report of the alert can be printed or saved in a file.

### III.3.6.2.2.4.5 Duplicates control

When controlling each ENV transaction, the ADT module verifies that no other record is same as that one existing in the database.

When detecting duplicates, the ADT module rejects the received duplicate (i.e. the second transaction) while generating an alert message that is displayed on the screen.

Invalid records will be rejected individually by **Hannibal–ADT**.

### III.3.6.2.2.5 Cancellation management

#### III.3.6.2.2.5.1 Cancellation files controlling

Transactions to be cancelled are provided by the core banking system and are communicated to **ADT-Controle** which will perform the following verifications:

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 57/141</b>			

- A. Checking cancellation periods: **ADT-Controle** checks whether the cancellation period of the transactions to be cancelled has not been exceeded.
- If the cancellation period has been exceeded, the cancellation is not accepted by **ADT-Controle**;
- B. Checking rejections: The ADT module checks if the transactions to be cancelled have not been already rejected by the recipient bank. In that case, the cancellation would not be accepted by ADT.

### III.3.6.2.2.5.2 **Generating cancellation files**

The accepted cancellations are stored in the database. **ADT-Controle** identifies for each cancellation the initial corresponding file presented. Cancellations of presentations will have the same reference as the initial presentation (batch number).

### III.3.6.2.2.5.3 **Impact of generated cancellations**

Generating a cancellation batch by **ADT-Generateur** leads to the net balance update.

### III.3.6.2.2.6 Inserting data

Data of these remittances is inserted only when all related controls are successfully executed.

### III.3.6.2.2.7 Reconciliation between images and data

This control is used to check that no data requiring an image is transferred to the Clearing House without image, and that no image is sent to the Clearing House without its corresponding data. This control also checks the concordance of information contained in both image and data files.

It must be noted that the non image required instruments have the default status « 1-Successfully reconciled».

### III.3.6.2.3 Inter-bank remittances generation

This generation is done continuously and automatically as soon as the following conditions are satisfied (According to the defined settings):

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 58/141</b>			

- The generation starting time is reached;
- The generation frequency has elapsed (or the generation batch size is reached).

Generation consists of accumulating all data and images already successfully controlled and reconciled in a one or more global batch according to the chosen generation conditions. This generation is done per instrument code, per currency code, per record code (presentation or rejection) and per clearing type (inter-bank, intra-bank and cross-country).

The generation monitoring interface of **ADT-Generateur** module allows the user to follow up the generation by displaying total number, type and instrument code of the generated transactions.

#### ***III.3.6.2.4      Intra-bank remittances generation***

This generation is done continuously and automatically as soon as the following conditions are satisfied (According to the defined settings):

- The generation starting time is reached;
- The generation period has elapsed (or the generation batch size is reached).

Intra-bank generation consists of sorting, presentation, representation, cancellation and rejection data and image records per instrument, per record code and per recipient branch.

#### ***III.3.6.2.5      Calculating settlement dates***

While generating remittances, the application updates the final presentation date and settlement date of each transaction.

**(Settlement date= presentation date + settlement period)**

#### ***III.3.6.2.6      Clearing House returns***

When receiving clearing return files, **ADT-Controle** executes the following processes:

- Decrypts clearing return files using the head office private key;
- Decompresses the instruments' images return files;
- Authenticates images and controls data files;
- Updates the participant net balance;

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 59/141</b>			

- Generates and sorts remittances per recipient branch;
- Provides remittances for transfer to the Core Banking System;

### III.3.6.2.7 Incoming remittances detection

As soon as they arrive at the **Poste-Adherent** mailbox from the Clearing House, incoming remittances are automatically detected and processed by **ADT-Controle**.

### III.3.6.2.8 Decrypting and decompressing incoming remittances

When receiving incoming remittances from clearing, **ADT-Controle** proceeds with their decryption. In case of requiring image instruments, received files are also decompressed.

### III.3.6.2.9 Controlling incoming remittances

Each received .RCP file will be submitted to syntactical, logical and duplications controls.

.Each CAT/PAK files will be submitted to Reconciliation and Authentication controls.

#### III.3.6.2.9.1 Syntactical control of RCP files

When receiving each .RCP file coming from the Clearing House and after decrypting, the following controls are executed:

- Files integrity;
- The completeness of data records ;
- The compliance with pre-defined field types.

In case of errors detected, an alert and details of errors will be displayed in red colour on the screen. A report of the alert can be printed or saved in a file.

#### III.3.6.2.9.2 Logical control of RCP files

It includes the consistency control of the coherence of data according to the business rules set on the ACH and loaded from the fixed data file.

Invalid files will be fully rejected by **Hannibal –ADT**.

In case of errors detected, an alert and details of errors will be displayed in red colour at the screen. A report of the alert can be printed or saved in a file.

#### III.3.6.2.9.3 Duplication control of RCP files

This control checks if any received transaction has been already processed by the ADT module during the same day or during the transaction history period. If yes, the transaction is qualified as a duplicate record.

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>• Draft</li> <li>• To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 60/141</b>			

Detected duplicate records are generated in a separate file (.DBL) having the same structure as the RCP file. An alert is displayed in red colour to inform about the duplicate record detection.

#### **III.3.6.2.9.4 Authenticating received images files**

The cheques and bills of exchange images authentication is done whenever new CAT /PAK files coming from the Clearing House are detected.

This control is made to ensure that these files haven't been damaged or modified since their generation in the Clearing House.

The authentication process is done with the Clearing House public key.

An alert is generated and displayed in red colour for any authentication error detected.

#### **III.3.6.2.9.5 Reconciliation between images and data**

This control is used to check that no data requiring an image is received from the Clearing House without the image, and that no image is received from the Clearing House without its corresponding data. This control also checks the conformity of information contained in both image and data files.

For each image based instrument, the control is based on a unique identifier that must strictly comply with every transaction and its associated image.

#### **III.3.6.2.10 Sorting and generating incoming remittances per recipient branch**

Inter-bank and cross-country remittances received from the Clearing House are inserted in the application database then generated per recipient branch. This generation is done per branch, per currency, per instrument code and per clearing code (inter-bank or cross-country).

Sorted .RCP, .PAK and .CAT files will be deposited in the sending mailbox of the head office in order to be sent to the recipient branches by **"Hannibal-Autocollecte"**.

#### **III.3.6.2.11 Net balances calculations and update**

##### **III.3.6.2.11.1 Net balance calculation**

This calculation is automatically and continuously executed for each currency as long as:

- Remittances are generated by the ADT module;
- Incoming remittances are received from the Clearing House ;

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 61/141</b>			

- Regulatory rejections are received from the Clearing House; net balance
- End of the day final report is received from the Clearing House.

### III.3.6.2.11.2 Debit Limit Control

Debit limits are defined for each participant in the Clearing House fixed data.

Debit limit control concerns inter-bank and cross-country instruments and consists of continuously checking (i.e. at each net balance update) if the alert rate is reached, compared to its defined debit limit.

In such a case, **ADT-Contrôle** generates an alert to inform the user. This alert does not create any blocking situation for the application process and it continues to function normally.

### III.3.6.2.12 Interfacing with the Poste Adherent

In addition to the remittances detection coming from the Clearing House, the ADT module loads from the **Hannibal-PosteAdherent**:

- The new session date;
- New Fixed data file;
- End of the day report (.CPR file);
- The clearing transactions reports (.CRO file);
- Regulatory rejection (.RJT file);
- Definitive net balance per value (.SND file).

#### III.3.6.2.12.1 Fixed data file loading

Fixed data update is done as soon as a fixed data file is detected.

Several Fixed data files may be loaded during one day; the update time will indicate the last received fixed data file.

After each new fixed data file loading, **ADT-Contrôle** generates branches' Fixed data files to be transferred to the recipient branches by **Hannibal-Autocollecte**.

### III.3.6.2.13 End of the day report loading

At the end of the clearing day, the Clearing House returns to the remitting participants a report

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 62/141</b>			



of the executed processes on the remittances they sent and on those they received.

This file contains monitoring summary of all the remittances sent (.ENV) and received (.RCP) to/from the Clearing House for each value. The file indicates also the number of technical rejections (.RJT).

In case of non-acknowledgement of a sent batch (.ENV) **ADT-Controle** generates an alert to inform the operator.

In case of a lack of an .RCP or an .RJT file, all actions above will be blocked until receipt of the relevant files.

Final report loading will trigger the branch reports generation that will be routed to the remitting branches and the Core Banking System for processing.

Branch report will contain for each branch the fate of all sent transactions for clearing. Also, **Hannibal-ADT** generates for each branch and each currency global net balance files for all instruments that will be routed to the branches.

**III.3.6.2.14** Regulatory rejection files loading

Regulatory rejections (.RJT) executed on the Clearing House and received by **Hannibal Poste-Adherent** are loaded as soon as they arrive in the head office by **Hannibal-ADT** that will:

1. Update the transaction status in the database;
2. Update the calculated net balance.

Next, **Hannibal-ADT** sorts the regulatory rejection files (.RJT) per recipient branch. The sorted rejections files will be sent to branches by **Hannibal-Autocollecte**.

**III.3.6.2.15** Net Balances reconciliation

When receiving Clearing House final net balances, **Hannibal-ADT** proceeds to its reconciliation with its own balances.

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 63/141</b>			

- a. In case of absolute conformity between all net balances, the ADT module generates a confirmation message of the clearing balances of all instruments and all currency included.
- b. In case of conformity failure of at least one net balance, an alert message detailing the failure causes is generated by the ADT module and the confirmation message is not generated.

### III.3.6.3 Functions of the ADT-Admin module

**ADT-Admin** represents the administration application of the module **Hannibal-ADT**. It provides system setting and monitoring of transactions handled by **ADT-Controle** and **ADT-Generateur**.

#### III.3.6.3.1 Groups, users and Access rights management

As branch modules, this module provides the same functionalities of groups, users, right access and passwords management.

#### III.3.6.3.2 Working Folders settings

This setting enables defining all folders with which the ADT module communicate with other applications (**Poste-Adherent** module, **Hannibal-Autocollecte**, the Core banking system, etc...) these folder are:

- Sending and reception folders of files coming/going from/to branches;
- Sending and reception folder of files coming/going from/to the Core banking system;
- Sending and reception folder of files coming/going from/to the **Poste-Adherent**;

#### III.3.6.3.3 Transaction History period setting

For duplications control, a transaction history must be kept by **Hannibal-ADT** containing all inter-bank, cross-country and intra-bank handled operations.

Transaction history period is configurable in **ADT-Admin**.

#### III.3.6.3.4 Generation setting

In this screen, the generation settings may be defined: Generation mode (unique or multiple generations), Generation frequency, Inter-bank Generation starting time, Intra-bank Generation starting time, etc.

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 64/141</b>			



### III.3.6.3.5 Branches setting

This heading enables entering and updating technical properties of the bank branches (Machines IP address, sending and receiving mailboxes).

For each branch are configured an FTP username and password, used by **Hannibal Autocollecte** for collection and sending of files coming/going to branches.

### III.3.6.3.6 Manual deposit

#### III.3.6.3.6.1 Non-acknowledged remittances deposit

This functionality allows manual deposit of the previous day's generated remittances that were not acknowledged by the Clearing House.

Deposited remittances will be processed by **ADT-Admin** as follows:

- Dates update : presentation and settlement date;
- Image re-signature if the bank signature key changed since last generation.

#### III.3.6.3.6.2 Emergency manual deposit

In case of connexion failure, files (data and images) which cannot be received from branches, core banking system or Clearing House could be manually deposited in **Hannibal-ADT Admin**.

Manual deposit concerns:

- Inter-bank, cross-country and intra-bank image files;
- Inter-bank, cross-country and intra-bank data files;

Any file deposited manually will be subjected to the same related controls, syntactical, logical, regulatory, authentication and reconciliation.

### III.3.6.3.7 Operational monitoring

#### III.3.6.3.7.1 Collection Queue Enquiry

A multi-criteria search interface allows the display of all files already inserted at the **"collection Queue"** of the application.

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 65/141</b>			

To refine the display, the user can choose several selection criteria such as Instrument code, Status (Pending, successfully controlled, rejected, inexistent file), Remitting branch, Clearing House code: (02: Cross-country, 01: Inter-bank or 00: Intra-bank), etc...

### III.3.6.3.7.2 Transactions Enquiry

This enquiry concerns the processed transactions by **ADT-Controle**.

A multi-criteria search interface allows the user to search a given transaction and view its image if it exists.

Enquiry also displays all information related to the selected instrument and informs the user about its current status (reconciliation pending, successfully reconciled, reconciliation failure, generated, etc...). Displayed transactions may be printed (images and data).

Image display: When browsing image based transactions, the user may view the cheques image. Several view options are available such as zooming, rotating and inverting the background and foreground.

### III.3.6.3.7.3 Queue out enquiry

A multi-criteria search interface allows the enquiry of all generated files by **ADT-Generateur** and to be sent to the branches.

### III.3.6.3.7.4 Generated remittances Enquiry

A multi-criteria search interface enables the user to display and print generated remittances of the day.

- Inter-bank remittances;
- Cross-country remittances;
- Intra-bank remittances.

### III.3.6.3.7.5 Received remittances enquiry

A multi-criteria search interface enables the user to display and print from clearing received remittances of the day.

- Inter-bank received remittances;
- Cross-country received remittances;

Results can be printed or saved in a file.

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 66/141</b>			

### III.3.6.3.7.6 Net balance Enquiry

The ADT Administration module enables viewing in real time calculated net balance, after each remittance generation and/or receipt from the Clearing House.

This screen displays per instrument and per currency the net balance so far calculated. A global net balance all instruments included can also be displayed

The net balance could be printed or saved in a file.

### III.3.6.3.7.7 Net balance comparison

When receiving final net balance from the Clearing House, **ADT-Controle** proceeds to its comparison with his own calculated net balance.

Two results are possible:

1. Identical results: the comparison result is displayed in comparative table showing bilateral balances per instrument and currency.
2. Comparison discrepancies: the comparison result is displayed in comparative table showing bilateral balances per instrument and currency. Discrepancies are displayed with a specific colour and an alert message is also displayed.

### III.3.6.3.7.8 Control alerts enquiry

All control errors are available on a specific screen in which are displayed error details.

Information displayed contains mainly is:

- Alert date and time;
- Defective file;
- Control error details: error line number, error code, error label, etc...

### III.3.6.3.8 Statistics management

The ADT Administration module enables consulting and printing of the following statistics:

- Exchanged transactions statistics : total volume and number of exchanged transaction within a chosen period of time;
- processed remittances statistics : Number and amount of generated, received, acknowledged, settled and rejected remittances per exchange date and transaction nature;

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 67/141</b>			

- Cumulative statistics;

The result could be printed or saved in a file.

### *III.3.6.3.9 Resumption management*

Two kinds of resumptions are available on **ADT-Admin**:

- Control resumption: concerns files having been rejected during the control step.
- Generation resumption: the resumption implies regeneration of the triplicate of files (.ENV/RCP, .CAT and .PAK). The re-generated remittance(s) will keep the same name as the initial.

## **III.3.7 FUNCTIONAL DESCRIPTION OF THE MODULE POSTE ADHERENT**

### **III.3.7.1 Presentation**

**Hannibal-Poste-Adherent** represents the unique access point to the Clearing House through which all exchanges between the Clearing House and the participants are done.

**Hannibal-Poste-Adherent** is exclusively in charge of performing all the exchanges with the Clearing House. The main functions performed by **Hannibal-Poste-Adherent** are:

- Submission of remittances for their processing by the Clearing House.
- Monitoring of sent remittances and operations to the Clearing House.
- Receiving the incoming remittances and the outputs of the clearing process.

### **III.3.7.2 Functionalities**

#### *III.3.7.2.1 Groups, users and Access rights management*

As branch modules, this module provides the same functionalities of groups, users, right access and passwords management.

#### *III.3.7.2.2 Fixed data file loading*

The fixed data file is an MS-Access database which is automatically loaded by **Hannibal-Poste-Adherent**. This Fixed data file contains several elements:

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 68/141</b>			

- Bank and branches codes
- Instruments codes (Maturity, rejection periods, settlement periods, cancellation period, Accounting ending Time...)
- Currencies
- Rejection reasons codes.
- Clearing day profile.
- Batches control rules.
- Business rules.
- Holidays.
- Etc.

After updating its fixed data, **Hannibal-Poste-Adherent** updates the « Date of Last loaded Fixed data » parameter.

### *III.3.7.2.3      New date loading*

« **Date** » files, also called « session date » files are generated each clearing day end and are sent to the participants through the central **Hannibal-Autocollecte** that will deposit them on the reception mailbox of **Hannibal-Poste-Adherent**.

The «**Date**» file is automatically loaded as soon as it is detected by **Hannibal-Poste-Adherent** that will execute the following operations:

- Delete the sending mailbox that contains the last day files;
- Updates its own session date.

### *III.3.7.2.4      Inter-bank and inter-country remittance deposit*

(**ENV**) data files and (**CAT/PAK**) image files generated by **Hannibal-ADT** must be deposited at the **Hannibal-Poste-Adherent** module.

The module offers two ways for depositing remittances:

- The Manual deposit of remittances : remittances are manually loaded in the application using a deposit menu
- The automatic deposit of remittances: remittances are automatically loaded in the application as soon as they are detected in a defined folder.

For image required instruments, a triplicate of files .ENV, .CAT and .PAK having the same name must be deposited together (manual or automatic deposit).

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 69/141</b>			



- **ENV file:** containing transactions data.
- **CAT/PAK files:** containing images and their indexes.

For non image required instruments only an .ENV file must be deposited.

