

Vestima^{TRACK}

Investment Funds Services

Input Express Specifications

CSV files sent to Clearstream

Vestima^{TRACK} – Input Express Specifications: CSV files sent to Clearstream

July 2013

Document number: 6693

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Foreword

Vestima^{TRACK} is Clearstream's¹ service for providing transparency of holdings in investment funds. The Vestima^{TRACK} system accepts inbound statements of holdings from distributors and investors and, after validation and enrichment, distributes the data to the respective Transfer Agents (TAs) or their representatives.

These specifications cover the layout and use of the Comma Separated Value (CSV) file sent to Clearstream. In a future release, Vestima^{TRACK} will use an XML schema for meeting more enhanced input requirements. Please contact Vestima^{TRACK} support for availability and further information (see below).

Contact details

To receive sample Vestima^{TRACK} CSV data files, any other information you may require, or if you have specific questions regarding the Vestima system and/or communications with Clearstream Banking, you can contact Customer Service in Luxembourg as follows:

Telephone:	+352-243-38110	Connectivity Support for access/configuration issues
	+352-243-32833	Vestima Help Desk for business queries
	+352-243-32555	Vestima Product information
Fax:	+352-243-638110	Connectivity Support
Email:	csvestima@clearstream.com	Vestima Help Desk for business queries
	connectlux@clearstream.com	Connectivity Support
Website:	www.clearstream.com	Clearstream Banking website
	www.vestima.com	Clearstream Banking Investment Funds Services

Participants should note that, as is normal practice within financial organisations, Clearstream Banking has implemented telephone line recording to ensure that the interests of Clearstream Banking and of its participants are protected against misunderstandings or miscommunications.

Areas subject to telephone line recording include Customer Service, the Treasury Dealing Room and back office operations. The recorded lines are the subject of an ongoing formal maintenance and quality control programme to ensure their continued effective and appropriate deployment and operation.

1. Clearstream Banking (or Clearstream) refers collectively to Clearstream Banking AG, registered office at 61, Mergenthalerallee, 65760 Eschborn, Germany and registered in the Register B of the Amtsgericht Frankfurt am Main, Germany under number HRB 7500 (CBF) and Clearstream Banking S.A., registered office at 42, avenue John F. Kennedy, L-1855 Luxembourg, and registered with the Luxembourg Register of Commerce and Companies under number B-9248 (CBL),

Legal considerations

By providing additional information to Clearstream that is relevant for Vestima^{TRACK}, the customer explicitly authorises Clearstream to communicate this to the agent of the investment fund and any other agent as may be appointed from time to time by the customer, without any obligation on Clearstream to verify the accuracy or completeness of this information.

To ensure compliance with any applicable data protection law and/or regulation, no data relating to natural persons may be included in the information provided to Clearstream for Vestima^{TRACK} and Clearstream may hold the customer liable for any such data included in the information provided to Clearstream whether or not subsequently forwarded to the agent of the investment fund or any other agent as may be appointed from time to time by the customer.

The customer undertakes to comply with the applicable laws, regulations and orders when providing additional information that is relevant for Vestima^{TRACK} and remains responsible towards Clearstream in connection with such information. The customer will hold Clearstream harmless and agrees to indemnify Clearstream in cases of non-compliance by the customer with obligations that it incurs by its subscription and subsequent use of the Vestima^{TRACK} service.

For further information, please refer to the section on Disclosure requirements for Investment Funds in the Clearstream Banking [Customer Handbook](#).

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Introduction

Vestima^{TRACK} is Clearstream's service for providing transparency of holdings in investment funds. The Vestima^{TRACK} system accepts inbound statements of holdings from distributors and investors and, after validation and enrichment, distributes the data to the respective Transfer Agents (TAs) or their representatives.

Statements of holdings can be submitted in files that cover either a single day or a single month. In either case, the statements must cover all calendar days (7/7) because a holiday in the sender's region may not be a holiday in the region of the TA.

Zero positions do not need to be reported. An account that previously held a position in an ISIN is considered to have made a full withdrawal of that ISIN on the calendar day on which the position is not reported.

Connectivity

There are two choices for connecting to Vestima^{TRACK}:

- Files can be sent through CreationDirect via Internet; and
- Customers can upload files to Vestima using an Internet browser.

