

**KM client format supported by KB
valid from 1. 8. 2021**

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1 Introduction

1.1 Purpose of this document

Services provided by KB within the framework of the application server (AS) and enabling operation with batches in the KM format:

- Mojebanka Business
- Profibanka (providing also KM76 and KM78,79 mutations)
- Direct channel

The purpose of this document is to describe the KM format and required validations when IMPORTING data and to define the procedure of EXPORTING data in relation to accounting applications of clients. The above-mentioned IMPORT and EXPORT concerns KB Direct banking services (DCS).

The description is divided into the following sections:

- Import
 - format field declarations - domestic payments
 - list of field validations - domestic payments
- Export
 - format field declarations - electronic statements
- There are two types of detected errors:
 - E = error - this will cause rejection
 - W = warning - this is merely a warning and will not cause rejection of the batch. The client decides whether to keep the batch in processing (it is not applied in DC).

1.2 Characteristics of the KM format

Brief description of the KM format:

- Basic **KM format** includes:
 - Domestic payment orders: main accounting data in domestic payment orders (payment and collection in CZK only). The length is variable and the format allows the entering of single and multiple POs. See the IMPORT KM chapter for details.
 - Electronic statement: main accounting data and 20-character additional text in the electronic statement. See EXPORT of KM for details.
- **KM76 format** (the export file format is modified - includes another type of record. It is a modification of the KM format) includes:
 - Domestic payment orders: main accounting data in domestic payment orders (payment and collection in CZK). The length is variable and the format allows the entering of single and multiple POs. See the IMPORT KM chapter for details.
 - Electronic statement: main accounting data and 20-character additional text in the electronic statement. In addition, it has the 076 type of record and different date fields layout. See EXPORT of KM76 for details.
- **KM78, 79 format** (a modification of the KM format - added AV field for exporting) includes:
 - Domestic payment orders: main accounting data in domestic payment orders (payment and collection in CZK). The length is variable and the format allows the entering of single and multiple POs including the AV field (advice to the partner). See the IMPORT KM chapter for details.
 - Electronic statement: main accounting data and 20-character additional text in the electronic statement. Optional downloading of the partner's message (AV field) using new record types (078 and 079). See EXPORT of KM78, 79 for details.

- **Code page**
 - DC - requires windows-1250 – *Windows Eastern European* (Windows CRLF line feed)
 - PCB - requires windows-1250 – *Windows Eastern European* (PCB line feed can be managed by both CRLF (#13#10) and Unix LF (#10) or MAC CR (#13))
 - MBB - requires windows-1250 – *Windows Eastern European* (Windows CRLF line feed)