Global record contains global data of the remittance such as: The instrument code, the record code, the presentation date, the remitting participant code, the total number, total amount and currency

Detail records contains in addition to the global data, specific data for each transaction such as: The transaction number (Cheque number, transfer number, etc....) its amount and its currency, the payer/drawer BBAN, the beneficiary/assignor BBAN, the issuing date, the maturity date (for direct debits and bills of exchange), etc...

The bank will generate these files according to a specific generation frequency. Thus, for a given instrument and a given transaction code (i.e. presentation, rejection or cancellation) several files may be deposited in Hannibal-Poste-Adherent during the same day.

Inter-bank remittances deposit is conditional to two parameters: Deposit starting time and deposit ending time.

These two schedules, fixed by the Clearing House, are loaded at the level of Poste Adherent from the fixed data file.

When depositing (manual deposit), the application compare the system time (of the deposit) to these two parameters and proceeds as follows:

- If the system time is included in [Deposit Starting Time, Deposit Ending Time] → the deposit screen is activated.
- Else, the deposit screen is inhibited.

In case of automatic deposit, the application compare the system time (of the deposit) to these two parameters and proceeds as follows:

- If the system time is included in [Deposit Starting Time, Deposit Ending Time] → the remittance is detected and loaded by the application for control.
- Else, the remittance is not detected by the application.

### III.3.7.2.4.1 Deposited remittances control

When depositing remittances, the following controls are executed:

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 70/141</b>			

1. Syntactical and logical control of data files;
  2. Duplications control;
  3. Image files control;
  4. Reconciliation between data and image.
- In case of manual deposit: these controls are triggered by the user when pressing the "control remittance" button.
  - In case of automatic deposit: these controls are automatically triggered as soon as the application detects the remittances in a defined folder.

### **III.3.7.2.4.2**      Syntactical and logical controls of data files (ENV)

#### **III.3.7.2.4.2.1**      **Syntactical control**

This control aims at checking:

- Files integrity;
- The completeness of data records ;
- The compliance with pre defined field types.

Invalid files will be fully rejected by **Hannibal-Poste-Adherent**. In case of an image required instrument the triplicate ENV/CAT/PAK is rejected.

An alert and details of errors will be displayed at the screen. A report of the alert can be printed or saved in a file.

#### **III.3.7.2.4.2.2**      **Logical control**

It includes the consistency control of the coherence of data according to the control rules set on the ACH and loaded from the Fixed data.

Invalid files will be fully rejected by **Hannibal-Poste-Adherent**. In case of an image required instrument the triplicate ENV/CAT/PAK is rejected.

An alert and details of errors will be displayed at the screen. A report of the alert can be printed or saved in a file.

#### **III.3.7.2.4.3**      Duplications control

The first control level is done for the file: a deposited remittance at **Hannibal-Poste-Adherent** can't be re-deposited on the same day.

If such remittance is found, it will be rejected and an error message is displayed.

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 71/141</b>			

The second control level consists of checking duplications within the same file.

Invalid files and their corresponding image files (if it is an image required instrument) will be totally rejected by **Hannibal-Poste-Adherent**.

Details of errors will be displayed at the screen. An error report can be printed or saved in a file.

#### **III.3.7.2.4.4** Image file control

This control consists of:

- CAT File format validity control: controlling file structure and its integrity;
- Checking concordance of data contained in the two (CAT and PAK) index and package files;
- Image size control: Each unitary image size (both sides included) must not exceed the maximum size defined on the Fixed data.
- Authenticating images using the participant public key.

When an error is detected at this level, the three files set (numeric remittance, PAK and CAT) is rejected by **Hannibal-Poste-Adherent** and errors are displayed.

#### **III.3.7.2.4.5** Reconciliation between images and data

This control is used to check that no data requiring an image is transferred to the Clearing House without image, and that no image is sent to the Clearing House without its corresponding data. This control also checks the concordance of information contained in both image and data files.

When an error is detected at this level, the three files set (numeric remittance, PAK and CAT) is rejected by **Hannibal-Poste-Adherent** and errors are displayed.

#### **III.3.7.2.4.6** Displaying errors

After these various controls described above, **Hannibal-Poste-Adherent** displays the error list related to each control type, for the wrong files.

In case of detected error, the whole controlled remittance (and the triplicate file in case of image required instrument) is rejected.

#### **III.3.7.2.5** Deposit validation

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 72/141</b>			





In case of manual deposit, When the controlled file(s) don't reveal any errors, **Hannibal-Poste-Adherent** displays sub-totals per recipient participant and asks for deposit validation from the operator.

When the remittance to be deposited corresponds to an image required instrument, the control, the deposit and the sending to clearing is performed for the triplicate files: ENV data file and its corresponding CAT and PAK files. This allows avoiding that data getting through the system without its images and vice versa.

Thus, when confirming the deposit operation and after encrypting files, the triplicate files are compressed in one file in the sending folder.

In case of automatic deposit of remittances, no deposit conformation is needed.

When depositing remittances, the settlement date will be calculated according the instrument and the deposit time. If the accounting ending time is reached, the settlement date will be increased by 1 day.

Deposited remittances will be automatically moved from the "Remittance deposit" folder to the "Deposited remittances" folder.

### III.3.7.2.6 Images and data encryption

Once files are successfully controlled, files are encrypted by the ACH public key (and then compressed for image required instruments) before being copied on mailbox (sending folder) of **Hannibal-Poste-Adherent**.

Encryption is performed for controlled images and data successfully controlled.

### III.3.7.2.7 Received files from clearing enquiry

The incoming files and results of the clearing process are received within **Hannibal-Poste-Adherent** for head office processing.

As for outgoing files, incoming files for image required instruments will include 3 different files (RCP, CAT, PAK) compressed into a single file. For non image required instruments, the incoming files will only include RCP files.

Return remittances related to different instruments (direct credits, direct debits, bills of exchange, card transactions) which may be enumerated as follow:

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 73/141</b>			

- Received presentation/representation remittances.
- Presentation/representation cancellation remittances.
- Received rejection remittances.
- Cancellation of received rejection remittances.

For image required instruments (Cheques and bills of exchange), return remittances contains triple files (RCP, CAT and PAK) while non image required instruments contains only RCP files.

The Clearing House also sends the following rejections and alerts during the day:

- Regulatory rejections (.RJT) of the Clearing House: expired period, unauthorized operation;
- Technical rejection of the Clearing House: invalid remittance, structure error;
- Alerts of Participant debit limit exceeding (.ALR);
- Information messages and free messages.

The incoming clearing processing results are mainly the following:

Intermediate results

- Intermediate net balance (.SNI) : Integrating per participant for each instrument code and currency the calculated net balance from the session/day beginning till the generation time;
- Global intermediate net balance per instrument (.SIV) : Including, per participant for each instrument group (presentation and representation included) and currency , the calculated net balance from the day/session beginning till the generation time;
- Global intermediate net balance (.SIG): Including, per participant per currency and for all instruments included calculated net balance since the day/session beginning till the generation time.

Day results

- Final net balance (.SND) : Including per participant for each instrument code and currency, bilateral balances containing all the day operations and the net balance per participant;

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 74/141</b>			

- Global final net balance per instrument (.SDV) : Including per participant, for each instrument group (presentation and representation included) and currency, the bilateral balances containing all the operations of the day and the net balance of the day;
- End of the day global net balance (.SNG) : Including per participant, per currency and for all instruments included, bilateral balances containing all operations of the day and the net global balance of the day;
- Settlement schedule (.ECH) : taking into account the type of instrument and the settlement period, the system processes a settlement schedule for the participant operations for the day in process (net balance to settle) and the **n** coming working days (**n** being the maximum settlement delay defined in the system);
- Invoice files (.FCT) : These files are generated automatically by the Clearing House and transmitted to participants with their clearing results;
- End of session reports per currency (.CRS) and end of day reports per currency (.CPR);
- Transaction reports per instrument and per currency

### *III.3.7.2.8      Extraction of Clearing House results*

All clearing results received at the level of **Hannibal-Poste-Adherent** may be extracted in a defined folder to be used by the core banking system.

The module offers two ways of recovering the received files

- The manual recovery which is triggered by the user.
- The automatic recovery which is triggered automatically as soon as the application detects the received files from the Clearing House

While recovering, the following operations are executed:

- Decrypting received files;
- Authenticating image with the ACH public key;
- Decompressing the triplicate of files related to image instruments.

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>• Draft</li> <li>• To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 75/141</b>			

### *III.3.7.2.9 Clearing Results*

#### **III.3.7.2.9.1 Received clearing remittances**

All received remittances may be printed in **Hannibal-Poste-Adherent**.

#### **III.3.7.2.9.2 Net balance printing**

The different results issued by the Clearing House can be displayed and printed according to several research criteria:

Net balance reports enable the user viewing per currency and per instrument: Summary of issued and received transactions;

- The total credit of the bank;
- The total debit of the bank;
- The bank balance: creditor or debtor position.

Net balance could be printed or saved in a file

#### **III.3.7.2.9.3 Invoices**

Same as net balance, invoices files received at each invoicing period end may be displayed and printed.

### *III.3.7.2.10 Processing's monitoring*

#### **III.3.7.2.10.1 Sent remittances display**

This screen is the participant dashboard, for monitoring sent remittances to the Clearing House status. It displays the following information:

- The list of all deposited remittances;
- Collection time: is displayed in front of the remittance as soon as it is collected by **Hannibal-Autocollecte**.
- The status of the remittance

Sent Remittances List and details may be printed or saved in a file.

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 76/141</b>			

### III.3.7.2.10.2 Reports

At the end of the day, and at each session end (in multi-sessions case), the system generates processing report to remitting participants, including processing results concerning their remittances. Once received on the reception mailbox, these reports can be displayed in **Hannibal-Poste-Adherent**.

Displayed information concerns only sent batch. It is for each remittance:

- The remittance name;
- The remittance currency;
- Arrival date and time;
- Processing starting and ending time;
- Final settlement date;
- Final presentation date;
- Remittance control status: totally accepted, partially rejected, totally rejected;
- Total number and amount of accepted transactions on the remittance;
- Total number and amount of rejected transactions on the remittance;

The Reports details may be printed or saved in a file.

### III.3.7.2.10.3 Alerts

The participant may display the received alerts of the day referring to its deposited remittances.

### III.3.7.2.10.4 Free Messages

The participant can display all received free messages and system messages received from the Clearing House

The displayed information is the following:

- File name;
- Message type:
  - system information message: (i.e. : participant exclusion/suspension, special Holiday) ;
  - Free messages: messages received from other participants;

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 77/141</b>			

A display button allows viewing and printing the message content.

### III.3.7.2.11 Keys management

**Hannibal-Poste Adherent** uses:

- The participant public key authenticate image files,
- Public Clearing House key to encrypt files to be sent to the Clearing House;
- The participant private key to decrypt clearing return files.

#### III.3.7.2.11.1 Participant key loading rules

The loading rules of the participant key are the following:

- The key is loaded definitively when controlling and depositing the first image batch of the day;
- This loaded key must satisfy the following conditions:
  - Must be valid;
  - In case where there are several valid keys, the loaded key must be the most recent.

#### III.3.7.2.11.2 Manual keys loading

When the “**Poste Adherent**” is exceptionally isolated (network failure) and the bank key, used to sign images has not arrived, it has the possibility to load it manually.

When manually loading a key, two cases are possible:

- If a key loading isn't done yet then:
  - 1<sup>st</sup> case: The manually loaded key is valid and more recent than the last generated valid key on the database: It is the manually loaded key that will be loaded;
  - 2<sup>nd</sup> case: The manually loaded key is valid and older than the last valid generated key on the database: then, it is the most recent key that is loaded (and not the manually loaded one);
- If a key loading has already been done on the same day: the manually loaded key can no more be loaded for that day.

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated <ul style="list-style-type: none"> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 78/141</b>			

### III.3.7.2.11.3 Keys transfer

**Hannibal Poste-Adherent** is in charge of keys transfer between the participant platform and the Clearing House:

- Routing the Clearing House public key to **Hannibal Generateur de Clés**;
- Routing the participant key to the Clearing House.

When **Hannibal Poste-Adherent** transfers the participant key to the Clearing House, an acknowledgment must be returned attesting the reception of the key.

### III.3.7.2.11.4 Keys Display

A specific interface allows the user to display Clearing House and all participating institutions electronic keys. Displayed information about keys is the following:

- Key reference
- Key size.
- Generation date, starting validity date, expiry date, status (new, in use, cancelled, archived)

Participant

### III.3.7.2.11.5 SSL messages Display

This heading enables displaying all SSL messages related to keys and acknowledgements transmission. Displayed information about SSL messages is the following:

- Message reference
- Message type: Key, acknowledgement.
- Sender, Receiver.
- Number of tentative of transmission
- status (success, failure, pending)

The screen also enables manual retransmission of keys having a transmission failure.

### III.3.7.2.12 Indirect participating mode

Indirect participants could use their direct participant platform to deposit and recover their clearing batches.

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 79/141</b>			

### *III.3.7.2.13 Events Display*

**Hannibal-Poste Adherent** stores all events about operations performed by the application in order to be tracked during a period of time. Beside the operation type, the application also stores the date and time of the operation and the concerned user.

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 80/141</b>			



## IV. IMPLEMENTATION PLAN

The last validated version of the implementation plan is the following:

Task Name	Start	Finish
<b>CONTRACT SIGNATURE</b>	<b>25/02/2010</b>	<b>25/02/2010</b>
<b>PROJECT LAUNCHING</b>	<b>31/03/2010</b>	<b>28/04/2010</b>
<b>FUNCTIONAL VALIDATION IN GAMBIA</b>	<b>04/05/2010</b>	<b>09/06/2010</b>
Standard version installation	04/05/2010	07/05/2010
Training "General overview of the solution"	10/05/2010	14/05/2010
GAP analysis	17/05/2010	21/05/2010
Updating detailed functional specifications by BFI	24/05/2010	31/05/2010
Validation of functional specifications by WAMI	09/06/2010	09/06/2010
<b>PRELIMINARY STUDY</b>	<b>11/06/2010</b>	<b>27/08/2010</b>
Participants guide delivery (English version)	11/06/2010	11/06/2010
On site missions and meetings with participants (Sierra Leone and Gambia)	22/06/2010	08/07/2010
First pre-requisite monitoring committee (Gambia)	09/07/2010	09/07/2010
Participants guide delivery (French version)	02/08/2010	02/08/2010
On site missions and meetings with participants (Guinea)	23/08/2010	27/08/2010
Second pre-requisite monitoring committee (Guinea)	27/08/2010	27/08/2010
<b>SETTINGS AND PERSONALIZATIONS</b>	<b>17/06/2010</b>	<b>01/09/2010</b>
Setting Document	12/07/2010	17/08/2010
Customization and Settings	17/06/2010	01/09/2010
Personalized solution delivery to WAMI	01/09/2010	01/09/2010

Task Name	Start	Finish
<b>GAMBIA DEPLOYMENT</b>	<b>05/07/2010</b>	<b>15/07/2011</b>
<b>INFRASTRUCTURES DELIVERY AND RECEPTION</b>	<b>05/07/2010</b>	<b>10/12/2010</b>
Technical preparation of the test site and the production site	05/07/2010	20/07/2010
Equipment delivery	15/11/2010	19/11/2010
Equipments installation and testing (Main site and Backup)	22/11/2010	10/12/2010
<b>CUSTOMIZED SOLUTION VALIDATION</b>	<b>30/08/2010</b>	<b>10/12/2010</b>

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 81/141</b>			

Training for Central Banks PIT (Tunis)	30/08/2010	24/09/2010
Platform installation for solution validation	25/10/2010	29/10/2010
Unitary tests	01/11/2010	19/11/2010
Modules integration tests	29/11/2010	09/12/2010
Customized solution validation	10/12/2010	10/12/2010
<b>TRAINING (Banjul)</b>	<b>10/01/2011</b>	<b>18/02/2011</b>
Participant IT functional training	10/01/2011	14/01/2011
Participant IT functional training	17/01/2011	21/01/2011
Participant IT technical training	24/01/2011	28/01/2011
Scanner training	31/01/2011	31/01/2011
Participant IT technical training	01/02/2011	07/02/2011
Scanner training	08/02/2011	08/02/2011
Participant end user functional training	24/01/2011	04/02/2011
Participant end user functional training	24/01/2011	04/02/2011
CBG IT training	09/02/2011	15/02/2011
CBG end user training	09/02/2011	18/02/2011
<b>DEPLOYMENT AND TEST ON PILOT SITE</b>	<b>12/01/2011</b>	<b>31/03/2011</b>
Deployment Plan	12/01/2011	17/01/2011
System Setup on target equipments	07/02/2011	11/02/2011
Deployment	14/02/2011	22/02/2011
Pilot site tests	23/02/2011	31/03/2011
<b>PARALLEL-RUN AND GO-LIVE</b>	<b>01/04/2011</b>	<b>02/05/2011</b>
Parallel-Run tests	01/04/2011	27/04/2011
System Go-Live	28/04/2011	02/05/2011
<b>START UP ASSISTANCE AND TEMPORARY ACCEPTANCE</b>	<b>03/05/2011</b>	<b>02/08/2011</b>
Support service set up assistance during 3 months	03/05/2011	02/08/2011
Temporary Acceptance and warranty start	02/08/2011	02/08/2011

Task Name	Start	Finish
<b>SIERRA LEONE DEPLOYMENT</b>	<b>22/06/2010</b>	<b>28/10/2011</b>
<b>INFRASTRUCTURES DELIVERY AND RECEPTION</b>	<b>22/06/2010</b>	<b>25/03/2011</b>
Technical preparation of the test site and the production site	22/06/2010	20/07/2010
Equipment delivery	28/02/2011	04/03/2011
Equipment installation and testing	07/03/2011	25/03/2011
<b>TRAINING (Freetown)</b>	<b>28/03/2011</b>	<b>18/05/2011</b>
Participant IT functional training	28/03/2011	01/04/2011