For further information about accessing and using these applications, please see ["Contact details"](#) on page i.

File names and compression

Data can be sent in its plain text CSV format or as an archive file compressed using a 32-bit ZIP algorithm.

Note: Data files may have any name if compressed in an archive file. An archive file may only contain one data file and must not be encrypted.

The name of the Vestima^{TRACK} input CSV file is made up of three elements:

- Prefix;
- User-defined text; and
- File extension.

These elements must be separated using the period (.) character. The file naming convention defined in the following sections is for the transmitted file, whether it is a data file or an archive file.

Prefix

The files that you send via CreationDirect via Internet or upload via the Vestima web-browser interface must be prefixed by:

IF.VESTIMA.VTIN

Introduction

User-defined text

The part of the file name after the prefix is for the customer's own requirements, for example, each file that is sent can be stored locally with a unique identifier. The information inserted here will have no implications for Vestima^{TRACK}.

Special characters that must not be used in file names include:

* ? : / \ " < > | and space

File extension

There are three supported file name extensions for the data file:

CSV, TAB or TXT

The choice will not affect the processing at Clearstream.

A compressed archive file must have the extension ZIP.

Examples

The following file names are valid:

IF.VESTIMA.VTIN.MYFILE.ZIP

IF.VESTIMA.VTIN201203201204011753.CSV

The following file names are not valid:

VTIN.ZIP

Incorrect prefix

IF.VESTIMA.VTIN.ACC87654TAB

Missing (separator and therefore missing) extension

IF.VESTIMA.VTIN.ACC87654.GZ

Incorrect extension

File content records and fields

The following specifications must be adhered to:

- Each line in the data file is a record comprising a fixed number of fields (values).
- There are individual record "types" for data file header, body and trailer.
- A data file can include one header record, multiple body records and one trailer record.
- All records of a particular "type" must contain the respective fixed number of fields.
- Fields in all records are separated by comma (,) characters.
- All fields must be represented in the record, regardless of content. An empty field requires two adjacent commas (with nothing between them); for an empty text field, two adjacent double quotation (") characters can be used.
- Each line in a data file must be terminated by a line feed (LF 0x0a) or a carriage return and line feed (CR-LF 0x0d0a).

Format codes

The following codes and symbols are used to describe the formats that can be used in the fields:

0 to 9	The length of a field (not counting field separators, decimal separators or any double quotation characters used as delimiters, or “escape” characters)
!	The length of the field is fixed
u	Unsigned numeric, integer portion
d	Numeric, decimal portion
a	Upper-case alphabetic (A to Z)
c	Alphanumeric (upper-case A to Z and 0 to 9)
x	Any character
date	Date, date and time, or year and month
[]	Used to designate optional content

Numerical data

The decimal separator is a period (.) character (0x2e) and there must be no thousands separator.

The maximum length of a numerical field specifies the total number of integer and decimal digits without counting any decimal separator.

Negative values are not allowed; all numbers must be expressed as either zero or unsigned positive.

Text data

Double quotation (") characters (0x22) can be used as delimiters for all fields except those containing numerals or dates. The use of these as delimiters is mandatory for a text field that contains an embedded comma (,) character (0x2c) or double quotation (") character. Each embedded double quotation character within a field must be “escaped” using an adjacent double quotation character.

Clearstream recommends that delimiters also be used for text fields that contain one or more embedded semicolon (;) characters (0x3b).

The maximum length of a text field refers to the total number of characters without counting any double quotation characters used as delimiters or “escape” characters.

N.B.: Single quotation (') characters (0x27) and ampersand (&) characters (0x26) may cause technical issues for recipients of the Vestima^{TRACK} output reports and should therefore be avoided.

Standards

The following international standards are applicable:

- ISO 6166 defines the International Securities Identifying Number (ISIN).
- ISO 8601 defines the contents of date and date-time information.
- ISO 9362 defines the Business Identifier Code (BIC).
- ISO/IEC 8859-1 (also known as Latin-1) defines the character set for fields that have “x” as the format code.

Introduction

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Inbound file specifications

The content of the inbound Vestima^{TRACK} CSV file is in three parts:

- Header;
- Body; and
- Trailer.