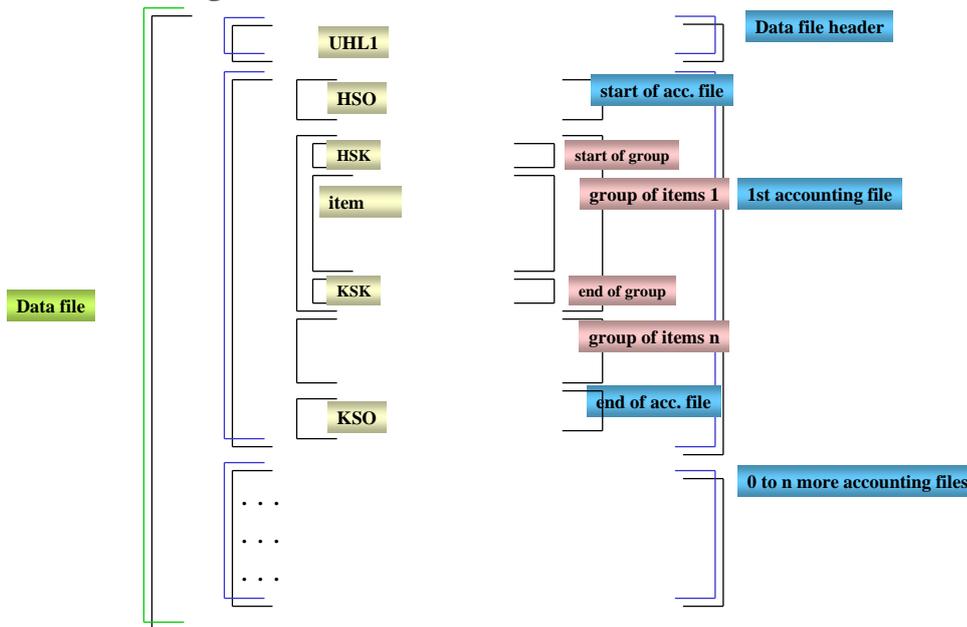
2 Formal check of KM format

2.1 KM format - domestic payments

The main structure of batches of payment orders

- Payments transferred via KM format may **only be in CZK**.
- The constant symbol in KM allows you to enter only 4 positions since information on the bank code and priority is also transferred within KM.
- The sequence of processing in KB central system can be influenced by setting the **Priority**. It can be transferred at the 2nd position from the left in the Constant symbol. The priority values are 0 to 9, where 0 to 2 are disabled system priorities not permitted for the client (if used, they will be replaced by the standard value - 5). The highest priority value available to clients is 3, the lowest is 9. By default, all batch-transferred payments are processed under priority 5.
- **Data files** start with "UHL1" and contain one or several accounting files. *Note: The file is identified by its number and can be transferred only once in a day.*
 - maximum size of data files
 - a data file in the KM format may contain up to 99 999 items
 - if more payment orders should be sent, they must be divided into more data files
 - recommended size of data files
 - in spite of the fact that accounting files may contain up to 99 999 items, it is recommended to reach this upper limit only in exceptional cases. It is recommended to send up to 90 000 items in a single data file.
- **Accounting files** start with HSO and end with KSO. They contain one or several item groups.
- Each accounting file has its defined common data type (either sole collections or payments are in one accounting file).
- **Item groups** start with HSK and end with KSK. Each group contains one or more items.
- Each item group has a defined common due date and checksum of amounts in the group.
- There are two forms of **items**:
 - multiple payment order
 - it has a pre-defined account in HSK
 - actual items have only contra-accounts, amounts, VS, CS and optional SS
 - single payment order
 - it has no account in HSK (or the account is zero)
 - the actual item has an account, contra-account, amount, VS, CS and optional SS
- Uniqueness of items within a day is defined by:
 - the date of creation in UHL1 + the number of the accounting file in HSO + the sequential number of the payment assigned to the payment according to its sequence position in the file during IMPORTing.
 - unique identification will be extended to processed transactions and availability in EXPORT will be secured (sss file number generated by the client and nnnn sequential number of an item added according to the sequence position during importing).
- Account numbers are in edit format (without swapping positions) and consist of two parts:
 - ante-number 0-6 characters (optional)
 - number 2-10 characters
 - separator "-" is allowed between the account number and ante-number
- the amount is given with halers (with the exception of weak currencies that have 00 in the last two positions), the sign is not specified - it is set by the data type (1501 - payment, 1502 - collection)
- Individual fields are separated by a separator - space
- Some fields are optional and may not be specified (e.g. Specific symbol)
- Length of fields is free, within the specific minimum and maximum limit of chars set directly in the format.
- Individual rows end with CRLF.

- **Note:** fields in a KM item are separated by a separator - space. Specific symbol and AV need not be specified; excess zeroes may but need not be added to numeric values. Records are ended with CRLF. Spaces may be put between the last compulsory field of items and CRLF.
- In the KM format, it is not possible to transfer cancellation batches
- Invalid Constant symbols according to ČNB order (for the latest list, see help for Mojobanka and Profibanka):
 - *???5 Corrective settlement*
 - *??51 Execution*
 - *0006 Non-existing account*
 - *0007 Collection refund*

IMPORTING in the KM format

KM format:
UHL1 record - the first record in a file:

Ser. no.	Name	min. length	max. length	List of contents	offset	link validation	Note	if the assumption is not valid, errors occur in validated fields	error type
1.	Type of message	4	4	UHL1	0			UHL1 missing	E
2.	Creation date	6	6	ddmmyy	4	1	current date of creating data - DDMMYY the date has no relation to due dates of items in files	1. invalid date 2. the creation date is not the current date (if validation of Creation date = current day is activated) 3. creation date can only be within the range of -31 to +364 days, if the option of no validation of Creation date is chosen	E E
3.	Abbrev. client name	20	20	aaaaaaaa aaaaaaaa aa	10		used by the client, not checked		
4.	Client number	10	10	nnnnnnnn nn	30		not used, ignored		
5.	Beginning of the range of acc. files	3	3	nnn	40		Range of acc. files - used to check acc. file headers. The beginning is defined by clients (form: 000 - 999)	1. The beginning of range of acc. files is not defined	E E
6.	End of the range of acc. files	3	3	nnn	43		1. Range of acc. files - used to check acc. file headers. The end is defined by clients (form: 000 - 999)	1. The end of range of acc. files is not defined	E
7.	Fixed part of security	0	6		46		not used, ignored		
8.	Private part of security	0	6		46 to 52		not used, ignored		
9.	File sentinel	2	2	CRLF	46 to 58				

Comment 1: It is recommended to set the range of files to 1 to 999 since in electronic statements (GPC files), the file number is zero in case the transaction was not entered via input batch files via Mojebanka, Profibanka or DC. It is necessary to pair items on the side of the client accounting system.

Accounting file:

Input data of the data file is grouped into accounting files according to its nature. The Data type item defines the data nature (collection x payment).

HSO record - the header of accounting files:

Ser. no.	Name	min. length	max. length	List of contents	offset	Link	Note	if the assumption is not valid, errors occur in validated fields	error type
1.	Type of message	1	1	1	0			The header of an accounting file is missing	E
2.	Separator	1	1	space	1				
3.	Data type	4	4	1501 or 1502	2	6	1501=payments, 1502=collections	Invalid data type	E
4.	Separator	1	1	space	6				
5	Acc. file number	6	6	sssppp	7	2	sss must be within the range of files in UHL1 the specified number may only be imported successfully once in the current date ppp is not validated	1. The number is not within the range defined in UHL1 2. Duplicate file number within the date of creation	E E
6.	Separator	1	1	space	13				
7.	Prefix bank code	4	4	0100	14	9		Invalid bank code	E
8.	File sentinel	2	2	CRLF	18				

KSO end - end of accounting files:

Ser. no.	Name	min. length	max. length	List of contents	offset	Note	if the assumption is not valid, errors occur in validated fields	error type
1.	Type of message	1	1	5	0		The end of an accounting file is missing	E
2.	Separator	1	1	space	1			
3.	Plus sign	1	1	+	2		Invalid KSO format	E
4.	File sentinel	2	2	CRLF	3			

Group of items:

Accounting files are grouped into groups. Each group within an accounting file is separated by a header and end of the group. The amount specified in the group header must equal the sum total of individual items of the group. The due date specified in the header applies to the whole group. One accounting file may contain groups with various due dates. Due dates must not be over; they must not be more than 364 days in advance. The payer's account number will only be specified in the group header in groups of multiple orders (then it is not specified in actual orders). In groups of single orders, the Account number field can be skipped or filled with zeroes.

The header of a group of multiple orders consists of 4 fields.

The header of a group of single orders consists of 3 fields. (if the account number is filled with zeroes, then 4 fields)

HSK record - the header of a group of items:

Ser. no.	Name	min. length	max. length	List of contents	offset	link	Note	if the assumption is not valid, errors occur in validated fields	error type
1.	Type of message	1	1	2	0			The header of the group of items is missing	E
2.	Separator	1	1	space	2				
3.	Payer's account number	2	17	(mnnnnn- nnnnnnn nnn)nn ante- number - number	3	10	<ul style="list-style-type: none"> ■ the payer's account number for a group of multiple orders only (it is no longer specified in items) This field is not available in groups of single orders or it is filled with zeroes (n to 17n) ■ initial excess zeroes may but need not be added to the number It may contain the "-" separator		