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 82/141</b>			

Participant IT functional training	04/04/2011	08/04/2011
Participant IT technical training	11/04/2011	15/04/2011
Scanner training	18/04/2011	18/04/2011
Participant IT technical training	19/04/2011	25/04/2011
Scanner training	26/04/2011	26/04/2011
Participant end user functional training	11/04/2011	22/04/2011
Participant end user functional training	25/04/2011	06/05/2011
BoSL IT training	27/04/2011	03/05/2011
BoSL end user training	09/05/2011	18/05/2011
<b>DEPLOYMENT AND TEST ON PILOT SITE</b>	<b>19/05/2011</b>	<b>28/06/2011</b>
Deployment Plan	19/05/2011	24/05/2011
System Setup on target equipments	19/05/2011	25/05/2011
Deployment	26/05/2011	06/06/2011
Pilot site tests	07/06/2011	28/06/2011
<b>PARALLEL-RUN AND GO-LIVE</b>	<b>29/06/2011</b>	<b>29/07/2011</b>
Parallel-Run tests	29/06/2011	26/07/2011
System Go-Live	27/07/2011	29/07/2011
<b>START UP ASSISTANCE AND TEMPORARY ACCEPTANCE</b>	<b>01/08/2011</b>	<b>28/10/2011</b>
Support service set up assistance during 3 months	01/08/2011	28/10/2011
Temporary Acceptance and warranty star	28/10/2011	28/10/2011

Task Name	Start	Finish
<b>GUINEA DEPLOYMENT</b>	<b>23/08/2010</b>	<b>13/01/2012</b>
<b>INFRASTRUCTURES DELIVERY AND RECEPTION</b>	<b>23/08/2010</b>	<b>10/06/2011</b>
Technical preparation of the test site and the production site	23/08/2010	29/10/2011
Material set delivery	16/05/2011	20/05/2011
Material installation and testing	23/05/2011	10/06/2011
<b>TRAINING</b>	<b>13/06/2011</b>	<b>03/08/2011</b>
Participant IT functional training	13/06/2011	17/06/2011
Participant IT functional training	20/06/2011	24/06/2011
Participant IT technical training	27/06/2011	01/07/2011
Scanner training	04/07/2011	04/07/2011
Participant IT technical training	05/07/2011	11/07/2011
Scanner training	12/07/2011	12/07/2011
Participant end user functional training	27/06/2011	08/07/2011
Participant end user functional training	11/07/2011	22/07/2011

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 83/141</b>			

BCRG IT training	13/07/2011	19/07/2011
BCRG end user training	25/07/2011	03/08/2011
<b>DEPLOYMENT AND TEST ON PILOT SITE</b>	<b>04/08/2011</b>	<b>13/09/2011</b>
Deployment Plan	04/08/2011	09/08/2011
System Setup on target equipments	04/08/2011	10/08/2011
Deployment	11/08/2011	22/08/2011
Pilot site tests	23/08/2011	13/09/2011
<b>PARALLEL-RUN AND GO-LIVE</b>	<b>14/09/2011</b>	<b>13/10/2011</b>
Parallel-Run tests	14/09/2011	10/10/2011
System Go-Live	11/10/2011	13/10/2011
<b>START UP ASSISTANCE AND TEMPORARY ACCEPTANCE</b>	<b>14/10/2011</b>	<b>13/01/2012</b>
Support service set up assistance during 3 months	14/10/2011	13/01/2012
Temporary Acceptance and warranty start	13/01/2012	13/01/2012

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 84/141</b>			

## V. PREREQUISITE TO THE SYSTEM IMPLEMENTATION

To participate to the clearing system exchanges, participating institutions will be required to:

- Comply with system new standards (Instruments codes, transaction codes, rejection reasons codes, MICR codeline, etc.)
- Respect the system exchange rules (Exchanges period, remittance control rules, etc...).
- Providing remittances to be sent for clearing (direct credits and direct debits)
- Loading of outgoing cheques and bill of exchanges remittances in order to be taken into account by the CBS.
- Loading of Incoming remittances.
- Upgrade Network
- Security (network, rooms access ...)

### V.1 CHEQUE STANDARDS

#### V.1.1 PAPER CHEQUE DIMENSIONS AND WEIGHT

The new cheque forms must meet the following specifications:

Cheque Type / dimensions	Small cheque	Large cheque	
		Manual infill	Computer Infill
Length	6 <sup>7/8</sup> inches / 174.6 mm	6 <sup>7/8</sup> inches / 174.6 mm	8 <sup>1/4</sup> inches / 210 mm
Height	2 <sup>7/8</sup> inches / 73 mm	3 <sup>7/8</sup> inches / 99 mm	3 <sup>7/8</sup> inches / 99 mm
Grammage	95 gram ± 5%		

Tolerance: ± 1/16 inch (1.6 mm) vertically and ± 1/20 (1.3 mm) horizontally

#### V.1.2 CHEQUE MICR STRUCTURE

The structure of the new MICR track is as follow:

Order	Name	Starting Position	Length	Description
1	Cheque Number	2	08	
2	Drawn Country code	11	02	01 (GM) / 05 (SL) / 03 (GN)
3	Drawn bank code	13	03	
4	State code	16	02	
5	Drawn branch code	18	03	
6	Account number	22	10	
7	Account number Check digit	32	02	Modulo97 : include the bank code, branch code and the account number

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 85/141</b>			

8	Transaction code	35	02	01 : Personal cheque 02 : Corporate cheque 03 : Bank Draft
9	Currency code	37	03	270 (GM) /694 (SL) / 324 (GN)
10	MICR Check Digit	40	02	Modulo97 include all MICR digits (35 digits)
<b>Total</b>			<b>37</b>	

### V.1.3 MICR CODELINE FORMAT

E13B	0 1 2 3 4 5 6 7 8 9 10 11 12 13
CMC7	1 2 3 4 5 6 7 8 9 0 11 12 13 14 15

E13B		CMC7	
Transit symbol (Symbol10)	10	Séparateur SIV	10
Amount symbol (Symbol11)	11	Séparateur SI	11
On-Us symbol (Symbol12)	12	Séparateur SIII	12
Dash symbol (Symbol13)	13	Séparateur SII	13

#### V.1.3.1 E13B

Positions are calculated from the left to the right

Order	Name	Starting Position	Length	Description
	<b>Symbol12/ On-Us symbol</b>	<b>1</b>	<b>01</b>	
1	Cheque Number	2	08	
	<b>Symbol12/ On-Us symbol</b>	<b>10</b>	<b>01</b>	
2	Drawn Country code	11	02	01 (GM) /05 (SL) / 03 (GN)
3	Drawn bank code	13	03	
4	State code	16	02	
5	Drawn branch code	18	03	
	<b>Symbol10 / Transit symbol</b>	<b>21</b>	<b>01</b>	
6	Account number	22	10	
7	Account number Check digit	32	02	Modulo97 : include the bank code, branch code and the account number
	<b>Symbol12/ On-Us symbol</b>	<b>34</b>	<b>01</b>	

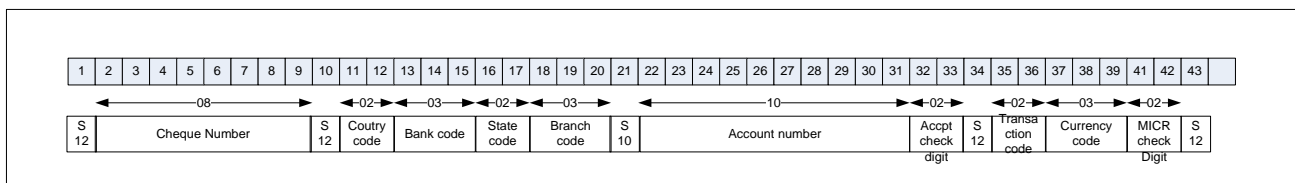
<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 86/141</b>			

8	Transaction code	35	02	01 : personal cheque 02 : corporate cheque 03 : bank Draft
9	Currency code	37	03	270 (GM) /694 (SL) / 324 (GN)
10	MICR Check Digit	40	02	Modulo97 include all MICR digits (35 digits)
<b>Symbol11/ Amount symbol</b>		<b>42</b>	<b>01</b>	
<b>Total with separators</b>		<b>43</b>		
<b>Total without separators</b>			<b>37</b>	

### V.1.3.2 CMC7

Positions are calculated from the left to the right

Order	Name	Starting Position	Length	Description
	<b>Séparateur SIII</b>	<b>1</b>	<b>01</b>	
1	Cheque Number	2	08	
	<b>Séparateur SIII</b>	<b>10</b>	<b>01</b>	
2	Drawn Country code	11	02	01 (GM) /05 (SL) / 03 (GN)
3	Drawn bank code	13	03	
4	State code	16	02	
5	Drawn branch code	18	03	
	<b>Séparateur SIV</b>	<b>21</b>	<b>01</b>	
6	Account number	22	10	
7	Account number Check digit	32	02	Modulo97 : include the bank code, branch code and the account number
	<b>Séparateur SIII</b>	<b>34</b>	<b>01</b>	
8	Transaction code	35	02	01 : personal cheque 02 : corporate cheque 03 : bank Draft
9	Currency code	37	03	270 (GM) /694 (SL) / 324 (GN)
10	MICR Check Digit	40	02	Modulo97 include all MICR digits (35 digits)
	<b>Séparateur SI</b>	<b>42</b>	<b>01</b>	
<b>Total with separators</b>		<b>43</b>		
<b>Total without separators</b>			<b>37</b>	



<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 87/141</b>			

## V.2 ACCOUNT NUMBER FORMAT (BBAN)

### V.2.1 BBAN CODIFICATION

The Account number (BBAN) is codified over 18 Positions as follows:

Order	Fields	Length	Type	Comment
1	The bank code	03	Number	Completed with 0 on the left
2	The branch code	03	Number	Completed with 0 on the left
3	Account number	10	Number	Completed with 0 on the left
4	Account Check Digit	02	Number	-
<b>Total</b>		<b>18</b>		

## V.3 CHECK DIGITS (MODULO 97)

### V.3.1 ACCOUNT CHECK DIGIT (MODULO 97)

#### V.3.1.1 Account Check digit Computing

The assembly formed in order by the bank code, branch code and account number constitutes a number N of 16 digits.

Multiply N by 100 = N'.

Divide N' by 97.

The rest of the Euclidean division of N' by 97 (mod 97) can take values between 00 and 96.

Therefore, the result of the following subtraction (97 - (N' mod 97)) can only take values between 01 and 97. It represents the Account Check digit (two digits).

Example:

Bank Code	Branch Code	Account number	Account Check Digit (*)
001	001	0000000111	<b>57</b>

$N = 0010010000000111$

$N' = 001001000000011100$

Rest of the Euclidean division of N' by 97 (mod 97) = MOD (001001000000011100; 97) = 40

(\*) Account Check digit = 97-40 = 57

BBAN = 0010010000000111**57**

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 88/141</b>			



### V.3.1.2 Account Check digit verification

The assembly formed in order by the bank code, branch code, account number and Check digit constitutes a number N of 18 digits.

The rest of the Euclidean division of N by 97 must be 0.

$$\text{MOD} ('001001000000011157'; 97) = 0$$

### V.3.2 MICR CHECK DIGIT (MODULO 97)

#### V.3.2.1 MICR check digit computing

The assembly formed in order by the cheque Number, Country code, bank code, State code, branch code, Account number, Account number Check digit, Transaction code and Currency code constitutes a number N of 35 digits.

Multiply N by 100 = N'.

Divide N' by 97.

The rest of the Euclidean division of N' by 97 (mod 97) can take values between 00 and 96.

Therefore, the result of the following subtraction (97 - (N' mod 97)) can only take values between 01 and 97. It represents the MICR check digit (two digits).

**Example:**

Cheque Number	Country code	Bank Code	State code	Branch Code	Account number	Account Check Digit	Transaction code	Currency code	MICR Check Digit (*)
01234567	01	001	01	001	0000000111	57	01	270	53
01234567	03	001	01	001	0000000333	70	01	324	47
01234567	05	001	01	001	0000000555	83	01	694	63

$$N = 01234567010010100100000001115701270$$

$$N' = 0123456701001010010000000111570127000$$

$$\text{Rest of the Euclidean division of } N' \text{ by } 97 \text{ (mod } 97) = \text{MOD} (1234567801001010010000000111570127000; 97) = 44$$

$$(*) \text{ MICR} = 97 - 44 = 53$$

$$\text{MICR} = 0123456701001010010000000111570127053$$

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 89/141</b>			

### V.3.2.2 MICR check digit verification

The assembly formed in order by the cheque Number, Country code, bank code, State code, branch code, Account number, Account number Check digit, Transaction code, Currency code and MICR check digit constitutes a number N of 37 digits.

The rest of the Euclidean division of N by 97 must be 0.

$$\text{MOD} ('0123456701001010010000000111\mathbf{57}01270\mathbf{53}'; 97) = 0$$

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 90/141</b>			

## V.4 EXCHANGE MANAGEMENT

### V.4.1 EXCHANGE FORMATS

#### V.4.1.1 Remittance exchange

##### V.4.1.1.1 Remittance names

The different participating institutions to the ACP/ACH will exchange electronic files, named « Remittances », structured according to pre-defined formats and obeying to specific control rules.

Exchanged remittances concern:

- Image values: paper transfer, paper direct debits, cheques and bills of exchange.
- Non image values: bank transfers, direct debits, card transactions.

For image values each remittance includes a triple file ENV, CAT and PAK that must be deposited together in the ACP Front End platform

- ENV file: containing outgoing remittance data.
- CAT/PAK files containing outgoing images and their indexes.

Non image value remittances contain only ENV files.

Remittance can be treated by the deposit module (Hannibal-PosteAdherent) only the deposit period

After processing, the clearing house generates return remittances to the Recipient participants.

For image values, received remittances from the Automated Clearing House contain three files: RCP, CAT and PAK that are received together at the ACP End Front platform.

RCP file: containing incoming Remittance data... (Same structure as ENV files.)

CAT/PAK files: containing incoming images and their indexes.

For non image values, received remittances from the Automated Clearing House contain only RCP files (same structure as ENV files).

*Example of remittances:*

- - *Inter-bank image value remittance: cheque*
- *01-GM-XXXXX-21012010-141510-30-21-270.ENV*

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 91/141</b>			

- 01-GM-XXXXX-21012010-141510-30-21-270.CAT
- 01-GM-XXXXX-21012010-141510-30-21-270.PAK
- - Inter-bank non image value remittance: direct credit
  - 01-GM-XXXXX-22012011-113000-10-21-270.ENV
- Intra-banking image value remittance: cheque
  - 00-GM-XXXXX-21012010-141510-30-21-270.ENV
  - 00-GM-XXXXX-21012010-141510-30-21-270.CAT
  - 00-GM-XXXXX-21012010-141510-30-21-270.PAK
- Intra-banking non image value remittance: direct credit
  - 00-GM-XXXXX-22012011-113000-10-21-270.ENV

#### V.4.1.1.2 Remittance Constitution

Remittances files contain all the operations presented by a participant per instrument and per transaction code.

A participant can present an unlimited number of remittances of the same instrument and transaction code during a clearing session.

Data contained in different remittances must be conform to the fixed data of the Central Bank of each country (bank and branch codes, rejection reasons, instruments codes, etc...).

ENV/RCP files are composed of a global record and one or several detail records.

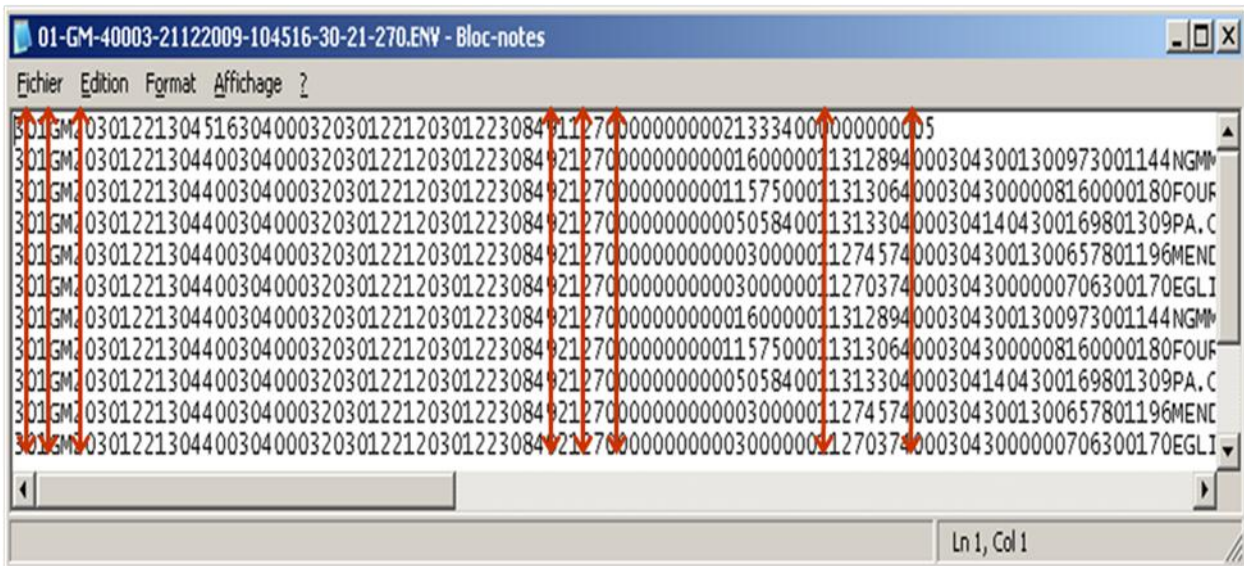
- ❑ Global record: the global record gives information concerning:
  - ✓ The remittance direction (Outgoing to the clearing house or return from the ACH to the recipient participant);
  - ✓ The value to be cleared;
  - ✓ The remitting participant;
  - ✓ The operation date;
  - ✓ The remittance number;
  - ✓ The remittance nature;
  - ✓ The total number of records ( details)
  - ✓ The total amount of all details records;

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 92/141</b>			

- ❑ Detail record: in addition to the common information of the global record, the detail records contain useful and necessary information allowing the bank to settle the related operations. That is essentially:
  - ✓ The remittent participant and branch codes;
  - ✓ The recipient participant and branch codes
  - ✓ The Drawer or payer BBAN;
  - ✓ The transaction number and amount;
  - ✓ The beneficiary BBAN and any useful reference;
  - ✓ The remittance date, presentation date, settlement date, maturity date;
  - ✓ etc.

