

# CFD and CFU Data Structure

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The data structure describes \*.CFD and \*.CFU files.

## 1. Basic rules

- The extension of a domestic payments file is always \*.CFD.
- The extension of an urgent domestic payments file is always \*.CFU.
- Payment files do not contain any headers.
- Each file can contain up to 999,999 payments (unless otherwise specified by the bank).
- Each payment starts with field "HD:" and ends with field "AV:".
- The file encoding is ANSI, the character set is CP 852 (Latin2).
- The file may contain uppercase letters only.
- The file must not contain empty rows (spaces are also considered empty rows).
- Payment files are formatted in fields and subfields.
- The subfield separator is a space (ASCII 32) - however, this does not apply to fields "DI:", "KI:" and "AV:", where the subfields are separated by <CR><LF> (Enter).
- The payment file ends with <CR><LF> (Enter).

### HD:11 and HD:01: outgoing payment

In the case of outgoing payments, field "UD:" contains information about the originator's account and field "DI:" contains the name and address of the originator. Field "UK:" contains information about the partner's account, and field "KI:" contains the partner's name.

### HD:32: direct debit

For direct debits, field "UD:" contains information about the partner's account and field "DI:" contains the name and address of the partner (direct debit payer). Field "UK:" contains information about the originator's account, and field "KI:" contains the name of the originator of the direct debit order.

#### Note:

Partner = beneficiary (outgoing payments) / payer (direct debits).

The file can contain outgoing payments and direct debits at the same time.

### Additional information for fields ZK:, AK: and EC:

These fields do not remove leading zeros, i.e. the values entered by the client in the application will be included in the output file as well. If the client manually enters or imports leading zeros before the number, they will be preserved (the import contains 00123, "00123" will be preserved in the output file).

If the client does not fill in or import any value, these fields will be automatically filled in by the banking system with zero (ZK:0 / EC:0 / AK:0).

### RF: field (Payment processing status)

Field "RF:", including subfield 1, must not be included unless it is supported by your bank and you have verified its use with your bank or Management Data Praha s.r.o. beforehand.

When using field "RF:", the value in the subfield for each outgoing payment must always be unique. This means that it must not be repeated. For import, the value of field "RF:" is ignored and completed by the application, see the description below.

Field "RF:" is generated in the output file automatically ONLY in MultiCash Classic version 3.2x or higher or MC Transfer version 3.2x or higher with the payment module, and ONLY when using the "Enable processing status" parameter in the supporting bank database.

If you are sending a file to a bank that supports field "RF:" directly, without import into the payment module, it must be generated by your information system in the format described below, provided that it must be ensured that the identifier for each outgoing payment is unique.

The content of field "RF:" is not forwarded to statements.

RF:	Field identification
M	Constant
CFD	Payment type (CFD,DFU)
I	Module I = CZI
YYYY	Year
MM	Month
DD	Day
hh	Hour
mm	Minute
ss	Second
nnnnnnnnn	Reference
aaaaaaaa	Code
CFD example	"RF:MCFDI2019030108571200000000500000000"
CFU example	"RF:MCFUI2019030108571200000000500000000"

## 2. Payment file structure

### Meanings of columns:

<b>Description</b>	Description of subfields
<b>R / O</b>	Required and optional fields
	<b>R</b> = required field
	<b>O</b> = optional field
	<b>R*</b> = conditionally required field (see the particular field note for more information)
<b>Format</b>	Field length and format
	<b>n</b> = numeric
	<b>a</b> = alphanumeric
	<b>d</b> = date field in YYMMDD format
	<b>f</b> = fixed field length
	<b>v</b> = variable field length
<b>Default value</b>	Where a field is not populated by the user, the specified default value will be used.
<b>Note</b>	Additional information