							to separate the ante-number from the number. Both elements may but need not contain initial zeroes; however, they must not contain spaces. a) Only one hyphen can be used. b) Max. number of positions before the hyphen is 6. c) Max. number of positions after the hyphen is 10. d) Min. number of digits after the hyphen is 2. See the Validations table.	Invalid account	E
4.	Separator	1	1	space	5 to 20				
5	Sum total of individual items	1	14	(nnnnnnnnnnnnnn)n	6 to 21		The sum total in the group must equal this value.	The sum total in the group does not match the value in the group header.	E
6.	Separator	1	1	space	7 to 35				
7.	Due date	6	6	ddmmyy	8 to 36	4	Due date - ddmmyy See the Validations table.	Invalid format of the due date in HSK	E
8.	File sentinel	2	2	CRLF	14 to 42				

KSK end - the end of a group of items:

Ser. no.	Name	min. length	max. length	List of contents	offset	Note	if the assumption is not valid, errors occur in validated fields	error type
1.	Type of message	1	1	3	0		The end of the group of items is missing	E
2.	Separator	1	1	space	1			
3.	Plus sign	1	1	+	2		Invalid KSK format	E
4.	File sentinel	2	2	CRLF	3			

Payment

Imported files may contain single or multiple payment orders. The type (collection/payment) is defined in the header of accounting files; the type (single/multiple) is defined in groups of items. Due dates are also defined in groups of items.

Single payment orders have 5 to 7 fields: Debit account number, credit account number, amount, VS, CS, (SS), (AV).

Multiple payment orders have 4 to 6 fields: Credit account number for payments or debit acc. number for collections, amount, VS, CS, (SS), (AV). For detailed validations, see the Validation table in chapter 3.

Ser. no.	Name	min. length	max. length	List of contents	offset	link	Note	if the assumption is not valid, errors occur in validated fields	error type
1.	Debit account number	2	17	(nnnnnnnnnnnnnnnnnnnn)nn ante-number - number	0	10 (payment) 14 (collection)	<ul style="list-style-type: none"> ■ the payer's account number for an individual order only (unless it is specified in HSK). This field is not available for groups of multiple payments. ■ initial excess zeroes may but need not be added to the number It may contain the "--" separator to separate the ante-number from the number. Both elements may but need not contain initial zeroes. a) Only one hyphen can be used. b) Max. number of positions before the hyphen is 6. c) Max. number of positions after the hyphen is 10. d) Min. number of digits after the hyphen is 2. ■ See the Validations table. 	Invalid account	E

2.	Separator	1	1	space	2 to 17				
3.	Credit account number	2	17	(nnnnnnnnnnnnnnnn)nn ante-number - number	3 to 18	10 (payment) 14 (collection)	<ul style="list-style-type: none"> ■ If the separator (“-”) is used, the ante-number and the number may but need not contain initial zeroes ■ The number will be converted to a 16-byte numeric field and checked for the following: <ul style="list-style-type: none"> e) Only one hyphen can be used. f) Max. number of positions before the hyphen is 6. g) Max. number of positions after the hyphen is 10. h) Min. number of digits after the hyphen is 2. ■ See the Validations table. 	Invalid account	E
4.	Separator	1	1	space	5 to 35				
5	Amount	1	14	(nnnnnnnnnnnnnnnn)n	6 to 36	5	Excess zeroes may but need not be added. (however, they must not be replaced with spaces) the amount must not be zero See the Validations table.	Invalid amount	E
6.	Separator	1	1	space	7 to 50				E
7.	Variable symbol	1	10	(nnnnnnnnnn)n	8 to 51	11	Excess zeroes may but need not be added. (However, they must not be replaced with spaces.) If VS is not used, zero will be used instead.	VS missing	E
8.	Separator	1	1	space	9 to 61				E
9.	Constant symbol	8	10	(nnnnnnnnnnnnnnnnnnnn)	10 to 62	7, 13	Excess zeroes may but need not be added. (However, they must not be replaced with spaces.) Must not be 0. At least 8 positions are necessary, since the right-hand positions 5 - 8 represent the beneficiary's bank code.	The beneficiary's bank code is missing CS is missing	E
10.	Separator	1	1	space	18 to 72		If the SS does not follow, the separator need not be used.		E
11	Specific symbol	0	10	(nnnnnnnnnn)n	19 to 73	12	Excess zeroes may but need not be added. (However, they must not be replaced with spaces.) If the SS is not used, zero is used instead or the field is skipped.	Invalid SS	
12	Separator	1	1	space	19 to 83		If the AV does not follow, the separator will not be used.		E
13	AV field Message for beneficiary	0	146	AV: AV1 AV2 AV3 AV4	20 to 84		A text comment (for counterparty) that can be attached. It consists of 4 independent sub-fields of 35 chars each, separated by symbol (ASCII 124) The field starts with “AV:” constant. If a part of a sub-field is used only, the rest need not be used.		
14.	File sentinel	2	2	CRLF	20 to 230				