Files structure per value is detailed in the annex.

Example of file ENV: 30-21



The bank will generate its remittances by choosing the adequate generation frequency regarding its transactions volume to present. Thus, for a given instrument, and a transaction code (i.e. presentation, rejection or cancellation) many remittances can be generated in the same day.

## V.4.2 FILES CONTROLS

### V.4.2.1 ENV/DATA file control

Controls executed on the ENV files are three types:

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>• Draft</li> <li>• To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 93/141</b>			

- ❑ Authentication: authentication enables verifying that files have not been altered or modified since their creation and till their deposit at the participant platform.
- ❑ Syntactical controls: control related to the remittances format, control over the record structures, a completeness control and a field type control.
  - Example: Existence of a numeric value a numeric field, a date in a date field.
- ❑ Logical controls: controls related to the presence of mandatory information, to the operations banking contents and their consistency.
  - Example:
    - Data conformity to the referential (Bank and branches referential, rejection reason referential, etc...),
    - Correct BBAN key,
    - Number and amount conformity between number and amount on the global records and the sum of those on the detail records, etc...

Syntactic and logical controls are executed at a first time in **participant platform** then re-executed in the clearing house. The syntactic and logical errors lead to an integral remittance rejection (ENV, CAT and PAK).

- ❑ Duplications controls: verifies that no other record having the same identifier has already been accepted by the application (same day or previous day).
- ❑ Regulatory controls: controls related to regulatory compliance by participants and some of which rely on the historical level of the database.
  - Examples :
    - Existence of an initial presentation in case of a representation,
    - Existence of an already received value in case of a rejection.
    - Existence of an already sent value in case of a cancellation.
    - Late rejection if exceeding authorized rejection period, etc...
    - Late cancellation if exceeding authorized cancellation period, etc...
    - Etc...

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 94/141</b>			



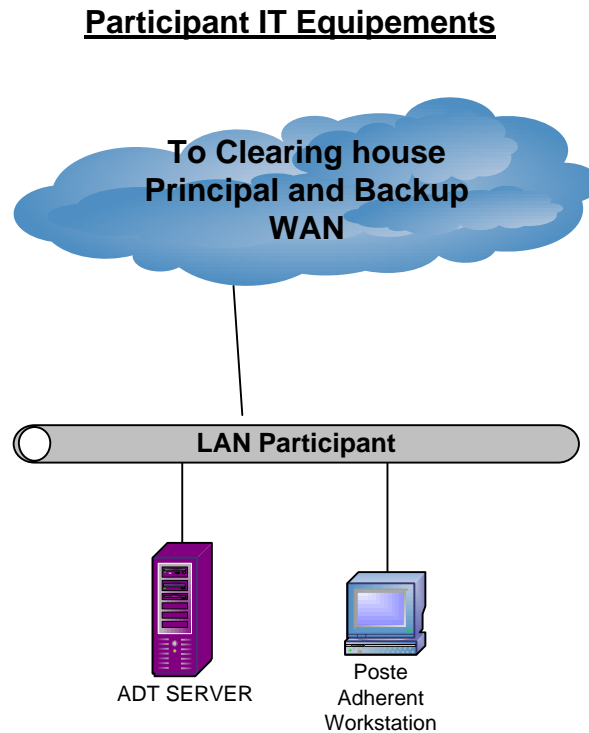
Regulatory control errors leads to a unit rejection of failure controlled operations by the clearing house. The rejection is immediately sent to the remitting bank.

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 95/141</b>			

## V.5 EQUIPMENTS

### V.5.1 PROVIDED EQUIPMENTS BY CENTRAL BANKS

The head office participants' platform is provided by the Central Bank of each country and is composed of one server and one workstation.



The configuration of the participants' platforms is the following:

#### V.5.1.1 Configuration of ADT Server

The ADT and Oracle is the IBM x3200 M3 server:

- 1 x processor Xeon X3320 2,66 GHz Quad Core.
- 4 Gb of RAM
- 4 SAS disks of 146 Gb in RAID 5
- 2 Ethernet controllers
- 17" Lenovo flat screen L174
- Windows 2008 server standard
- ORACLE Standard Edition.
- ***BFI Software : Hannibal-ADT, Hannibal-ADTAdmin, Hannibal-Autocollecte et Barberousse Générateur des clés***

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 96/141</b>			



### V.5.1.2 Configuration of participants workstations

The participant workstation is the Lenovo Think Centre A58 SFF:

- Intel Pentium Dual-Core processor 2.60GHz
- 2 GB RAM
- Disk of 360GB with two partitions
- LENOVO Thikvision L197 wide 19"
- DVD Writer
- Windows XP Pro
- **BFI Software : Hannibal Poste Adhérent**

### V.5.2 EQUIPMENTS TO BE ACQUIRED BY PARTICIPANTS

Project Scope does not include the branch equipments. Workstations and scanners that will be used by branches have to be acquired by each bank.

However, BFI licenses for branches software are provided for all participating institutions.

**BFI Software: Barberousse-Capture, Barberousse - GenerateurCles, Braberousse-GIP.**

#### V.5.2.1 Branch workstations

The minimal recommended configuration of the **Branch** workstation is:

- Processor Intel Dual Core 2,0 GHz
- Memory : 1GB RAM
- 80GB Hard drive
- Ethernet card 10/100 Mb
- USB 2.0 (connection needed for LS100 Reader)
- DVD writer
- 17" screen
- Windows Xp professional

#### V.5.2.2 Scanners

Scanner which is proposed in this project is the CTS-LS100.

The LS100 scanner is a CTS brand model which provides all necessary scanning functionalities.

The main features of this scanner are:

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 97/141</b>			

- Speed: 60 doc/minute
- Automatic feeder (100 documents)
- 1 output feeder
- Recto/verso camera
- MICR CMC7 and E13B reader
- OCR recognition
- Ink jet printer
- Image resolution : 100 and 200 dpi
- Grey level : 16, 256 and RGB Color
- Images format : DIB, BMP, JPEG et TIFF
- USB 2.0 connexion (USB1.1 compatible)

The central bank of each country will be in charge of collecting from each participating institution the estimated number of scanners to be acquired. This estimation should take into account spare scanners.

## V.6 NETWORK

It is required that the network:

- Uses a switch that supports VLAN dedicated to the participant platform.
- Has at minimum 100 Mb LAN between local machines.
- Connects the participant platform to the network of the clearing house.
- Connects the server of **Hannibal-ADT** to the participant’s internal network (linking the head office to the branches).

## V.7 SECURITY

### V.7.1 PHYSICAL ACCESS SECURITY

All equipments listed must be set up in safe offices. It is recommended for Security perimeter locations to:

- Be protected against non-authorized persons. Only one door should give access to computers’ room, and an access authorization must be granted by the security responsible.

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>• Draft</li> <li>• To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 98/141</b>			

- Have an office access system using cards, badges or biometric system administrated by a controlling software;
- Have a security camera system;
- Be protected against fire : doors must be anti-fire and fire alarms must be installed;
- Be under controlled temperature : 18° to 21°
- Have a permanent electrical supply security system for equipments.

### V.7.2 NETWORK SECURITY

In order to protect the system against every non-authorized access and avoid network intrusions, it is recommended to:

- Subdivide its network in groups of DMZ, in order to protect servers and data sources by Firewall use (filter all incoming and outgoing connections).
- Use hardware probes to detect network intrusions
- Use software probes on production servers to stop all intrusion attempts into the servers.
- Use an antivirus in the servers and the workstation.

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 99/141</b>			

## VI. FILES EXCHANGE WITH CBS

### VI.1 EXCHANGES BETWEEN BRANCH MODULES AND THE CBS

In this part, we are going to describe the different exchanges between branch clearing modules and the branch core banking system.

This configuration is mostly used by participating institutions having a decentralized core banking system (each branch operates separately and independently from the Head office)

However, the branch modules can, according to the architecture and organization of the bank, be installed at the head office as centralized modules. In this case, exchanges flows with the head office CBS will be the same as branch CBS.

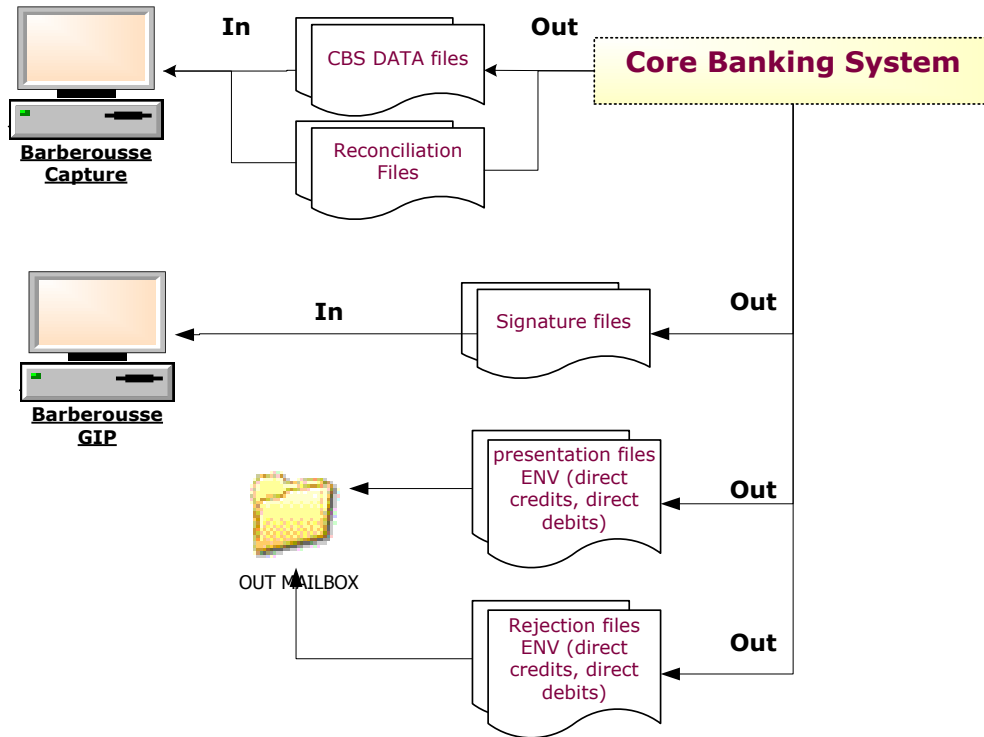
It must be noted that all these exchanges are optional and does not affect the clearing process if not considered. These exchanges aim to make useful information available in both sides (modules side and CBS side).

#### VI.1.1 BRANCH CORE BANKING SYSTEM TO BRANCH MODULES

The different exchanges described in this part deals with:

- Data Loading In **Barberousse Capture**.
- Data Reconciliations by **Barberousse Capture**
- Providing signature files for **Barberousse GIP**
- Generating presentation files for non image instruments.
- Generating rejections files for non image instruments.

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 100/141</b>			



### VI.1.1.1 Data loading in Barberousse capture

The scanning module offers two possibilities for entering information of scanned cheques and bills of exchange:

- Manual Entry of data
- Loading of data from files provided by the Core banking system.

The loading option is generally used by the CBS to avoid a double entry (in the scanning module) of information that has been already entered in the Core banking system. In this case, the CBS must provide to the capture module a file with a predefined format (Cf. Annex : Data file structure .Data ).

### VI.1.1.2 Data Reconciliation with Barberousse capture

Reconciliations can be done only in case of data double entry (in the core banking system and in the scanning module).

The capture module offers two kinds of reconciliation of data entered in **Barberousse-Capture** and in the CBS.

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 101/141</b>			

### Reconciliation 1: Global Record reconciliation

The global data reconciliation is triggered at user request. It consists of reconciling global data of each remittance in the capture application with the one entered in the branch core banking system.

1. A data file (.DATA) must be generated in **Barberousse-Capture**.
2. A reconciliation file, having the same format as data file, must be provided by the CBS (Cf. Annex Data file structure (.Data)).

### Reconciliation 2: Detail reconciliation

The detail data reconciliation is also triggered at user request. It consists of reconciling details data of each remittance with the one entered at the CBS.

3. As for the global reconciliation, reconciliation files, provided by the CBS, must have the same structure as the data file (.data) generated by the scanning module (Cf. Annex Data file structure (.Data)).

## **VI.1.1.3 Signature files display in Barberousse GIP**

**Barberousse-GIP** allows the display of scanned signatures of the account holders if they are provided in a defined file format. The signature of the account holder is displayed automatically at the right side of the instrument and the user can easily perform the conformity control of signatures. To display this signature files, the latter must be:

- In Jpeg or TIFF format.
- File name should contain the account number of the Payer.
- All Specimen files must be placed in a defined folder.

## **VI.1.1.4 Generating presentation remittances (.ENV):**

Presentation and cancellations related to non image based values should be provided by the CBS in an appropriate file format in order to be transmitted to the head office.

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 102/141</b>			

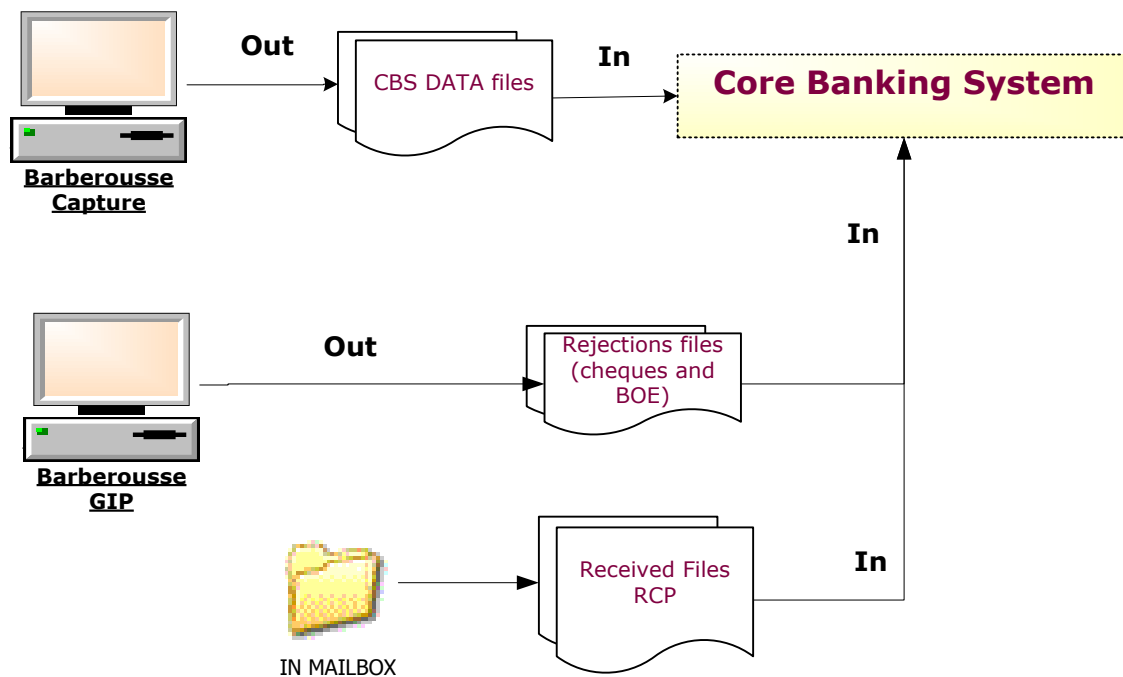
### VI.1.1.5 Generating rejection remittances (.ENV):

Rejections and rejection cancellations related to non image based values should be provided by the CBS in an appropriate file format in order to be transmitted to the head office.

### VI.1.2 BRANCH MODULES TO CORE BANKING SYSTEM

The different exchanges described in this part deals with:

- Loading data files from **Barberousse Capture**.
- Loading incoming remittances
- loading rejections from **Barberousse-GIP**



#### VI.1.2.1 Loading data files from Barberousse capture

All data entered in the scanning modules can be generated in predefined format files (.DATA) in order to be loaded in the CBS.

This generation/loading allows the CBS to avoid double data entry.

DATA files can be generated at user request or automatically at each remittance validation.

- The data file structure is detailed in the annexe (Cf. Annex Data file structure (.Data)).

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 103/141</b>			

### VI.1.2.2 Loading of incoming remittances

As they are received, incoming remittances (RCP files) are deposited in the IN Mailbox of the Branch.

Thus, The CBS can load incoming remittances and proceed to their accounting.

In case of reception of cancellations from the Clearing House (or Intra Bank cancellations), the core banking system have to process them by inverting all accountings already done on the initial received transactions.

Cancelled transactions cannot be rejected by the recipient branch.

The branch core banking system can also load the End of day report files received at the branch IN Mailbox. (See structure in annexes: Branch report file structure).

### VI.1.2.3 Loading rejections from Barberousse-GIP

The **Barberousse-GIP** module provide rejection files (.ENV) containing all inter-banking and intra-banking rejections processed in the branch (cheques and bill of exchange).

The CBS can load these rejection files (ENV) and proceed to their accounting.