The layouts of these parts are shown in specifications tables, whose columns have the meanings indicated:

Column	The column reference letter in the file opened in common spreadsheet software.
Field Name	The name of the field, determining the meaning of the associated value in the Content column.
Format	The format of the field content (see “Format codes” on page 3).
M/C	The usage of the field, where M = mandatory and C = conditional. For conditional fields, the specific condition is defined in the “Content” column.
Content	This may be: <ul style="list-style-type: none"> • A definition of what constitutes a valid value; or • A specific value, delimited by double quotation (") characters, that the associated field must contain if filled.

Please refer also to [“File content records and fields”](#) on page 2.

N.B.: Spreadsheet software may entail formatting issues, in particular with field separators and date values.

Inbound file specifications

Header

At least one header record must be present in the file.

Column	Field Name	Format	M/C	Content
A	Record type	1!a	M	"H"
B	Record number	8u	M	Sequential record number, starting with 1. Only record 1 of the header is processed by Clearstream. Subsequent header records are optional and free-format, except that they must have "H" and the record number in the first two columns.
C	Report name	35x	M	"VT-In Express v1.0"
D	Report sender	35x	M	Name of the report sender.
E	Report reference	35x	M	Sender's unambiguous reference of the report.
F	Preparation date time	date	M	Date and time in extended format with the time zone of the sender. This should be unique for each report. Valid formats are: YYYY-MM-DDThh:mm:ssZ YYYY-MM-DDThh:mm:ss±hh YYYY-MM-DDThh:mm:ss±hh:mm
G	Statement period ^a	date	M	Month or day that is covered by the statement. Valid formats are: YYYY-MM (month) YYYY-MM-DD (day)

a. A subsequent statement (as determined by the preparation date time) covering a statement period that was already reported previously will cause the previous statement to be discarded in its entirety. Partial replacement is not supported.

Body

Multiple body records can be used per file and can be included in any order. Clearstream recommends an ascending order using the following nested sort criteria:

1. Fund class ISIN (column E);
2. Statement date (column M);
3. Account ID (column F);
4. Subaccount ID (column G).

Column	Field Name	Format	M/C	Content
A	Record type	1!a	M	"B"
B	Record number	8u	M	Sequential record number, continued from the record number series of the record header.
C	Subaccount servicer BIC	8!c[3!c]	C	BIC of the subaccount servicer or their agent, that is, the entity reporting the position. Either one or both of columns C and D must be filled.
D	Subaccount servicer name	35x	C	Name of the subaccount servicer or their agent, that is, the entity reporting the position. Either one or both of columns C and D must be filled.

Column	Field Name	Format	M/C	Content
E	Fund class ISIN	12!c	M	ISIN of the holding's fund class.
F	Account ID	5!c	M	Clearstream account associated with the subaccount.
G	Subaccount ID	35x	M	Account held at the subaccount servicer (columns C and/or D) for their client or for themselves. Note: A Clearstream account can be associated with more than one subaccount.
H	Subaccount name	35x	M	Descriptive name associated with the subaccount.
I	Subaccount owner BIC	8!c[3!c]	C	BIC of the subaccount owner. Either one or both of columns I and J must be filled.
J	Subaccount owner name	35x	C	Institution name of the subaccount owner. Either one or both of columns I and J must be filled.
K	Subaccount settled position	16u[6d]	C	That part of the settled position on the account that is held on this subaccount. Either one or both of columns K and L must be filled.
L	Subaccount traded position	16u[6d]	C	That part of the traded position on the account that is held on this subaccount. Either one or both of columns K and L must be filled.
M	Statement date	date	M	Calendar date on which the position(s) is (are) recorded. Valid format is YYYY-MM-DD.

Trailer

Only one trailer record can be used per file.