File example:

```

UHL1040601ZKUSEBNI KLIENT      1201509797100120
1 1501 100068 0100
2 00000005201 070102
1107160287 500005-2267100237 5201 1 0101000558
3 +
2 00000005201 070102
500005-2267120297 1107160287 5201 1 0901000558 2 AV:Payment for electricity -
January.|Invoice number 89aj456
3 +
5 +

```

Rules of detecting accounting fields according to the type of order
(multiple/single):

Number of validation (link)	The name in the format	The sequence of the field in records of the multiple order	The sequence of the field in simple order records	The rule used for validation
1	Date of code	2nd UHL1 field	2nd UHL1 field	1. valid date YYYYMMDD 2. equal to the current date
2	Acc. file number (sss)	3rd HSO field (positions 1-3)	3rd HSO field (positions 1-3)	sss must be within the range of files in UHL1 the specified number may only be imported successfully once in the current date remaining positions of this field (4-6) - ppp - are not validated
3	Payment sequential number	<i>is generated during IMPORT</i>		accounting file number + code date + payment sequential number must be unique and is returned in the electronic statement in the Document number.
4	Due date	the last HSK	the last HSK	1. valid date YYYYMMDD 2. not older than the current date 3. equal to the current date or up to + 364 days 4. must not be a holiday or calendar day off
5	Amount of payment	2nd Payment field	3rd Payment field	1. numeric 2. not zero
6	Data type	2nd HSO field	2nd HSO field	If 1501 then = payment; if 1502 then = collection
7	Constant symbol	4th Payment field	5th Payment field	Positions 7 - 10 (from the left) must not contain invalid CS. (see the information below the table for details)
8	AV field Message for beneficiary	5th or 6th Payment field (depends on existence of SS)	6th or 7th Payment field (depends on existence of SS)	Not validated; it is transferred for processing only in services offering the KM78,79 formats.
9	Prefix bank code	The last HSO field	The last HSO field	0100
10	Payer's account number	2nd HSK field	1st Payment field for payment 2nd Payment field for collection	1. numeric 2. modulo 11 3. is not 0 4. access rights 5. must not be equal to the contra-account, if it is within KB 6. Account status must be A (active); the type of account must be CK (current) or TD (term)
11	Variable symbol	3rd Payment field	4th Payment field	must be numeric
12	Specific symbol (optional field)	5th Payment field	6th Payment field	must be numeric
13	Contra-account bank code	4th Payment field	5th Payment field	Included in the library of banks
14	Contra-account number	1st Payment field	2nd Payment field for payment 1st Payment field for collection	1. numeric 2. modulo 11 3. is not 0