The rejection files (ENV) formats are detailed in the annexe (Cf.Presentations, rejection and cancellation data file structure)

## VI.2 EXCHANGES BETWEEN THE HEAD OFFICE MODULES AND CORE BANKING SYSTEM

These exchanges will ensure:

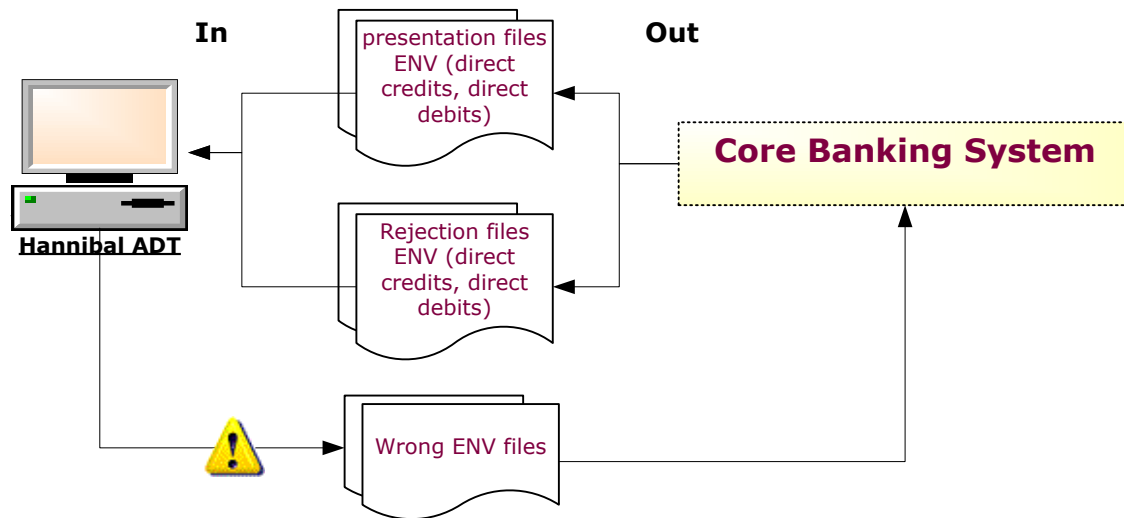
- Submitting of remittances for clearing
- Receive incoming remittances from the clearing house

It must be noted that all these exchanges are optional and does not affect the clearing process if not considered. These exchanges aim to make useful information available in both sides (modules side and CBS side).

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 104/141</b>			



## VI.2.1 CORE BANKING SYSTEM TO HEAD OFFICE MODULES



### VI.2.1.1 Generating presentation and rejection files (ENV)

(.ENV) files generated by the core banking system are controlled by **Hannibal ADT** before being accepted for processing. After these controls (syntactic, logical, regulatory and reconciliation), only correct files will be presented for clearing. Wrong files are rejected.

The Head office Core Banking System must then correct errors and submit them again to **Hannibal-ADT**.

It is important to note that these errors are generally frequent when establishing the system, but they are fewer and disappear once the mechanism and exchange rules are mastered.

#### Cancellation case:

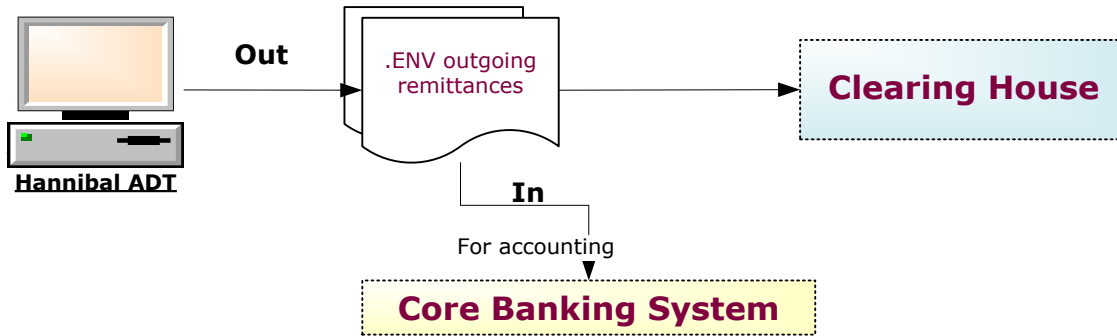
When a cancellation (presentation cancellation or rejection cancellation) is sent by the CBS to **Hannibal-ADT**, the CBS is supposed to have already made the necessary accounting adjustments related to the cancelled transactions.

When a cancellation, sent by the CBS, is not accepted by **Hannibal-ADT**, the CBS must readjust its accounting according to the cancellation rejection.

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 105/141</b>			

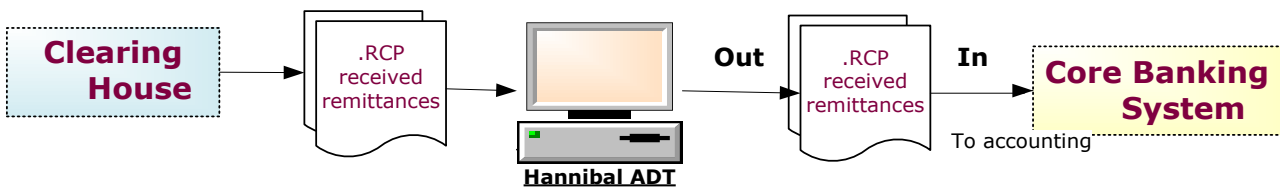
## VI.2.2 HEAD OFFICE MODULES TO CORE BANKING SYSTEM

### VI.2.2.1 Loading Sent presentation and rejection files (.ENV) for Clearing



A copy of outgoing remittances (.ENV) can be provided by Hannibal-ADT to the CBS for loading and accounting.

### VI.2.2.2 Loading received presentation and rejection RCP files from Clearing



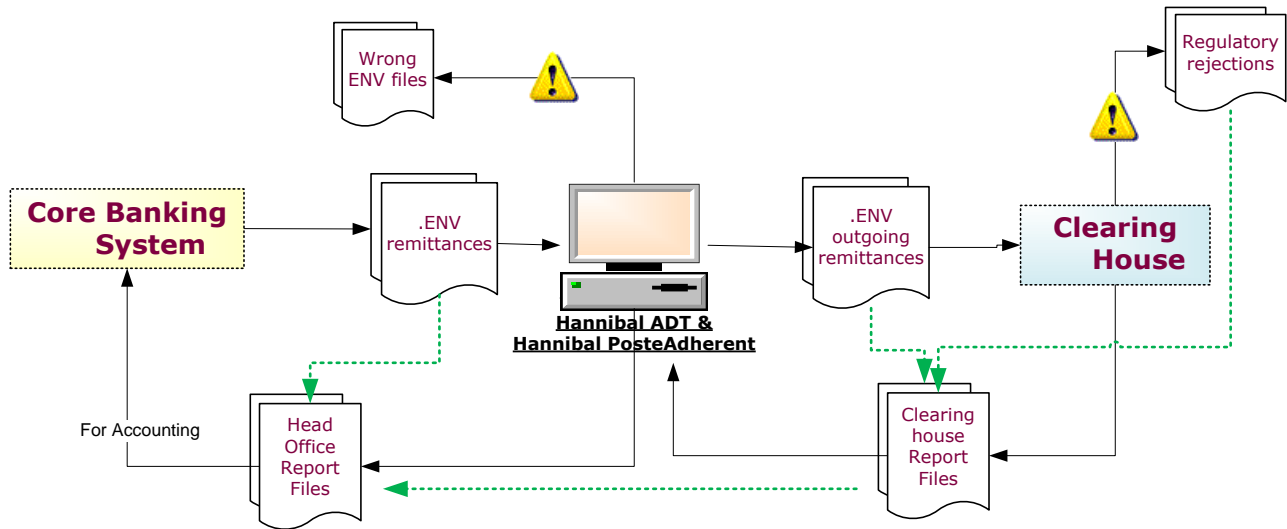
A copy of incoming remittances (RCP files receive from the clearing house) can be provided by Hannibal ADT to the CBS for loading and accounting. These files have the same structure as the .ENV files (Cf. Presentation, rejection and cancellation remittances structure (ENV/RCP)).

#### **Cancellation case:**

When a cancellation incoming remittance is received by the CBS through **Hannibal-ADT**, The CBS is required to proceed to the necessary accounting readjustment related to the cancelled transactions.

### VI.2.2.3 Loading Transaction reports

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 106/141</b>			



A difference may be noted between the CBS generated remittances for clearing and final processed transactions by the clearing House.

These differences may be caused by the following reasons:

1. A generated remittance by the CBS but not submitted in the **Hannibal ADT (or Poste adherent)**.

In this case, the remittance is not acknowledged by the clearing house. This information may be known from the end of day report sent by the clearing house.

2. A submitted remittance to **Hannibal ADT (or Poste adherent)** and collected by the clearing house can be partially accepted if some transactions are rejected for regulatory reasons.

In this case, Regulatory rejection files containing the rejected transactions are generated by the clearing house and sent to the remitting bank.

At the end of the Clearing day, End of day reports containing information about accepted and rejected transaction are generated by the clearing house and sent to participants.

These End of day reports are loaded by Hannibal ADT of each bank and the latter acknowledge all the processed outgoing remittances according to the end of day report.

The transaction reports are generated by Hannibal ADT as soon as it loads the End of day reports received from clearing.

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 107/141</b>			



The transaction reports contains all the information and the fate of all transactions send for clearing by the CBS (rejected by the clearing, accepted for clearing).

The Transactions reports have to be loaded by the CBS after generation by **Hannibal ADT**.

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 108/141</b>			

## VII. PROJECT TEAM ASSIGNMENT

Assignment of a dedicating a project team is very important for the success of the project implementation in each participating institution.

This project team will be in charge of coordinating between the different stakeholders and monitoring the implementation of the project at the participating institution level.

This project teams will also represent the participating institution to which it belongs, in the different committees and meetings related to the project.

## VIII. TRAININGS

### VIII.1 TRAINING PROVIDED BY BFI

Several training rounds for participants will be provided by BFI trainers in WAMI. These trainings will cover the following profiles:

- Users,
- Administrators,
- Technicals.

For each session the participant will appoint a small team of two people: the goal is to create a team who master the new software modules. This team will be in charge of training other employees of the institution involved in the clearing system.

We recommend that for the 'User' and 'Administrator' sessions the participant appoints the same people to ensure continuity and consistency between the use and administration of the system.

The detailed planning of the training will be provided by the Central Bank to each participant.

#### VIII.1.1 USERS TRAINING

Users' training enables assuring the preparation of the agents to the new functions that are related to the bank activity evolution and the use of the new clearing system. It will be processed as follow:

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 109/141</b>			

Object	Participants profiles	Place	Trainers
Presentation and uses of the branch platform modules, the ACP platform, and the participant platform	Users	Implementation country	BFI Trainers

### VIII.1.2 ADMINISTRATORS TRAINING

Training of system administrators is essential as it covers the setup and operation functional training of all modules as well as supervision of the system:

Object	Participants profiles	Place	Trainers
Module presentation and customization. Modules diagnosis and monitoring. Recovery management.	Administrators	Implementation country	BFI trainers

### VIII.1.3 TECHNICAL TRAINING

Technical training of each participant will allow a technical ownership of the BFI clearing solution by the presentation of the modules technical architecture:

Object	Participants profiles	Place	Trainers
Technical modules presentation	Technicians / Engineers	Implementation country	BFI trainers

### VIII.1.4 INSTALLER TRAINING

The installer training for each participant will allow self installers in terms of installation and reinstallation of the solution applications:

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 110/141</b>			

Object	Peoples profiles	Place	Trainers
Modules installation	Technicians / Engineers	Implementation country	BFI trainers

## VIII.2 TRAINING PROVIDED BY PARTICIPANTS

The training provided by BFI will be performed in a 'training of trainers' form. As a result, it will be necessary for each participant to conduct internally training sessions.

Basic Knowledge of Windows 2008 (head office modules user): if users of the system are not familiar to such an environment, it is necessary to provide training sessions with this environment.

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 111/141</b>			

## IX. ANNEXES

### IX.1 NAME STRUCTURE OF DATA FILE (.DATA)

#### IX.1.1 INDIVIDUAL DATA FILE NAME (.DATA)

Field	Instrument Code	Remittance Number	Presenting Participant Code	Presenting branch code	Currency code	Generation date DDMMYYYY	Generation Time HHMMSS	Extension
Length	02	07	03	03	03	08	06	.Data

Example: 30000000300100227009062010114530.Data: is an individual data file of the remittance 0000003 of cheques of the 09 June 2010 for the branch 002 and the bank 001.

#### IX.1.2 ACCUMULATED DATA FILE NAME (.DATA)

Field	Instrument Code	'ACCU' Prefix	Presenting Participant Code	Presenting branch code	Currency code	Generation date DDMMYYYY	Generation Time HHMMSS	Extension
Length	02	04	03	03	03	08	06	.Data

Example: 30ACCU00100227009062010114530.Data: is an accumulated data file of cheques of the 09 June 2010 for the branch 002 and the bank 001.

#### IX.1.3 GLOBAL DATA FILE NAME (.DATA)

Field	Instrument Code	'GLOB' prefix	Presenting Participant Code	Presenting branch code	Currency code	Generation date DDMMYYYY	Generation Time HHMMSS	Extension
Length	02	04	03	03	03	08	06	.Data

Example: 30GLOB00100227009062010114530.Data: is a GLOBAL data file of cheques of the 09 June 2010 for the branch 002 and the bank 001.

### IX.2 NAME STRUCTURE OF (.ENV/ RCP) FILES

The file name structure .ENV/RCP is applied to all sent remittances (or received) by participants to (or coming from) the automated clearing house such as:

Field	Clearing Code	Country Code	Presenting Participant Code	Generation date	Generation time	Instrument Code	Transaction Code	Currency code	Ext
Length	02	02	03	08	06	02	02	03	.ENV .RCP

Example: 01-GM-001-11022010-101352-30-21-270.ENV

It's a presentation remittance of issued cheques by the bank 001.

#### Note:

- Fields defining file names are separated by dashes.
- If .ENV files are generated at the branch level, the name of the ENV file should contain the presenting branch code, after the presenting bank code.

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	11/06/2010
Page 112/141			



## IX.3 CAT & PAK IMAGE FILE NAME STRUCTURE

Field	Clearing Code	Country Code	Participant code	Generation Date	Generation time	Instrument Code	Transaction Code	Currency code	Ext
Length	02	02	03	08	06	02	02	03	.CAT .PAK

Example: 01-SL-002-13122004-111000-30-21-694.CAT

It's an inter-banking catalogue file related to the cheque Instrument generated by the participant 00001.

01-SL-002-13122004-111000-30-21-694.PAK

It's an inter-banking package file related to the cheque Instrument generated by the participant 00002.

### Note:

- Fields defining file names are separated by dashes.
- If Global (.CAT/PAK) files are generated at the branch level, the name of the files should contain the presenting branch code, after the presenting bank code.

## IX.4 NAMES STRUCTURE OF OTHER FILES ISSUED BY THE ACH

### IX.4.1 NAME STRUCTURE OF REGULATORY REJECTION FILES (.RJT)

Field	Clearing Code	Country Code	Receiving participant code	Session date	Generation time	Instrument Code	Transaction Code	Currency code	Ext
Length	02	02	03	08	06	02	02	03	.RJT

Example: 01-GN-003-11022010-171648-23-21-324.RJT

It's a regulatory rejection of a represented direct debit remittance received by the bank 003.

### Note:

- Fields defining file names are separated by dashes.
- If .RJT files are generated at the branch level, the name of the ENV file should contain the presenting branch code, after the presenting bank code.

### IX.4.2 NAME STRUCTURE OF DETAILED NET BALANCES

Field	Clearing Code	Country Code	Receiving participant code	Session date	Generation time	Instrument Code	Currency code	Extension
Length	02	02	03	08	06	02	03	.SNI .SND .SIV .SNF .SFV .SDV

Examples:

01-GM-001-11022010-181347-40-270.SNI: it's the bill of exchange intermediate Net Balance of the participant 001.

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	11/06/2010
Page 113/141			

01-SL-002-11022010-181347-40-694.SIV: It's the global intermediate Net Balance of the bill of exchange Instrument of the participant 002.  
 01-GN-003-11022010-190000-50-324.SNF: It's the end of session Net Balance of the card transaction Instrument of the participant 003.  
 01-GM-004-11022010-190000-50-270.SFV: It's a global end of session Net Balance for the card transaction Instrument of the participant 004.  
 01-SL-005-12022010-130101-43-694.SND: It's the final Net Balance of the represented bill of exchange Instrument of the participant 005.  
 01-GN-006-12022010-130101-40-324.SDV: It's the final global Net Balance of the bill of exchange Instrument of the participant 006.

**Note:**

- Fields defining file names are separated by dashes.

**IX.4.3 GLOBAL NET BALANCE FILE NAME STRUCTURE**

Field	Clearing Code	Country Code	Receiving participant code	Session date	Generation time	Currency code	Extension
Length	02	02	03	08	06	03	.SIG .SFG .SNG

Examples

01-GM-003-11022010-181387-270.SIG: it's the intermediate global Net Balance of the participant 003.  
 01-SL-002-11022010-180010-694.SFG: it's the global end of session Net Balance of the participant 002.  
 01-GN-001-12022010-110002-324.SNG: it's the global Net Balance of the participant 001.

**Note:**

- Fields defining file names are separated by dashes.

**IX.4.4 STRUCTURE OF THE SETTLEMENT SCHEDULE FILE NAME (.ECH)**

Field	Clearing Code	Country Code	Receiving participant code	Session date	Generation time	Instrument Code	Currency code	Extension
Length	02	02	03	08	06	02	03	.ECH

Example: 01-GM-001-12022010-100001-33-270.ECH

It's the settlement schedule of the represented cheque Instrument of the participant 001.

**Note:**

- Fields defining file names are separated by dashes.