Field	Subfield	Description	R / O	Format	Default value	Note
HD:			<b>R</b>	<b>3 a f</b>		
	Subfield 1	Type of payment	R	2 n f		11 = Payment (*.cfd) 32 = Direct debit order (*.cfd) 01 = Urgent payment (*.cfu)
	Subfield 2	Payment due date	R	6 d f		Format: YYMMDD
	Subfield 3	Code of originator bank	R	7 a v		Four-digit bank code according to CNB
	Subfield 4	Serial number of payment in the file	R	6 n v		Serial number of payment in the file: 1 – 999999
	Subfield 5	Code of partner bank	R	7 a v		Four-digit bank code according to CNB
<CR><LF> <b>RF:</b>			<b>R*</b>	<b>3 a f</b>		* This field must not be included if your bank does not support it! (See description above.)
	Subfield 1	Payment processing status	R*	50 a v		* This subfield must not be included if your bank does not support it! (See description above.)
<CR><LF> <b>KC:</b>			<b>R</b>	<b>3 a f</b>		
	Subfield 1	Amount	R	15 n v		Amount including 2 decimal places – do not separate the decimal places with any character.
	Subfield 2	Fixed zero field	R	6 n f	000000	Fixed zero field
	Subfield 3	ISO currency code	R	3 a f	CZK	Always "CZK"
<CR><LF> <b>UD:</b>			<b>R</b>	<b>3 a f</b>		
	Subfield 1	Originator account prefix	R	6 n v	SP (space) ASCII DEC 32	If the account number does not include a prefix, one space will be filled here without a subfield separator between subfields 1 and 2 - see examples below.
	Subfield 2	Originator account number	R	10 n v		
	Subfield 3	Short identification of originator account	R*	20 a v		* Required only in case of HD:11 or HD:01 (HD: Subfield 1 = 11 or 01).
<CR><LF> <b>DI:</b>			<b>R</b>	<b>3 a f</b>		
	Subfield 1	Description of originator 1	R	35 a v		Originator name (account holder)
	<CR><LF> Subfield 2	Description of originator 2	O	35 a v		If the row contains a value, it must start with three spaces - see examples below.
	<CR><LF> Subfield 3	Description of originator 3	O	35 a v		If the row contains a value, it must start with three spaces - see examples below.
	<CR><LF> Subfield 4	Description of originator 4	O	35 a v		If the row contains a value, it must start with three spaces - see examples below.
<CR><LF> <b>UK:</b>			<b>R</b>	<b>3 a f</b>		
	Subfield 1	Partner account prefix	R	6 n v	SP (space) ASCII DEC 32	If the account number does not include a prefix, one space will be filled here without a subfield separator between subfields 1 and 2 - see examples below.
	Subfield 2	Partner account number	R	10 n v		
	Subfield 3	Short identification of partner account	R*	20 a v		* Required only in case of HD:32 (HD: Subfield 1 = 32).