Column	Field Name	Format	M/C	Content
A	Record type	1!a	M	"T"
B	Record number	8u	M	Sequential record number, continued from the record number series of the record header and record body.
C	Total count of records	8u	M	Total count of records of the statement. This repeats the trailer record number in column B.
D	End of report marker	19!x	M	"***END OF REPORT***"

Example

```
H,1,VT-In Express v1.0,Grand Central Funds,Rpt1001,2011-11-03T15:35:12+01,2011-10
B,2,DUMMYBIC,,LU111111111,12345,98/76,"ABC",,"Funds-R-Us",150000,150000,2011-10-01
B,3,DUMMYBIC,,LU222222222,12345,54/32-1P,XYZ,ANOTHERXBIC,,200000,200000,2011-10-01
B,4,DUMMYBIC,,LU333333333,12345,98/76,"ABC",,"Funds-R-Us",70000,70000,2011-10-01
T,5,5,***END OF REPORT***
```

Inbound file specifications

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Feedback file specifications

For each CSV file sent to Clearstream, Vestima^{TRACK} will respond with a CSV file containing validation and processing results.

The name of the CSV feedback file will begin with the same name as the inbound CSV file (without the extension), contain two numeric identifiers and end with "TECHFDBCK.CSV".

For example:

IF.VESTIMA.VTIN201301.5389242055246390182.951.TECHFDBCK.CSV

The content of the outbound CSV feedback file is in three parts:

- Header;
- Body; and
- Trailer.

The layouts of these parts are shown in specifications tables, whose columns have the meanings indicated:

Column	The column reference letter in the file opened in common spreadsheet software.
Field Name	The name of the field, determining the meaning of the associated value in the Content column.
Format	The format of the field content (see "Format codes" on page –3).
Content	This may be: <ul style="list-style-type: none"> • A definition of what constitutes a valid value; or • A specific value, delimited by double quotation (") characters, that the associated field contains if filled.

Please refer also to ["File content records and fields"](#) on page 2.

N.B.: Spreadsheet software may entail formatting issues, in particular with field separators and date values.

Feedback file specifications

Header

Only one header record can be used per file.

Column	Field Name	Format	Content
A	Record type	1!a	"H"
B	Record number	8u	Sequential record number, starting with 1. Only record 1 contain data as per the header specifications. Header record 2 (columns C to G) contains the field names of header record 1.
C	Report name	35x	"VT-Feedback Express v1.0"
D	Report sender	35x	"Clearstream Banking S.A."
E	Report reference	35x	Clearstream's unambiguous reference of the report.
F	Preparation date time	date	Date and time in extended format with the time zone. Valid formats are: YYYY-MM-DDThh:mm:ss+0100 YYYY-MM-DDThh:mm:ss+0200
G	Status	35x	The validation status of the file. Valid values are: "File accepted" "File accepted with exception(s)" "File rejected"

Body

One or more body records will be used per file.

Column	Field Name	Format	Content
A	Record type	1!a	"B"
B	Record number	8u	Sequential record number, continued from 3 (the last record number of the header being 2).
C	Quoted record	350x	Quote of a record from the inbound file. The first header record will always be quoted. In addition, any record with a validation error will also be quoted.
D	Validation status	350x	The validation status will be either "OK" or a description of a specific validation error. Multiple errors for the same record are concatenated with a vertical bar ().

Trailer

Three trailer records are used per file.

Column	Field Name	Format	Content
A	Record type	1!a	"T"
B	Record number	8u	Sequential record number, continued from the last record number of the body.
C	Result	35x	First trailer record:
	or	or	"Number of accepted subaccount position(s): n"
	Total count of records	8u	Second trailer record:
			"Number of rejected subaccount position(s): n"
			Third trailer record:
			Total count of records
D	End of report marker	19!x	Third trailer record: "****END OF REPORT****"

Example

```
"H",1,"VT-Feedback Express v1.0","Clearstream Banking S.A.,"951",2011-11-03T16:18:07+0100,"File accepted"
"H",2,"Report name","Report sender","Report reference","Preparation date time","Status"
"B",3,"H,1,VT-In Express v1.0,Grand Central Funds,Rpt1001,2011-11-03T15:35:12+01,2011-10","OK"
"T",4,"Number of accepted subaccount position(s): 3"
"T",5,"Number of rejected subaccount position(s): 0"
"T",6,6,"****END OF REPORT****"
```

Feedback file specifications

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Contact
www.clearstream.com

Published by
Clearstream Banking S.A.

Registered address
Clearstream Banking S.A.
42 Avenue John F. Kennedy
L-1855 Luxembourg

Postal address
Clearstream Banking S.A.
L-2967 Luxembourg

July 2013

Document number: 6693