2.2 EXPORT - electronic statement

- Export is a form of electronic bank statement.
- The electronic statement contains:
 - **one turnover record** for an account and processing day; it includes the number of the statement, which is derived from numbering of daily statements upon movement from 2nd January 2002 (numbering is performed within the given year and will be set to zero at the turn of the year).
 - **N transactions** related to the specific account and processing day. Transactions in a statement are sorted by processing sequential numbers assigned during processing in the central system.
 - **Is sorted** by the Processing date, Type of record and Transaction serial number assigned during processing in the central system.
- Every transaction entered by IMPORT from a batch includes an **identification entered by the client** too. In the KM format, this is represented by the file number transferred to the input file (sss) and sequential number assigned during IMPORTing according to the order of the payment in the file (nnnnnn). This identification is returned to the client in the KM format in the Document number (positions sss 40-42, nnnnnn 43-48, aligned to the right with initial zeroes). The identification will only be returned if input consistency is maintained (the same format for both IMPORT and EXPORT). Otherwise, sss=000 and nnnnnn=sequential number assigned during processing in the KB central system will be used in these positions.
- The constant symbol in KM allows you to enter only 4 positions since information on the bank code is also transferred within KM. Therefore, you will receive the 4 last characters of CS defined as compulsory by ĚNB for some types of payments within the framework of GPC.
- Electronic statements = EXPORT can be created for every type of account (CK, SV, TD, PL, BL, CL and RL).
- Several processing days and several accounts can be marked and compression into a single file specified. In such a case, data are sequenced as follows:
 - **Processing date 1**
 - **Account 1**
 - turnover item
 - *n* transaction items
 - **Account 2**
 - turnover item
 - *n* transaction items
 - **Account *n***
 - turnover item
 - *n* transaction items
 - **Processing date 2**
 - **Account 1**
 - turnover item
 - *n* transaction items
 - **Account 2**
 - turnover item
 - *n* transaction items
 - **Account *n***
 - turnover item
 - *n* transaction items
 - **Processing date *n***
 - **Account 1**
 - turnover item
 - *n* transaction items
 - **Account 2**
 - turnover item
 - *n* transaction items
 - **Account *n***
 - turnover item
 - *n* transaction items

2.3 KM format - electronic statement

GPC file of fixed length, of the following structure:
account numbers are in the internal format, where:

Edit format

N1	N2	N3	N4	N5	N6	N7	N8	N9	N10	N11	N12	N13	N14	N15	N16
----	----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----

internal format

N16	N14	N15	N12	N7	N8	N9	N10	N11	N13	N1	N2	N3	N4	N5	N6
-----	-----	-----	-----	----	----	----	-----	-----	-----	----	----	----	----	----	----

The recipient of the medium can verify the KM content by, for example, performing the following checksums for individual records of the "75" type:

$$NB = OB - DT + CT,$$

$$DT = \text{sum of AMO with AC=1 or 4 (for AC=1 +, AC=4 -),}$$

$$CT = \text{sum of AMO with AC=2 or 5 (for AC=2 +, AC=5 -),}$$

where:

NB - new balance,

OB - old balance,

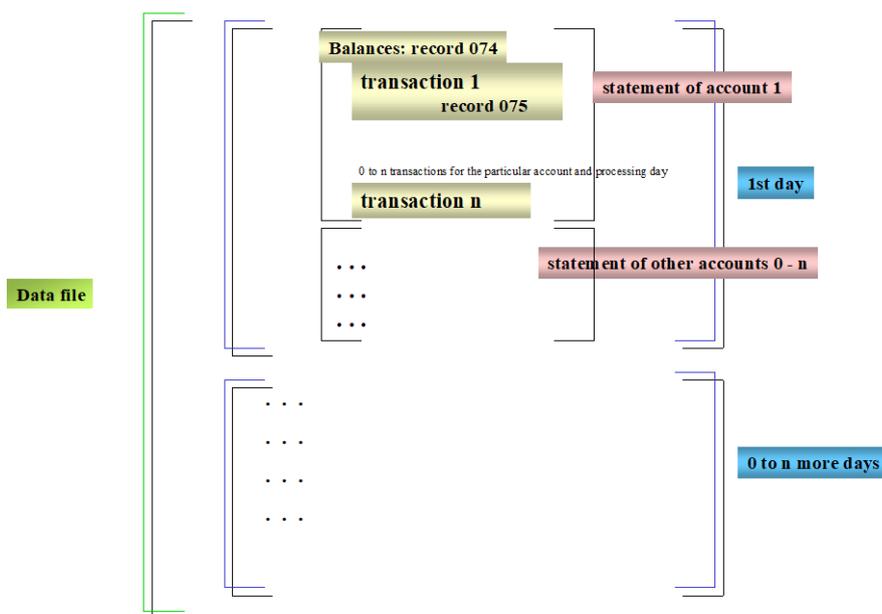
DT - debit turnovers,

CT - credit turnovers,

AMO - records of the type of "turnover entry in CZK"

AC - accounting code. 1 - debit entry, 2 - credit entry, 4 - debit entry cancellation (redebit), 5 - credit entry cancellation (recredit).