<CR><LF> <b>AK:</b>			<b>R</b>	<b>3 a f</b>		
	<i>Subfield 1</i>	Specific symbol	O	10 n v	0	If SS is not populated, this field must contain a single zero.
<CR><LF> <b>KI:</b>			<b>R</b>	<b>3 a f</b>		
	<i>Subfield 1</i>	Partner description 1	R	35 a v		Beneficiary name
	<CR><LF> <i>Subfield 2</i>	Partner description 2	O	35 a v		If the row contains a value, it must start with three spaces - see examples below.
	<CR><LF> <i>Subfield 3</i>	Partner description 3	O	35 a v		If the row contains a value, it must start with three spaces - see examples below.
	<CR><LF> <i>Subfield 4</i>	Partner description 4	O	35 a v		If the row contains a value, it must start with three spaces - see examples below.
<CR><LF> <b>EC:</b>			<b>R</b>	<b>3 a f</b>		
	<i>Subfield 1</i>	Fixed symbol	O	4 n v	0	Unless a valid fixed symbol is entered, this field must contain a single zero. <b>The following fixed symbols are admissible by CNB: 0002, 0005, 0006, 0051, 0498, 0598, 0898, 1178, 2178, 3178, 4444.</b> A list of valid fixed symbols is available on the CNB website.
<CR><LF> <b>ZK:</b>			<b>R</b>	<b>3 a f</b>		
	<i>Subfield 1</i>	Variable symbol	O	10 n v	0	If VS is not populated, this field must contain a single zero.
<CR><LF> <b>AV:</b>			<b>R</b>	<b>3 a f</b>		
	<i>Subfield 1</i>	Purpose of payment 1	O	35 a v		
	<CR><LF> <i>Subfield 2</i>	Purpose of payment 2	O	35 a v		If the row contains a value, it must start with three spaces - see examples below.
	<CR><LF> <i>Subfield 3</i>	Purpose of payment 3	O	35 a v		If the row contains a value, it must start with three spaces - see examples below.
	<CR><LF> <i>Subfield 4</i>	Purpose of payment 4	O	35 a v		If the row contains a value, it must start with three spaces - see examples below.
<CR><LF> <b>S1:</b>			<b>R</b>	<b>3 a f</b>		<b>For *.CFD files only</b>
	<i>Subfield 1</i>	Number of outgoing payments contained in the file	R	9 n f		Number aligned from the right, filled with leading zeros
	<i>Subfield 2</i>	Total amount of payments	R	15 n v	000	Amount including 2 decimal places - do not separate the decimal places with any character. If no value is filled in, this subfield must contain three zeros.
<CR><LF> <b>S3:</b>			<b>R</b>	<b>3 a f</b>		<b>For *.CFD files only</b>
	<i>Subfield 1</i>	Number of direct debit orders contained in the file	R	9 n f		Number aligned from the right, filled with leading zeros
	<i>Subfield 2</i>	Total amount of direct debits	R	15 n v	000	Amount including 2 decimal places - do not separate the decimal places with any character. If no value is filled in, this subfield must contain three zeros.
<CR><LF> <b>S0:</b>			<b>R</b>	<b>3 a f</b>		<b>For *.CFU files only</b>
	<i>Subfield 1</i>	Number of urgent outgoing payments contained in the file	R	9 n f		Number aligned from the right, filled with leading zeros
	<i>Subfield 2</i>	Total amount of urgent outgoing payments	R	15 n v	000	Amount including 2 decimal places - do not separate the decimal places with any character. If no value is filled in, this subfield must contain three zeros.
<CR><LF> <b>S4:</b>			<b>R</b>	<b>3 a f</b>		<b>For *.CFU files only</b>
	<i>Subfield 1</i>		R	9 n f	00000000	Fixed zero field
	<i>Subfield 2</i>		R	3 n f	000	Fixed zero field
<CR><LF>			R			End of file

### 3. Examples of outgoing payments and a direct debit order

In the examples below, " | " represents a space.

**Example of an outgoing payment:**

HD:11|190301|5500|1|0300  
 KC:4005006000|000000|CZK  
 UD:100001|2222222222|ACCOUNT-DESCRIPTION  
 DI:ORIGINATOR-NAME-1  
 |||ORIGINATOR-DESCRIPTION-2  
 |||ORIGINATOR-DESCRIPTION-3  
 |||ORIGINATOR-DESCRIPTION-4  
 UK:|7777777777|BENEFICIARY-SHORT-DESCRIPTION  
 AK:0  
 KI:BENEFICIARY-NAME-1  
 |||BENEFICIARY-DESCRIPTION-2  
 |||BENEFICIARY-DESCRIPTION-3  
 |||BENEFICIARY-DESCRIPTION-4  
 EC:0  
 ZK:1122334455  
 AV:PAYMENT-PURPOSE-1  
 |||PAYMENT-PURPOSE-2  
 |||PAYMENT-PURPOSE-3  
 |||PAYMENT-PURPOSE-4  
 S1:000000001|4005006000  
 S3:000000000|000