**IX.4.5 STRUCTURE OF THE REPORT FILE NAME (CRS/CPR)**

Nom	du	Clearing Code	Country	Receiving	Session	Generation	Currency	Extension
Project	ACP / ACH system				Sub Project	Participant Guide		
Status	Draft To be validated • Validated				Date of update	11/06/2010		
Page 114/141								

Field		Code	participant code	date	time	code	
Length	02	02	03	08	06	03	. CRS .CPR

Example: 01-SL-001-11022010-106081-694.CRS

It's an end of session report generated by the ACH for the participant 001.

01-GN-001-11022010-120001-324.CPR

It's an end of day report generated by the ACH for the participant 001.

**Note:**

- Fields defining file names are separated by dashes.

### IX.4.6 STRUCTURE OF THE TRANSACTIONS REPORT FILE NAME (CRO)

The .CRO file contains all sent operations by the participants to the clearing house such as:

Field	Clearing Code	Country Code	Presenting Participant Code	Generation date	Generation time	Instrument Code	Currency code	Ext
Length	02	02	03	08	06	02	03	.CRO

Example: 01-GM-001-11022010-150000-30-270.CRO

It's the transaction report of issued cheques by the bank 001.

**Note:**

- Fields defining file names are separated by dashes.
- If .CRO files are generated at the branch level, the name of the ENV file should contain the presenting branch code, after the presenting bank code.

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 115/141</b>			

## IX.5 PRESENTATIONS, REJECTION AND CANCELLATION DATA FILE STRUCTURE

- The Participant code field in the global records is the Presenting code for .ENV remittance and the Receiving code for .RCP remittance;
- The existent date format on all structure is DDMMYYYY ;
- All Numeric fields must be right justified in the structures.

### IX.5.1 DATA FILE STRUCTURE (.DATA)

#### IX.5.1.1 Cheque .DATA files

##### IX.5.1.1.1 Global record

Field name	Type	Length	Description
<b>Instrument code</b>	Number	02	30 : Presented cheque 33 : Represented cheque
Transaction Code	Number	01	Must be equal to 1 (correspondent to a global record)
Currency Code	Number	03	Currency code of the remittance
Remittance number	Alpha-Numeric	07	Indicate the Remittance number
Beneficiary BBAN	Number	18	Beneficiary BBAN (bank code, branch code, account number and account check digit)
Beneficiary name	Alpha-Numeric	30	Indicate the Name of the beneficiary
Beneficiary Address	Alpha-Numeric	30	Indicate the Address of the beneficiary
Number of cheques	Number	10	Number of cheques in the remittance
Global amount	Number	15	Remittance global amount
Reconciliation status code	Number	02	The reconciliation status code
Complementary information	Alpha-Numeric	30	Information concerning the remittance
Remitting Date	Numeric	08	Customer's remittance date
Username	Alpha-Numeric	20	Username
Filler	Alpha-Numeric	24	In used zone

**Length: 200**

##### IX.5.1.1.2 Detail record

Field name	Type	Length	Description
Instrument code	Number	02	30 : Presented cheque 33 : Represented cheque
Transaction Code	Number	01	Must be equal to 2 (correspondent to a detail record)

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 116/141</b>			

Remittance number	Alpha-Numeric	07	Indicates remittance number
MICR track	Number	37	Cheque MICR Codeline
Issue date	Number	08	Issuing date of the cheque on DDMMYY the format
Cheque amount	Number	15	The cheque amount
Reconciliation status code	Number	02	The reconciliation status code
Remitting Date	Number	08	Remittance cheque date by the customer
Remitting branch code	Number	03	Remitting branch code
Payer Name	Alpha-Numeric	30	Drawer Name
Payer Address	Alpha-Numeric	30	Payer Address
Username	Alpha-Numeric	20	Username
Filler	Alpha-Numeric	37	Free zone

**Length200**

### IX.5.1.2 Bill of exchange .DATA file

#### IX.5.1.2.1 Global record

Field name	Type	Length	Description
<b>Instrument code</b>	Number	02	40 : Presented bill of exchange 43 : Represented bill of exchange
Transaction Code	Number	01	Must be equal to 1 (correspondent to a global record)
Currency Code	Number	03	Currency code of the remittance
Remittance Number	Alpha-Numeric	07	Indicate the Remittance number
Beneficiary BBAN	Number	18	Beneficiary BBAN (bank code, branch code, account number and account check digit)
Beneficiary Name	Alpha-Numeric	30	Beneficiary Name
Beneficiary address	Alpha-Numeric	30	Beneficiary Address
Number of bills of exchange	Number	10	Number of BOE in the remittance
Global amount	Number	15	Remittance global amount
Reconciliation status code	Number	02	The reconciliation status code
Complementary information	Alpha-Numeric	30	Remittance information
Remitting Date	Number	08	Remittance BOE date by the customer DDMMYYYY
Username	Alpha-Numeric	20	Username
Filler	Alpha-Numeric	44	Free zone

**Length: 220**

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 117/141</b>			

### IX.5.1.2.2 Detail record

Field name		Length	Description
Instrument code	Number	02	40 : Presented bill of exchange 43 : Represented bill of exchange
Transaction Code	Number	01	Must be equal to 2 (correspondent to a detail record)
Currency Code	Number	03	Currency code of the remittance
Remittance number	Alpha-Numeric	07	Indicate the Remittance number
BOE number	Number	12	N° of the bill of exchange
Payer BBAN	Number	18	Payer BBAN (bank code, branch code, account number and account check digit)
Beneficiary BBAN	Number	18	Beneficiary BBAN (bank code, branch code, account number and account check digit)
BOE nature	Number	01	1:personal / 2: Corporate / 3: Bank
BOE amount	Number	15	Bill of exchange amount
Maturity date	Number	08	DDMMYYYY
Issue date	Number	08	DDMMYYYY
Creation Place	Alpha-Numeric	30	
Acceptance code	Number	01	0 : Accepted Bill of exchange 1 : not accepted bill of exchange
Endorsement and approval code	Number	01	0 : Either endorser nor Approver 1 : Endorser 2 : Approver 3 : Either Endorser and Approver
Reconciliation status code	Number	02	Code of reconciliation status
Remittance date	Number	08	Remittance date by the customer (DDMMYYYY)
Remitting branch code	Number	03	Remitting branch code
Payer name	Alpha-Numeric	30	Payer name
Payer address	Alpha-Numeric	30	Payer address
Username	Alpha-Numeric	20	Username
Filler	Alpha-Numeric	02	Free Zone

**Length: 220**

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 118/141</b>			

## IX.5.2 DIRECT CREDITS/ REPRESENTED DIRECT CREDITS ENV/RCP FILES

### IX.5.2.1 Global record

N°	Type	Length	Name	Description	Manda
1.	N	01	Direction	1 : Remittent participant outgoing 2 : ACH Returns to the Receiving participant	Y
2.	N	02	Clearing Code	00: Intra-banking. 01: National Inter-banking. 02: Regional Inter-banking.	Y
3.	αN	02	Remittent country code	GM = Gambia. SL = Sierra Leone GN = Guinea	Y
4.	N	08	Generation date	Generation date DDMMYYYY	Y
5.	N	06	Generation time	Generation time HHMMSS	Y
6.	N	02	Instrument Code	10 / 13	Y
7.	N	03	Participant code	Complete with 0 to the left	Y
8.	N	08	Presentation date	Presentation date for clearing DDMMYYYY	Y
9.	N	08	Applied presentation date	Applied presentation date by the ACH DDMMYYYY	Y
10.	αN	07	Remittance number	Complete with 0 to the left	Y
11.	N	02	Transaction Code	11 / 12 / 13 / 14	Y
12.	αN	03	Currency code	270 (GM) / 694 (SL) / 324 (GN)	Y
13.	N	02	Rank	00	Y
14.	N	15	Total amount of direct credits	Complete with 0 to the left	Y
15.	N	10	Total number of direct credits	Complete with 0 to the left	Y
16.	αN	301	Free zone	Complete with blanks to the right	N

Length: 380 characters

**Y = Mandatory / N = Optional**

### IX.5.2.2 Detail record

N°	Type	Length	Name	Description	Manda
1.	N	01	Direction	1 / 2 (Outgoing / Incoming)	Y
2.	N	02	Clearing Code	00: Intra-banking. 01: National Inter-banking. 02: Regional Inter-banking.	Y
3.	αN	02	Remittent country code	GM = Gambia. SL = Sierra Leone GN = Guinea	Y
4.	N	08	Generation date	Generation date DDMMYYYY	Y
5.	N	06	Generation time	Generation time HHMMSS	Y
6.	N	02	Instrument Code	10 / 13	Y
7.	N	03	Presenting Participant Code	Complete with 0 to the left	Y
8.	N	08	Presentation date	Presentation date for clearing DDMMYYYY	Y

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	11/06/2010
Page 119/141			

9.	N	8	Applied presentation date	Applied presentation date by the ACH DDMMYYYY	Y
10.	αN	07	Remittance number	Remittance nbr internal to the bank Complete with 0 to the left	Y
11.	N	02	Transaction Code	21 / 22 / 23 / 24	Y
12.	αN	03	Currency code	270 (GM) /694 (SL) / 324 (GN)	Y
13.	N	02	Rank	00 (Detail record)	Y
14.	N	01	Transfer Nature	0: personal direct credit. 1: Corporate direct credit. 2: Bank direct credit. 3 : Postal order	Y
15.	N	15	Transfer amount	Complete with 0 to the left	Y
16.	αN	07	Transfer number	(attributed by the remittent participant) Complete with 0 to the left	Y
17.	N	03	Remitting branch code	Complete with 0 to the left	Y
18.	N	08	remitting date	Remitting Date of the operation by the customer to his bank DDMMYYYY	Y
19.	N	18	Payer BBAN	(bank code, branch code, account number and account check digit)	Y
20.	αN	30	Payer name or corporate name	Complete with blanks to the right	N
21.	αN	30	Payer address	Complete with blanks to the right	N
22.	N	03	Receiving participant code	Complete with 0 to the left	Y
23.		02	Recipient country code	GM = Gambia. SL = Sierra Leone GN = Guinea	Y
24.	N	18	Beneficiary account	(bank code, branch code, account number and account check digit)	Y
25.	αN	30	Beneficiary Name or corporate name	Complete with blanks to the right	N
26.	αN	30	Beneficiary address	Complete with blanks to the right	N
27.	αN	20	Number or reference of the payment file	Complete with blanks to the right	N
28.	N	02	Number of complementary records	00	Y
29.	αN	45	transaction reason	Complete with blanks to the right	N
30.	αN	15	Representation reason	only for representation Complete with blanks to the right	N
31.	N	08	Settlement date	Applied presentation date + Settlement date of the Instrument (DDMMYYYY)	Y
32.	N	08	Rejection reason	Code du rejection reason (4 Reasons) Complete with 0 to the left	Y
33.	αN	33	Free zone	- Complete with blanks to the right	N

Length: 380 characters

Y = Mandatory / N = Optional

### IX.5.2.3 Complementary information

N°	Type	Length	Name	Description	Manda
1.	N	01	Direction	1 / 2 (Outgoing / Incoming)	Y

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	11/06/2010
Page 120/141			



2.	N	02	Clearing Code	00: Intra-banking. 01: National Inter-banking. 02: Regional Inter-banking.	Y
3.	αN	02	Remittent country code	GM = Gambia. SL = Sierra Leone GN = Guinea	Y
4.	N	08	Generation date	Generation date	Y
5.	N	06	Generation time	Generation time	Y
6.	N	02	Instrument Code	10 / 13	Y
7.	N	03	Presenting Participant Code	Bank code (with 00 to the left)	Y
8.	N	08	Presentation date	Presentation date for clearing DDMMYYYY	Y
9.	N	08	Applied presentation date	Applied presentation date by the ACH DDMMYYYY	Y
10.	αN	07	Remittance number	-	Y
11.	N	02	Transaction Code		Y
12.	αN	03	Currency code	270 (GM) / 694 (SL) / 324 (GN)	Y
13.	N	02	Rank	01 to 20 complementary records	Y
14.	N	01	Transfer nature	0: personal direct credit. 1: Corporate direct credit. 2: Bank direct credit. 3 : Postal order	Y
15.	N	15	Transfer amount	Complete with 0 to the left	Y
16.	αN	07	Transfer number	(granted by the remittent participant)	Y
17.	αN	110	Message		N
18.	N	1	Identifier type	1 : National id card 2 : Passport	Y
19.	αN	15	identifier number		Y
20.	αN	30	Beneficiary address		N
21.	αN	147	Free zone	-	N

Length: 380 characters

Y = Mandatory / N = Optional

### IX.5.3 FOREIGN DIRECT CREDIT ENV/RCP FILES

#### IX.5.3.1 Global record

N°	Type	Length	Name	Description	Mandatory
1.	N	01	Direction	1 / 2 (Outgoing / Incoming)	Y
2.	N	02	Clearing Code	00: Intra-banking. 01: National Inter-banking. 02: Regional Inter-banking.	Y
3.	αN	02	Remitting country code of the transfer	GM = Gambia. SL = Sierra Leone GN = Guinea	Y
4.	N	08	Generation date	Generation date DDMMYYYY	Y
5.	N	06	Generation time	Generation time HHMMSS	Y
6.	N	02	Instrument Code	12	Y
7.	N	03	Presenting Participant Code	Complete with 0 to the left	Y
8.	N	08	Presentation date	Presentation date for clearing DDMMYYYY	Y

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	11/06/2010
Page 121/141			

9.	N	08	Applied presentation date	Applied presentation date by the ACH DDMMYYYY	Y
10.	αN	07	Remittance number	Complete with 0 to the left	Y
11.	N	02	Transaction Code	11 / 12 / 13 / 14	Y
12.	αN	03	Currency code	270 (GM) /694 (SL) / 324 (GN)	Y
13.	N	02	Rank	00 (constant)	Y
14.	N	15	Total amount of transfers	Complete with 0 to the left	Y
15.	N	10	Total number of transfers	Complete with 0 to the left	Y
16.	αN	351	Free zone	Complete with blanks to the right	N

Length: 430 characters

Y = Mandatory / N = Optional

### IX.5.3.2 Detail record

N°	Type	Length	Name	Description	Manda
1.	N	01	Direction	1 / 2 (Outgoing / Incoming)	Y
2.	N	02	Clearing Code	00: Intra-banking. 01: National Inter-banking. 02: Regional Inter-banking.	Y
3.	αN	02	Remittent country code	GM = Gambia. SL = Sierra Leone GN = Guinea	Y
4.	N	08	Generation date	DDMMYYYY	Y
5.	N	06	Generation time	Generation time HHMMSS	Y
6.	N	02	Instrument Code	12	Y
7.	N	03	Presenting Participant Code	Complete with 0 to the left	Y
8.	N	08	Presentation date	Presentation date for clearing DDMMYYYY	Y
9.	N	08	Applied presentation date	Applied presentation date by the ACH DDMMYYYY	Y
10.	αN	07	Remittance number	Remittance number internal to the bank Complete with 0 to the left	Y
11.	N	02	Transaction Code	21 / 22 / 23 / 24	Y
12.	αN	03	Currency code	270 (GM) /694 (SL) / 324 (GN)	Y
13.	N	02	Rank	00 (Detail record)	Y
14.	N	15	Transfer amount	Complete with 0 to the left	Y
15.	αN	07	Transfer number	(attributed by the remittent participant) Complete with 0 to the left	Y
16.	αN	03	Initial currency code	Currency code of the initial operation	Y
17.	N	15	Initial amount	Transaction amount in the initial currency. Complete with 0 to the left	Y
18.	N	03	Remitting branch code	Complete with 0 to the left	Y
19.	N	08	Reception date	Reception date of the foreign transfer DDMMYYYY	Y
20.	N	18	Payer Account number	(bank code, branch code, account number and account check digit)	Y

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	<b>11/06/2010</b>
Page 122/141			

21.	αN	30	Payer name or corporate name	Complete with blanks to the right	N
22.	αN	30	Payer address	Optional	N
23.	N	03	Receiving participant code	Complete with 0 to the left	Y
24.		02	Recipient country code	GM = Gambia. SL = Sierra Leone GN = Guinea	Y
25.	N	18	Beneficiary account number	(bank code, branch code, account number and account check digit)	Y
26.	αN	30	Beneficiary Name or corporate name	Complete with blanks to the right	N
27.	αN	30	Beneficiary address	Optional	N
28.	αN	20	Number or reference of the payment file	Complete with blanks to the right	N
29.	N	02	Number of complementary records	00	Y
30.	αN	45	transaction reason (Name)	Complete with blanks to the right	N
31.	αN	30	Foreign bank reference	Reference of the foreign bank, remittent of the transfer. Complete with blanks to the right	Y
32.	N	15	Payer bank fees	Received Fees by the remittent bank. Complete with 0 to the left	N
33.	N	15	Foreign bank fees	Received fees by the foreign bank. Complete with 0 to the left	N
34.	N	08	Settlement date	Applied presentation date + Settlement period of the Instrument DDMMYYYY	Y
35.	N	08	Rejection reason	Rejection reason code(4 Reasons) Complete with 0 to the left	Y
36.	αN	23	Free zone	Complete with blanks to the right	N

Length: 430 characters

Y = Mandatory / N = Optional

## IX.5.4 DIRECT DEBITS ENV/RCP FILES

### IX.5.4.1 Global record

N°	Type	Length	Name	Description	Manda
1.	N	01	Direction	1 / 2 (Outgoing / Incoming)	Y
2.	N	02	Clearing Code	00: Intra-banking. 01: National Inter-banking. 02: Regional Inter-banking.	Y
3.	αN	02	Remittent country code	GM = Gambia. SL = Sierra Leone GN = Guinea	Y
4.	N	08	Generation date	Generation date (DDMMYYYY)	Y
5.	N	06	Generation time	Generation time HHMMSS	Y
6.	N	02	Instrument Code	20 / 23 /	Y