EXPORTING in the KM format



Turnover record = record 74

Ser	The name in the format	Length	Position	Type of field	constant
1.	Record type	3	1 - 3	Constant	074
2.	Client's account number	16	4 - 19	N(16)	16-character numeric field with account number in the internal format
3.	Abbrev. client's account name	20	20 - 39	A(20)	
4.	Date of the old balance	6	40 - 45	ddmmyy	ddmmyy format
5.	Old balance	14	46 - 59	N(14)	New balance - credit turnovers + debit turnovers
6.	Sign of the old balance	1	60 - 60	Constant	previous field > 0 = + < 0 = -
7.	New balance	14	61 - 74	N(14)	Current balance after night processing in the KB central system
8.	Sign of the new balance	1	75 - 75	Constant	previous field > 0 = + < 0 = -
9.	Debit turnovers	14	76 - 89	N(14)	Debit transactions - Debit cancellation transactions
10.	Sign of debit turnovers	1	90 - 90	Constant	previous field > 0 = 0 < 0 = -
11.	Credit turnovers	14	91 - 104	N(14)	Credit transactions - Credit cancellation transactions
12.	Sign of credit turnovers	1	105 - 105	Constant	previous field > 0 = 0 < 0 = -
13.	Statement serial number	3	106 - 108	NNN	serial number of the statement upon movement since the beginning of the year
14.	Accounting date	6	109 - 114	ddmmyy	Date of accounting (= Processing date) in the KB central system. ddmmyy format
15.	IBAN (the part before the actual account)	8	115 - 122		country code, modulo97, bank code
16.	DCS channel identification	2	123 - 124	Constant	If generated in PCB="PB", in DC="DC", in MB="MB"
17.	Filler	4	125 - 128		Spaces
18.	End field	2	129 - 130		CRLF

Transaction record = 75

Ser	The name in the format	Length	Type of field	Position	constant
1.	Record type	3	Constant	1 - 3	075
2.	Client's account number	16	N(16)	4-19	16-character numeric field with account number in the internal format
3.	Contra-account number	16	N(16)	20-35	16-character numeric field with account number in the internal format
4.	Document number (part 1)	4	NNNN	36-39	Enter date in the mmdd format
5.	Document number (part 2) for orders not entered in a batch by the client	3	Constant	40-42	000
5.	Document number (part 2) for orders entered in a batch by the client as KM - file number	3	NNN	40-42	the sss value entered in the imported KM
6.	Document number (part 3) for orders not entered in a batch by the client - DI number	6	NNNNN N	43-48	nnnnn - serial number assigned during processing in the central accounting system
6.	Document number (part 3) for orders entered by the client as KM - assigned sequential number during IMPORT	6	NNNNN N	43-48	nnnnn sequential number generated during IMPORT of the particular KM file
8.	Amount	12	N(12)	49-60	amount of payment in halers (two imaginary decimal positions)
9.	Accounting code	1	N	61-61	1=debit,2=credit,4=debit cancellation,5= credit cancellation
10.	Variable symbol	10	N(10)	62-71	
11.	Constant symbol	10	N(10)	72-81	

- Value is always 000000
- Data type is always 0203
- Deduction date contains Value_dt (i.e. due date of the payment)

VZP record = record 76

Se r.	The name in the format	Length	Type of field	constant
1.	Record type	3	Constant	076
2.	Filler	26		spaces
3.	Deduction date	6	ddmmyy	date of deduction of the amount in another financial institution, the DDMMYY format
4.	Comment	93	A(93)	AV field (the first 93 characters)
5.	CRLF	2		

File example:

```
0745000052267180257KLIENT TEST 9
26120100000485720324+00000485725525+000000000000000000000000052010001271201
075500005226718025700000011073402371227000000001000000005201200000000105010005
580000000001000000ADAMOVSKA STROJIRNY 00203271201
076                               271201
```