**Example of direct debit order:**

HD:32|190301|5500|1|0300  
 KC:4005006000|000000|CZK  
 UD:|7777777777|BENEFICIARY-SHORT-DESCRIPTION  
 DI:BENEFICIARY-NAME-1  
 |||BENEFICIARY-DESCRIPTION-2  
 |||BENEFICIARY-DESCRIPTION-3  
 |||BENEFICIARY-DESCRIPTION-4  
 UK:100001|2222222222|ACCOUNT-DESCRIPTION  
 AK:0  
 KI:ORIGINATOR-NAME-1  
 |||ORIGINATOR-DESCRIPTION-2  
 |||ORIGINATOR-DESCRIPTION-3  
 |||ORIGINATOR-DESCRIPTION-4  
 EC:0  
 ZK:1122334455  
 AV:PAYMENT-PURPOSE-1  
 |||PAYMENT-PURPOSE-2  
 |||PAYMENT-PURPOSE-3  
 |||PAYMENT-PURPOSE-4  
 S1:000000000|000  
 S3:000000001|4005006000

**Example of urgent payment:**

HD:01|190301|5500|1|0300  
 KC:4005006000|000000|CZK  
 UD:100001|2222222222|ACCOUNT-DESCRIPTION  
 DI:ORIGINATOR-NAME-1  
 UK:|7777777777|BENEFICIARY-SHORT-DESCRIPTION  
 AK:0  
 KI:BENEFICIARY-NAME-1  
 EC:0  
 ZK:0  
 AV:PAYMENT-PURPOSE-1  
 S0:000000001|4005006000  
 S4:000000000|000

**File containing multiple payments:**

HD:01|190301|5500|1|0300  
 ...  
 AV:PAYMENT-PURPOSE  
 HD:01|190302|5500|2|0100  
 KC:4005006000|000000|CZK  
 UD:100001|2222222222|ACCOUNT-DESCRIPTION  
 ...  
 AV:PAYMENT-PURPOSE  
 HD:01|190302|5500|3|0800  
 ...  
 AV:PAYMENT-PURPOSE

**Example of field UD: with prefix:**

UD:100001|2222222222|ACCOUNT-DESCRIPTION

**Example of field UK: with prefix:**

UK:19|7777777777|BENEFICIARY-SHORT-DESCRIPTION

**Example of field UD: without prefix:**

UD:|2222222222|ACCOUNT-DESCRIPTION

Example of field UK: without prefix:

UK:|7777777777|BENEFICIARY-SHORT-DESCRIPTION

**Example of payment with processing status:**

HD:11|190301|5500|1|0300  
 RF:MCFDI2019020611035700000000100000000  
 KC:4005006000|000000|CZK  
 UD:100001|2222222222|ACCOUNT-DESCRIPTION  
 DI:ORIGINATOR-NAME-1  
 UK:|7777777777|BENEFICIARY-SHORT-DESCRIPTION  
 AK:0  
 KI:BENEFICIARY-NAME-1  
 EC:0  
 ZK:0  
 AV:PAYMENT-PURPOSE-1  
 S1:000000001|4005006000  
 S3:000000000|000

**Example of outgoing payment including line break characters:**

HD: 11 190301 5500 1 0300CRLF  
KC: 4005006000 000000 CZKCRLF  
UD: 100001 2222222222 POPIS UCTUCRLF  
DI: ORDERING PARTY NAME 1CRLF  
ORDERING PARTY NAME 2CRLF  
ORDERING PARTY NAME 3CRLF  
ORDERING PARTY NAME 4CRLF  
UK: 7777777777 SHORT PARTNER DESCRICRLF  
AK: 0CRLF  
KI: PARTNER NAME 1CRLF  
PARTNER NAME 2CRLF  
PARTNER NAME 3CRLF  
PARTNER NAME 4CRLF  
EC: 0CRLF  
ZK: 0CRLF  
AV: PAYMENT DETAILS 1CRLF  
PAYMENT DETAILS 2CRLF  
PAYMENT DETAILS 3CRLF  
PAYMENT DETAILS 4CRLF  
S1: 000000001 4005006000CRLF  
S3: 0000000000 000CRLF