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	11/06/2010
Page 123/141			

7.	N	03	Participant code	Complete with 0 to the left	Y
8.	N	08	Presentation date	Presentation date for clearing DDMMYYYY	Y
9.	N	08	Applied presentation date	Applied presentation date by the ACH DDMMYYYY	Y
10.	αN	07	Remittance number	Complete with 0 to the left	Y
11.	N	02	Transaction Code	11 / 12 / 13 / 14	Y
12.	αN	03	Currency code	270 (GM) /694 (SL) / 324 (GN)	Y
13.	N	15	Total amount of direct Debits	Complete with 0 to the left	Y
14.	N	10	Total number of direct Debits	Complete with 0 to the left	Y
15.	αN	313	Free zone	Complete with blanks to the right	N

Length: 390 characters

Y = Mandatory / N = Optional

#### IX.5.4.2 Detail record

N°	Type	Length	Name	Description	Manda
1.	N	01	Direction	1 / 2 (Outgoing / Incoming)	Y
2.	N	02	Clearing Code	00: Intra-banking. 01: National Inter-banking. 02: Regional Inter-banking.	Y
3.	αN	02	Country Code	GM = Gambia. SL = Sierra Leone GN = Guinea	Y
4.	N	08	Generation date	Generation date (DDMMYYYY)	Y
5.	N	06	Generation time	Generation time HHMMSS	Y
6.	N	02	Instrument Code	20 / 23 /	Y
7.	N	03	Presenting Participant Code	Complete with 0 to the left	Y
8.	N	08	Presentation date	Presentation date for clearing (DDMMYYYY)	Y
9.	N	08	Applied presentation date	Applied presentation date by the ACH (DDMMYYYY)	Y
10.	αN	07	Remittance number	Complete with 0 to the left	Y
11.	N	02	Detail Transaction Code	21 / 22 / 23 / 24	Y
12.	αN	03	Currency code	270 (GM) /694 (SL) / 324 (GN)	Y
13.	N	15	Direct debit amount	Complete with 0 to the left	Y
14.	αN	07	Direct debit number	Complete with 0 to the left	Y
15.	N	03	Remitting branch code	Complete with 0 to the left	Y
16.	N	08	Remitting Date	Remitting Date of the operation by the customer to his bank (DDMMYYYY)	Y

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	<b>11/06/2010</b>
Page 124/141			

17.	N	18	Payer Account BBAN	(bank code, branch code, account number and account check digit)	Y
18.	αN	30	Name of the payer	Complete with blanks to the right	N
19.	αN	30	Debtor customer address	Complete with blanks to the right	N
20.	N	03	Receiving participant code	Complete with 0 to the left	Y
21.	N	02	Receiving participant country code	GM = Gambia. SL = Sierra Leone GN = Guinea	Y
22.	N	18	Beneficiary account BBAN	(bank code, branch code, account number and account check digit)	Y
23.	αN	30	Name of Beneficiary	Complete with blanks to the right	N
24.	αN	30	Beneficiary address	Complete with blanks to the right	N
25.	N	10	Beneficiary Number / Reference	National Number/reference of the direct Debit Beneficiary. Complete with 0 to the left	Y
26.	αN	20	<b>Authorization number</b>	<b>Complete with blanks to the right</b>	<b>Y</b>
27.	αN	45	Label	Name / Reason du direct Debit. Complete with blanks to the right	N
28.	αN	15	Representation reason	only for representation. Complete with blanks to the right.	N
29.	N	08	Settlement date	Applied presentation date + Settlement period of the direct Debit (DDMMYYYY)	Y
30.	N	08	Rejection reason	Code du rejection reason (4 Reasons). Complete with 0 to the left	Y
31.	N	08	Maturity date	DDMMYYYY	Y
32.	N	08	Invoice date	DDMMYYYY	N
33.	αN	22	Free zone	Complete with blanks to the right.	N

Length: 390 characters

**Y = Mandatory / N = Optional**

**Note:**

The payer should authorize the beneficiary institution to send him direct debit transactions for payment.

This authorization should be transmitted by the bank of the beneficiary institution to the bank of the payer.

The authorization form should contain the following information:

- The beneficiary institution reference/Number: reference/number which identifies the beneficiary institution which will present the direct debit transaction for clearing. This reference/number must be declared in the fixed data of the Clearing House.
- The beneficiary institution BBAN.
- The name or corporate name of the beneficiary institution
- The Payer name
- The Payer address
- The Payer BBAN

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 125/141</b>			

- Object of the direct debit
- The maturity date
- The authorization number/reference
- The direct debit amount ( or maximum amount)
- The authorization validity period

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 126/141</b>			

## IX.5.5 CHEQUES

### IX.5.5.1 Global record

N°	Type	Length	Name	Description	Manda
1.	N	01	Direction	1 / 2 (Outgoing / Incoming)	Y
2.	N	02	Clearing Code	00: Intra-banking. 01: National Inter-banking. 02: Regional Inter-banking.	Y
3.	αN	02	Remittent country code	GM = Gambia. SL = Sierra Leone GN = Guinea	Y
4.	N	08	Generation date	Generation date DDMMYYYY	Y
5.	N	06	Generation time	Generation time HHMMSS	Y
6.	N	02	Instrument Code	30 / 33	Y
7.	N	03	Participant code	Complete with 0 to the left	Y
8.	N	08	Presentation date	Presentation date for clearing DDMMYYYY	Y
9.	N	08	Applied presentation date	Applied presentation date by the ACH DDMMYYYY	Y
10.	αN	07	Remittance number	Complete with 0 to the left	Y
11.	N	02	Transaction Code	11 / 12 / 13 / 14	Y
12.	αN	03	Currency code	270 (GM) / 694 (SL) / 324 (GN)	Y
13.	N	15	Total amount of cheques	Complete with 0 to the left	Y
14.	N	10	Total number of cheques	Complete with 0 to the left	Y
15.	αN	233	Free zone	Complete with blanks to the right	N

Length: 310 characters

Y = Mandatory / N = Optional

### IX.5.5.2 Detail record

N°	Type	Length	Name	Description	Manda
1.	N	01	Direction	1 / 2 (Outgoing / Incoming)	Y
2.	N	02	Clearing Code	00: Intra-banking. 01: National Inter-banking. 02: Regional Inter-banking.	Y
3.	αN	02	Country Code	GM = Gambia. SL = Sierra Leone GN = Guinea	Y
4.	N	08	Generation date	Generation date DDMMYYYY	Y
5.	N	06	Generation time	Generation time HHMMSS	Y
6.	N	02	Instrument Code	30 / 33	Y
7.	N	03	Presenting Participant Code	Complete with 0 to the left	Y

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	11/06/2010
Page 127/141			

8.	N	08	Presentation date	Presentation date for clearing DDMMYYYY	Y
9.	N	08	Applied presentation date	Applied presentation date by the ACH DDMMYYYY	Y
10.	αN	07	Remittance number	Remittance nbr internal to the bank. Complete with 0 to the left.	Y
11.	N	02	Detail Transaction Code	21 / 22 / 23 / 24	Y
12.	αN	03	Currency code	270 (GM) / 694 (SL) / 324 (GN)	Y
13.	N	1	Nature du cheque	0: Personal Cheque 1: Corporate Cheque 2: Bank Draft	Y
14.	N	15	Cheque amount	Complete with 0 to the left	Y
15.	N	08	Cheque number	Complete with 0 to the left	Y
16.	N	03	Remitting branch code	Complete with 0 to the left	Y
17.	N	08	Remitting Date	Remitting date of the operation by the customer to his bank DDMMYYYY	Y
18.	N	18	Drawer account	(bank code, branch code, account number and account check digit)	Y
19.	αN	30	Drawer name or corporate name	Complete with blanks to the right.	N
20.	αN	30	Drawer address	Complete with blanks to the right.	N
21.	N	03	Receiving participant code	Complete with 0 to the left	Y
22.	N	02	Receiving participant country code	GM = Gambia. SL = Sierra Leone GN = Guinea	Y
23.	N	18	Beneficiary account	(bank code, branch code, account number and account check digit)	Y
24.	αN	30	Beneficiary Name or corporate name	Complete with blanks to the right.	N
25.	αN	30	Beneficiary address	Complete with blanks to the right.	N
26.	N	08	Issue date of the cheque	DDMMYYYY	Y
27.	αN	15	Representation reason	Only for representation. Complete with blanks to the right.	N
28.	N	08	Settlement date	Applied presentation date + Settlement date of the Instrument. DDMMYYYY	Y
29.	N	08	Rejection reason	Rejection reason code (4 Reasons). Complete with 0 to the left	Y
30.	αN	23	Free zone	Complete with blanks to the right.	N

Length: 310 characters

**Y = Mandatory / N = Optional**

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 128/141</b>			



## IX.5.6 BILL OF EXCHANGE

### IX.5.6.1 Global record

N°	Type	Length	Name	Description	Manda
1.	N	01	Direction	1 / 2 (Outgoing / Incoming)	Y
2.	N	02	Clearing Code	00: Intra-banking. 01: National Inter-banking. 02: Regional Inter-banking.	Y
3.	αN	02	Remittent country code	GM = Gambia. SL = Sierra Leone. GN = Guinea.	Y
4.	N	08	Generation date	Generation date DDMMYYYY	Y
5.	N	06	Generation time	Generation time HHMMSS	Y
6.	N	02	Instrument Code	40 / 43	Y
7.	N	03	Participant code	Complete with 0 to the left	Y
8.	N	08	Presentation date	Presentation date for clearing DDMMYYYY	Y
9.	N	08	Applied presentation date	Applied presentation date by the ACH DDMMYYYY	Y
10.	αN	07	Remittance number	Complete with 0 to the left	Y
11.	N	02	Transaction Code global	11 / 12 / 13 / 14	Y
12.	αN	03	Currency code	270 (GM) / 694 (SL) / 324 (GN)	Y
13.	N	02	Rank	00 (constant)	Y
14.	N	15	Total amount of the bills of exchange	Complete with 0 to the left	Y
15.	N	10	Total number of bills of exchange	Complete with 0 to the left	Y
16.	αN	401	Free zone	Complete with blanks to the right	N

Length: 480 characters

Y = Mandatory / N = Optional

### IX.5.6.2 Detail record

N°	Type	Length	Name	Description	Manda
1.	N	01	Direction	1 / 2 (Outgoing / Incoming)	Y
2.	N	02	Clearing Code	00: Intra-banking. 01: National Inter-banking. 02: Regional Inter-banking.	Y
3.	αN	02	Country Code	GM = Gambia. SL = Sierra Leone. GN = Guinea.	Y
4.	N	08	Generation date	Generation date DDMMYYYY	Y
5.	N	06	Generation time	Generation time HHMMSS	Y
6.	N	02	Instrument Code	40 / 43	Y
7.	N	03	Presenting Participant Code	Complete with 0 to the left	Y

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	11/06/2010
Page 129/141			

8.	N	08	Presentation date	Presentation date for clearing DDMMYYYY	Y
9.	N	08	Applied presentation date	Applied presentation date by the ACH DDMMYYYY	Y
10.	αN	07	Remittance number	Complete with 0 to the left	Y
11.	N	02	Detail Transaction Code	21 / 22 / 23 / 24	Y
12.	αN	03	Currency code	270 (GM) /694 (SL) / 324 (GN)	Y
13.	N	02	Rank	00 (Detail record)	Y
14.	N	01	Nature Bill of exchange	0 : Personal Bill of exchange 1 : Corporate Bill of exchange 2 : Bank Bill of Exchange	Y
15.	N	15	Bill of exchange amount	Complete with 0 to the left	Y
16.	N	15	Interest amount	Complete with 0 to the left	N
17.	N	15	Protest fee amount	Complete with 0 to the left	N
18.	N	12	Bill of exchange number	Complete with 0 to the left	Y
19.	N	03	Remitting branch code	Complete with 0 to the left	Y
20.	N	08	Remitting Date	DDMMYYYY	Y
21.	N	18	Drawn account	(bank code, branch code, account number and account check digit)	Y
22.	N	18	Initial drawn BBAN	(bank code, branch code, account number and account check digit)	Y
23.	N	03	Receiving participant code	Complete with 0 to the left	Y
24.	N	02	Receiving participant country code	270 (GM) /694 (SL) / 324 (GN)	Y
25.	N	18	Beneficiary account	(bank code, branch code, account number and account check digit)	Y
26.	αN	30	Beneficiary name or corporate name	Complete with blanks to the right	N
27.	αN	30	Beneficiary address	Complete with blanks to the right	N
28.	αN	30	Drawn name	Complete with blanks to the right	N
29.	αN	30	Drawn Address	Complete with blanks to the right	N
30.	αN	30	Drawn business references	Complete with blanks to the right	N
31.	N	01	Acceptation Code	<b>Code acceptance *</b>	<b>Y</b>
32.	N	01	Approval and endorsement code	<b>Approval/endorsement code*</b>	<b>Y</b>
33.	N	08	Maturity date	DDMMYYYY	Y
34.	N	08	Initial maturity date	DDMMYYYY	Y
35.	N	08	Creation date of the Bill of exchange	DDMMYYYY	Y
36.	αN	30	Creation place	City or locality. Complete with blanks to the right	N
37.	αN	30	Drawer business references	Complete with blanks to the right	N
38.	αN	15	Representation reason	only for representation. Complete with blanks to the right	N
39.	N	08	Settlement date	DDMMYYYY	Y

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 130/141</b>			

40.	N	08	Rejection reason	Rejection reason code (4 Reasons). Complete with 0 to the left	Y
41.	αN	31	Free zone	Complete with blanks to the right	N

Length: 480 characters

**Y = Mandatory / N = Optional**

Acceptation code	Endorsement and approval Code
0 : Accepted BOE 1 : Non accepted BOE 2 : The drawer want to present the BOE for acceptance by the bank	0 : Not followed 1 : Followed by an endorsement 2 : Followed by an approval 3 : Followed by an approval and an endorsement

### IX.5.6.3 Complementary Information

N°	Type	Length	Name	Description	Manda
1.	N	01	Direction	1 / 2 (Outgoing / Incoming)	Y
2.	N	02	Clearing Code	00: Intra-banking. 01: National Inter-banking. 02: Regional Inter-banking.	Y
3.	αN	02	Country Code	GM = Gambia. SL = Sierra Leone. GN = Guinea.	Y
4.	N	08	Generation date	Generation date	Y
5.	N	06	Generation time	Generation time	Y
6.	N	02	Instrument Code	Instrument Codes	Y
7.	N	03	Presenting Participant Code	Complete with 0 to the left	Y
8.	N	08	Presentation date	Presentation date for clearing	Y
9.	N	08	Applied presentation date	Applied presentation date by the ACH	Y
10.	αN	07	Remittance number	-	Y
11.	N	02	Transaction Code	21 / 22 / 23 / 24	Y
12.	αN	03	Currency code	270 (GM) /694 (SL) / 324 (GN)	Y
13.	N	02	Rank	01 to 20 complementary records	Y
14.	N	01	Nature Bill of exchange	0 : Personal Bill of exchange 1 : Corporate Bill of exchange 2 : Bank Bill of exchange	Y
15.	N	12	Bill of exchange number		Y
16.	αN	30	Name or corporate name	Name or corporate name or the endorser or the approver	N
17.	αN	30	Address	-	N
18.	N	01	Identifier nature	1 : National id card 2 : Passport	Y
19.	αN	15	Identifier number		Y
20.	αN	337	Free zone		N

Length: 480 characters

**Y = Mandatory / N = Optional**

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 131/141</b>			

## IX.5.7 CARD TRANSACTIONS

### IX.5.7.1 Global record

N°	Type	Length	Name	Description	Mandatory
1.	N	01	Direction	1 / 2 (Outgoing / Incoming)	Y
2.	N	02	Clearing Code	00: Intra-banking. 01: National Inter-banking. 02: Regional Inter-banking.	Y
3.	αN	02	Remittent country code	GM = Gambia. SL = Sierra Leone GN = Guinea	Y
4.	N	08	Generation date	Generation date DDMMYYYY	Y
5.	N	06	Generation time	Generation time HHMMSS	Y
6.	N	02	Instrument Code	50 / 53	Y
7.	N	03	Participant code	Complete with 0 to the left	Y
8.	N	08	Presentation date	Presentation date for clearing DDMMYYYY	Y
9.	N	08	Applied presentation date	Applied presentation date by the ACH DDMMYYYY	Y
10.	αN	07	Remittance number	Complete with 0 to the left	Y
11.	N	02	Transaction Code	11 / 12 / 13 / 14	Y
12.	αN	03	Currency code	270 (GM) / 694 (SL) / 324 (GN)	Y
13.	N	15	Total amount of Transactions	Complete with 0 to the left	Y
14.	N	10	Total number of Transactions	Complete with 0 to the left	Y
15.	αN	232	Free zone	Complete with blanks to the right	N

Length: 310 characters

Y = Mandatory / N = Optional

### IX.5.7.2 Detail record

N°	Type	Length	Name	Description	Manda
1.	N	01	Direction	1 / 2 (Outgoing / Incoming)	Y
2.	N	02	Clearing Code	00: Intra-banking. 01: National Inter-banking. 02: Regional Inter-banking.	Y
3.	αN	02	Country Code	GM = Gambia. SL = Sierra Leone GN = Guinea	Y
4.	N	08	Generation date	Generation date DDMMYYYY	Y
5.	N	06	Generation time	Generation time HHMMSS	Y
6.	N	02	Instrument Code	50 / 53	Y

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	11/06/2010
Page 132/141			

7.	N	03	Presenting Participant Code	Complete with 0 to the left	Y
8.	N	08	Presentation date	Presentation date for clearing DDMMYYYY	Y
9.	N	08	Applied presentation date	Applied presentation date by the ACH DDMMYYYY	Y
10.	αN	07	Remittance number	Remittance nbr internal to the bank. Complete with 0 to the left.	Y
11.	N	02	Detail Transaction Code	21 / 22 / 23 / 24	Y
12.	αN	03	Currency code	270 (GM) / 694 (SL) / 324 (GN)	Y
13.	N	01	Transaction Type	1 : ATM 2 : POS	Y
14.	N	15	Transaction amount	Complete with 0 to the left	Y
15.	N	10	Transaction number	Complete with 0 to the left	Y
16.	N	03	Remitting branch code	Complete with 0 to the left	N
17.	N	08	Transaction Date	DDMMYYYY	Y
18.	αN	15	Authorization Number of Recipient bank	Complete with 0 to the left	Y
19.	N	03	Receiving participant code	Complete with 0 to the left	Y
20.	N	02	Receiving participant country code	GM = Gambia. SL = Sierra Leone GN = Guinea	Y
21.	N	18	Beneficiary account	(bank code, branch code, account number and account check digit)	Y
22.	αN	30	Beneficiary Name or corporate name	Complete with blanks to the right.	N
23.	αN	30	Beneficiary address	Complete with blanks to the right.	N
24.	N	12	Card reference		Y
25.	N	1	Card Reading Mode		Y
26.	N	08	Card validity starting date		Y
27.	N	08	Card Expiry date		Y
28.	αN	10	ATM/POS Reference		Y
29.	αN	12	Beneficiary reference		Y
30.	αN	01	Credit/Debit Fees	C : Credit / D : Debit	N
31.	N	15	Fees amount		N
32.	αN	15	Representation reason	only for representation. Complete with blanks to the right.	N
33.	N	08	Settlement date	Applied presentation date + Settlement date of the Instrument. DDMMYYYY	Y
34.	N	08	Rejection reason	Rejection reason code (4 Reasons). Complete with 0 to the left	Y
35.	αN	28	Free zone	Complete with blanks to the right.	N

Length: 310

Y = Mandatory / N = Optional

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	11/06/2010
Page 133/141			

## IX.5.8 FREE MESSAGE

### IX.5.8.1 Global record

N°	Type	Length	Name	Description	Manda
1.	N	01	Direction	1 / 2 (Outgoing / Incoming)	Y
2.	N	02	Clearing Code	00: Intra-banking. 01: National Inter-banking. 02: Regional Inter-banking.	Y
3.	αN	02	Country Code	GM = Gambia. SL = Sierra Leone. GN = Guinea.	Y
4.	N	08	Generation date	Generation date DDMMYYYY	Y
5.	N	06	Generation time	Generation time HHMMSS	Y
6.	N	02	Instrument Code	61	Y
7.	N	03	Presenting Participant Code	Codes participants. Complete with 0 to the left	Y
8.	N	08	Presentation date	Presentation date for clearing DDMMYYYY	Y
9.	N	08	Applied presentation date	Applied presentation date by the ACH. DDMMYYYY	Y
10.	αN	07	Remittance number	Codes participants. Complete with 0 to the left	Y
11.	N	02	Transaction Code	11	Y
12.	αN	03	Currency code	270 (GM) / 694 (SL) / 324 (GN)	Y
13.	N	10	Total number of Free Messages	Number of messages in the remittance. Complete with 0 to the left	Y
14.	αN	138	Free zone	Complete with blanks to the right	N

Length: 200

Y = Mandatory / N = Optional

### IX.5.8.2 Detail record

N°	Type	Length	Name	Description	Manda
1.	N	01	Direction	1 / 2 (Outgoing / Incoming)	Y
2.	N	02	Clearing Code	00: Intra-banking. 01: National Inter-banking. 02: Regional Inter-banking.	Y
3.	αN	02	Country Code	GM = Gambia. SL = Sierra Leone. GN = Guinea.	Y
4.	N	08	Generation date	Generation date DDMMYYYY	Y
5.	N	06	Generation time	Generation time HHMMSS	Y
6.	N	02	Instrument Code	61	Y
7.	N	03	Presenting Participant Code	Participant codes. Complete with 0 to the left	Y
8.	N	08	Presentation date	Presentation date for clearing. DDMMYYYY	Y

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	11/06/2010
Page 134/141			

9.	N	08	Applied presentation date	Applied presentation date by the ACH. DDMMYYYY	Y
10.	αN	07	Remittance number	Complete with 0 to the left	Y
11.	N	02	Transaction Code	21	Y
12.	αN	03	Currency code	270 (GM) /694 (SL) / 324 (GN)	Y
13.	αN	07	Message number	Complete with 0 to the left	Y
14.	N	03	Receiving participant code	Participant Code. Complete with 0 to the left	Y
15.	αN	02	Receiving participant country code	GM = Gambia. SL = Sierra Leone. GN = Guinea.	Y
16.	αN	100	Message zone	Message entry zone. Complete with blanks to the right	N
17.	αN	36	Free zone	Complete with blanks to the right	N

Length: 200

Y = Mandatory / N = Optional

## IX.5.9 NON PAYMENT NOTICE

### IX.5.9.1 Global record

N°	Type	Length	Name	Description	Manda
1.	N	01	Direction	1 / 2 (Outgoing / Incoming)	Y
2.	N	02	Clearing Code	00: Intra-banking. 01: National Inter-banking. 02: Regional Inter-banking.	Y
3.	αN	02	Country Code	GM = Gambia. SL = Sierra Leone. GN = Guinea.	Y
4.	N	08	Generation date	Generation date DDMMYYYY	Y
5.	N	06	Generation time	Generation time HHMMSS	Y
6.	N	02	Instrument Code	62	Y
7.	N	03	Presenting Participant Code	Participant code. Complete with 0 to the left	Y
8.	N	08	Presentation date	Presentation date for clearing DDMMYYYY	Y
9.	N	08	Applied presentation date	Applied presentation date by the ACH DDMMYYYY	Y
10.	αN	07	Remittance number	Complete with 0 to the left	Y
11.	N	02	Transaction Code	11	Y
12.	αN	03	Currency code	270 (GM) /694 (SL) / 324 (GN)	Y
13.	N	15	Total amount of Transactions	Complete with 0 to the left	Y
14.	N	10	Total number of Non payment notice	Complete with 0 to the left	Y
15.	αN	293	Free zone	Complete with blanks to the right	N

Length: 370

Y = Mandatory / N = Optional

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	11/06/2010
Page 135/141			

### IX.5.9.2 Detail record

N°	Type	Length	Name	Description	Manda
1.	N	01	Direction	1 / 2 (Outgoing / Incoming)	Y
2.	N	02	Clearing Code	00: Intra-banking. 01: National Inter-banking. 02: Regional Inter-banking.	Y
3.	αN	02	Country Code	GM = Gambia. SL = Sierra Leone. GN = Guinea.	Y
4.	N	08	Generation date	Generation date DDMMYYYY	Y
5.	N	06	Generation time	Generation time HHMMSS	Y
6.	N	02	Instrument Code	62	Y
7.	N	03	Presenting Participant Code	Complete with 0 to the left	Y
8.	N	08	Presentation date	Presentation date for clearing DDMMYYYY	Y
9.	N	08	Applied presentation date	Applied presentation date by the ACH DDMMYYYY	Y
10.	N	07	Remittance number	Complete with 0 to the left	Y
11.	N	02	Transaction Code	21	Y
12.	αN	03	Currency code	270 (GM) /694 (SL) / 324 (GN)	Y
13.	N	01	Non Payment notice number	1 For physical person, 2 For corporation, 3 Other	Y
14.	N	15	Cheque or bill of exchange amount	Complete with 0 to the left	Y
15.	N	12	Payment instrument number	Cheque or Bill of exchange number. Complete with 0 to the left	Y
16.	N	03	Remittent Branch Code	Complete with 0 to the left	Y
17.	N	08	Remitting Date	DDMMYYYY	Y
18.	N	18	Drawee account		Y
19.	N	03	Receiving participant code	Complete with 0 to the left	Y
20.	N	02	Receiving participant country code	GM = Gambia. SL = Sierra Leone. GN = Guinea.	Y
21.	N	18	Beneficiary account		Y
22.	αN	30	Beneficiary Name or corporate name	Complete with blanks to the right	Y
23.	αN	30	Beneficiary address	Complete with blanks to the right	N
24.	αN	30	Drawn Name or corporate name	Complete with blanks to the right	N
25.	αN	30	Drawn Address	Complete with blanks to the right	N
26.	N	01	Identifier type of the offender	1 : National identity card 2 :Passport number	Y
27.	αN	15	Identifier number of the offender	Identity card, etc... Complete with blanks to the right	Y

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 136/141</b>			



28.	αN	30	Drawn business reference (statistics number of the offender)	Drawn business reference if corporation Complete with blanks to the right	Y
29.	αN	01	offender gender	M : male, F : female, I : Unknown for a corporation	N
30.	N	02	Payment mean type	For cheques : 30 / 33 For Bill of exchanges: 40 / 43.	Y
31.	N	08	Issue date of the cheque or creation date of the Bill of exchange	DDMMYYYY	Y
32.	αN	15	Representation reason	only for representation. Complete with blanks to the right	N
33.	N	08	Settlement date	DDMMYYYY	Y
34.	N	08	Rejection reason	Code du rejection reason (4 Reasons). Complete with 0 to the left	Y
35.	N	08	Maturity Date	DDMMYYYY	Y
36.	αN	22	Free zone	Complete with blanks to the right	N

Length: 370

Y = Mandatory / N = Optional

## IX.5.10 FUND RECOVERY NOTICE

### IX.5.10.1 Global record

N°	Type	Length	Name	Description	Manda
1.	N	01	Direction	1 / 2 (Outgoing / Incoming)	Y
2.	N	02	Clearing Code	00: Intra-banking. 01: National Inter-banking. 02: Regional Inter-banking.	Y
3.	αN	02	Remittent country code	GM = Gambia. SL = Sierra Leone GN = Guinea	Y
4.	N	08	Generation date	Generation date DDMMYYYY	Y
5.	N	06	Generation time	Generation time HHMMSS	Y
6.	N	02	Instrument Code	83	Y
7.	N	03	Participant code	Complete with 0 to the left	Y
8.	N	08	Presentation date	Presentation date for clearing DDMMYYYY	Y
9.	N	08	Applied presentation date	Applied presentation date by the ACH DDMMYYYY	Y
10.	αN	07	Remittance number	Complete with 0 to the left	Y
11.	N	02	Transaction Code	11 / 12 / 13 / 14	Y
12.	αN	03	Currency code	270 (GM) / 694 (SL) / 324 (GN)	Y
13.	N	15	Total amount of cheques	Complete with 0 to the left	Y
14.	N	10	Total number of cheques	Complete with 0 to the left	Y
15.	αN	263	Free zone	Complete with blanks to the right	N

Length: 340 characters

Y = Mandatory / N = Optional

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	11/06/2010
Page 137/141			

### IX.5.10.2 Detail record

N°	Type	Length	Name	Description	Manda
1.	N	01	Direction	1 / 2 (Outgoing / Incoming)	Y
2.	N	02	Clearing Code	00: Intra-banking. 01: National Inter-banking. 02: Regional Inter-banking.	Y
3.	αN	02	Country Code	GM = Gambia. SL = Sierra Leone GN = Guinea	Y
4.	N	08	Generation date	Generation date DDMMYYYY	Y
5.	N	06	Generation time	Generation time HHMMSS	Y
6.	N	02	Instrument Code	30 / 33	Y
7.	N	03	Presenting Participant Code	Complete with 0 to the left	Y
8.	N	08	Presentation date	Presentation date for clearing DDMMYYYY	Y
9.	N	08	Applied presentation date	Applied presentation date by the ACH DDMMYYYY	Y
10.	N	07	Remittance number	Internal reference to the remittent bank. Complete with 0 to the left	Y
11.	N	02	Detailed Transaction Code	21 / 22 / 23 / 24	Y
12.	αN	03	Currency code	270 (GM) / 694 (SL) / 324 (GN)	Y
13.	N	15	Cheque amount	- Complete with 0 to the left	Y
14.	N	15	Adjusted amount	- Complete with 0 to the left	Y
15.	N	08	Cheque number	- Complete with 0 to the left	Y
16.	N	03	Remitting branch code	Complete with 0 to the left	Y
17.	N	08	Rejection Date	Rejection date of the operation DDMMYYYY	Y
18.	N	18	Drawer account	-	Y
19.	αN	30	Drawer name or corporate name	Complete with blanks to the right	Y
20.	αN	30	Drawer address	Complete with blanks to the right	N
21.	N	03	Receiving participant code	Complete with 0 to the left	Y
22.	N	02	Receiving participant country code	GM = Gambia. SL = Sierra Leone GN = Guinea	Y
23.	N	18	Beneficiary account		Y
24.	αN	30	Beneficiary Name or corporate name	Complete with blanks to the right	Y
25.	αN	30	Beneficiary address	Complete with blanks to the right	N
26.	N	08	Issue date of the cheque	DDMMYYYY	Y
27.	αN	15	Representation reason	only for representation. Complete with blanks to the right	N
28.	N	08	Settlement date	Applied presentation date + Settlement date of the Instrument. DDMMYYYY	Y

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 138/141</b>			

29.	N	08	Rejection reason	Code du rejection reason (4 Reasons). Complete with 0 to the left	Y
30.	αN	39	Free zone	Complete with blanks to the right	N

**Length : 340 characters**

**Y = Mandatory / N = Optional**

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	<ul style="list-style-type: none"> <li>Draft</li> <li>To be validated</li> <li>• Validated</li> </ul>	<b>Date of update</b>	<b>11/06/2010</b>
<b>Page 139/141</b>			

### IX.5.11 TECHNICAL REJECTION STRUCTURES

Technical rejection files have the same structure as ENV files to which has been added a rejection zone containing two fields: rejection code and rejection name. Technical rejection files have the RJT extension.

Remittance Structure	ENV Length	Rejection Code	Rejection Name	RJT Length
10/13	380	Numeric (5)	Alpha -Numeric (70)	455
12	430	Numeric (5)	Alpha -Numeric (70)	505
20/23	390	Numeric (5)	Alpha -Numeric (70)	465
30/33	310	Numeric (5)	Alpha -Numeric (70)	385
40/43	480	Numeric (5)	Alpha -Numeric (70)	555
50/53	310	Numeric (5)	Alpha -Numeric (70)	385

### IX.5.12 REPORT STRUCTURES

#### IX.5.12.1 Report file structure (CPR/CRS)

##### IX.5.12.1.1 Global record

N°	Type	Length	Name	Description
1.	N	01	Direction	2 : Clearing Return
2.	N	02	Clearing Code	01
3.	αN	02	Country Code	GM = Gambia. SL = Sierra Leone GN = Guinea
4.	N	08	Generation date	Generation date
5.	N	06	Generation time	Generation time
6.	N	02	Transaction Code	11
7.	N	08	Instrument date	
8.	N	03	Currency code	270 (GM) /694 (SL) / 324 (GN)
9.	N	03	Participant Code	-
10.	N	10	Remittances global number	Number of remittances
11.	N	15	Remittances global amount	Remittances amount
12.	αN	115	Free zone	

Length 175

##### IX.5.12.1.2 Detail record

N°	Type	Length	Name	Description
1.	N	01	Direction	2 : Clearing Return
2.	N	02	Clearing Code	01
3.	αN	02	Country Code	GM = Gambia. SL = Sierra Leone GN = Guinea
4.	N	08	Generation date	Generation date
5.	N	06	Generation time	Generation time
6.	N	07	Remittance number	Processed remittance number
7.	N	02	Transaction Code	

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	11/06/2010
Page 140/141			

8.	N	08	Clearing date	
9.	N	02	Instrument Code	Instrument codes
10.	N	03	Currency code	270 (GM) /694 (SL) / 324 (GN)
11.	N	03	Participant code	-
12.	N	08	Generation date	Generation date of the remittance
13.	N	06	Generation time	Generation time of the remittance
14.	N	14	Arrival date and time	Arrival date and time of the remittance
15.	N	14	Processing starting date and time	Controlling date and time of the remittance
16.	N	14	Processing ending date and time	Processing ending date and time of the remittance
17.	N	08	Applied presentation date	Calculated presentation date of the remittance
18.	N	08	Applied settlement date	Settlement date calculated by the ACH
19.	N	1	Direction of the processed remittance	1 : Clearing outgoing 2 : Clearing Incoming
20.	N	01	Control status	1 : Accepted ; 2 : Rejected ; 3 : Partially accepted
21.	N	10	Number of accepted operations	Total number of accepted operations in the remittance
22.	N	15	Amount Accepted operations	Total amount of accepted operations in the remittance
23.	N	10	Number of rejected operations	Total number of rejected operations in the remittance
24.	N	15	Amount of rejected operations	Total amount of rejected operations in the remittance
25.	αN	07	Free zone	

Length: 175

### IX.5.12.2 Structures of Transaction report files (CRO)

The report files CRO have the same structure as the ENV files to which a status and a name have been added. The report files have the CRO extension.

Remittance structure	Length ENV	Status	Name	Length CRO
10/13	380	Numeric (1)	Alpha -Numeric (75)	456
12	430	Numeric (1)	Alpha -Numeric (75)	506
20/23	390	Numeric (1)	Alpha -Numeric (75)	466
30/33	310	Numeric (1)	Alpha -Numeric (75)	386
40/43	480	Numeric (1)	Alpha -Numeric (75)	556
50/53	310	Numeric (1)	Alpha -Numeric (75)	386

<b>Project</b>	ACP / ACH system	<b>Sub Project</b>	Participant Guide
<b>Status</b>	Draft To be validated • Validated	<b>Date of update</b>	11/06/2010
Page 141/141			