



MetaLINK – V. 2

Programmer's Guide

Edition . – **Serbia**

R.7.4.158

2009-09-01

Srbija (.RS), Crna Gora (.ME), Makedonija (.MK),
Republika Srpska (.BA) , Bugarska (.BG), Hrvatska (.HR)

Serbia (SRB), Montenegro (MNE), Macedonia (MKD)
Republika Srpska (BIH), Bulgaria (BLG), Croatia (HRV)

You can have RETAIL STORES
in many countries in SEE region

using only one POS solution

and SAVE money and effort.

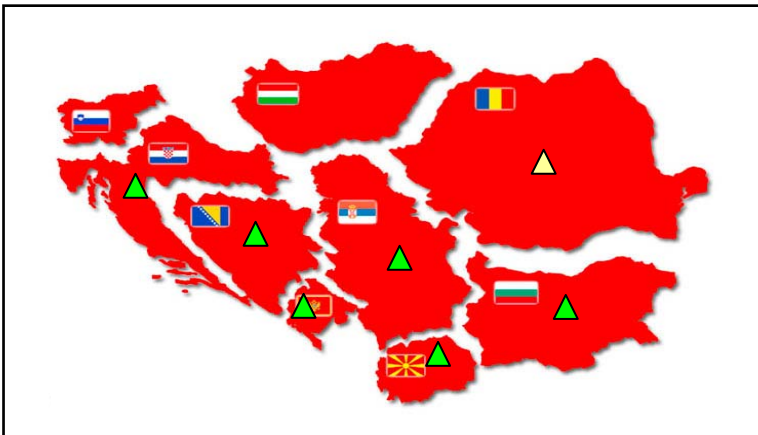
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send to: SRB – 11070 Novi Beograd
Bul. M. Pupina 10/Z pp 22



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Introduction

Who is this program meant for?

MetaLINK is a program meant for programmer who have their own POS – KASA solution, and who wish to integrate this in fiscal solution on the SEE market with minimal effort, while keeping their existing technology – work process.

MetaLINK program is like middleware - between:

A. Your existing »POS - KASA« solutions related to retail
(for example: Shops, Supermarkets, footwear, sportswear, car spare parts, hospitality, drugstores and similar with

B. Fiscal printer FP-550

country	mark	manufacturer	place
in Serbia	(AG)	Galeb Group	Šabac
in Montenegro	(VG)	VG Servis	Podgorica
in Macedonia	(AC)	Accent	Skopje
in Rep. Srpska	(KA)	Galeb Group	Bijeljina
in Bulgaria	(DT)	Datecs	Sofia

At the Point-of-Sale (POS) beside Your Program for retail (so called »KASA«), you also need to install **MetaLINK** program.

Those two programmes work simultaneously and synchronously (**MetaLINK** in background).

For end-users **Meta LINK** is invisible, and they did not change their everyday work. Also **MetaLINK** does diagnostics and AUTOMATICALLY resolves the following problems:

- lack of paper on bon and journal tape,
- non synchronized database
- lack of communication and

brings again FP-550 in full functional stage.

MetaLINK V7.4.xxx guaranties to you that every ABC_nnn.DAT that you send will be printed i.e. fiscalized, if all the articles it contains are in order.

We make the jobs of cashiers, managers, tax authority easier by additional program **MetaLINK**-Menu. All necessary reports for Tax Authority, Managers, and Administrators are included.

All proposals, suggestions, questions please send on e-mail:
fiskal@metadata.rs

Concept of programme

Program concept is based on sending ONLY ONE FILE, with all needed information related to fiscal receipt.

Concept is based in a way that programmer DOES NOT NEED TO WORRY about printer status.

Programmer sends

ONLY ONE FILE (ABC_nnn.DAT),

with:

- A. What you want to sale – **A**rticles,
- B. Quantity an Prices – **B**on, and
- C. Way of payments – **C**ash

WE GUARANTY

that EVERY sent receipt (ABC_nnn.dat)

will be fiscalized in the following condition:

- lack of power on PC,
- lack of communication with FP-550
- lack of paper on receipt or journal tape

In which countries you can use it?

Country	Model	Name of product	Remarks
SRB – Serbia	FP-550	MetaLINK	
MNE – Montenegro	VG-550	MetaLINK-ME	
MKD – Macedonia	PF-550	MetaLINK-MK	
RS – Rep. Srpska	FP-550 Plus	FisLINK	MANDATORY
BLG – Bulgaria	FP-550T	MetaLINK-BG	
HRV – Croatia	TMU-210	MetaLINK-HR	EMULATOR
BIH - Bosnia and Herzegovina		MetaLINK-BA	planned
ROU - Romania		MetaLINK-RO	In development
ALB - Albania		MetaLINK-AL	planned
UKR - Ukraine		MetaLINK-UA	planned

We are ready to help you to modify your solution to specific country requirements.

Minimal requirements

FP-550: with Baud rate = 19.200 , connected to ComPort= 1 to 8.

O.S. - Operating System:

Windows 98**SE**, NT, 2000, XP, Vista

+ Regional Setting :

Decimal symbol is - **(POINT)**,

Digit Grouping symbol is - **(COMMA)**

Processor: Pentium II on 300 MHz or higher

Memory: 64 MB or higher (we recommend 128 MB)

Hard Disk: 1,0 GB free space

COM Port: one free (SW works on 19.200 bauds).

VGA resolution: min 800 x 640, minimum 256 colour (recommend 1024 x 768)

VGA monitor: Monochrome 9 inch, Colour 14 inch or higher

CD drive: (for installation only).

Cooler: the best quality

UPS – uninterrupted power supply: (recommended)

Data exchange

Exchange formats

We support the following formats:

CSV - Comma Separated Value

is a standard format for data exchange,

used mostly for data export / import in EXCEL and other program for tables manipulation.

All known RDBS (databases) Oracle, SQL Server, Sybase, Informix, Posgres, Interbase, My SQL can export / import data using this format.

Characteristics of this format is that EVERY TWO PIECES OF DATA are separated by comma (,) and A PIECE OF DATA is placed between quotation marks (").

DBF – dBase III format

is a standard format for data exchange,

used mostly by programming language like dBASE, FoxBase, Visual Fox, Clipper, Alaska ...

TXT – fixed width data format

is a standard format for data exchange,

used mostly by programming language like COBOL, FORTRAN...

XML – eXtended Markup Language

is a standard format for data exchange of the latest generation

used mostly by programming languages like C++, Java, C#, .NET...

DAT - Format

is »non-existing format«. We use this throughout documentation as »generic name« for one of four mentioned formats. Instead of CSV, DBF, TXT, XML we will use DAT.

We prepare samples - examples to make you easier to do necessary conversion of data (number of fields, length, type of data) you should send to **MetaLINK** program.

Samples

SAMPLES

of all input and output files in all supported formats

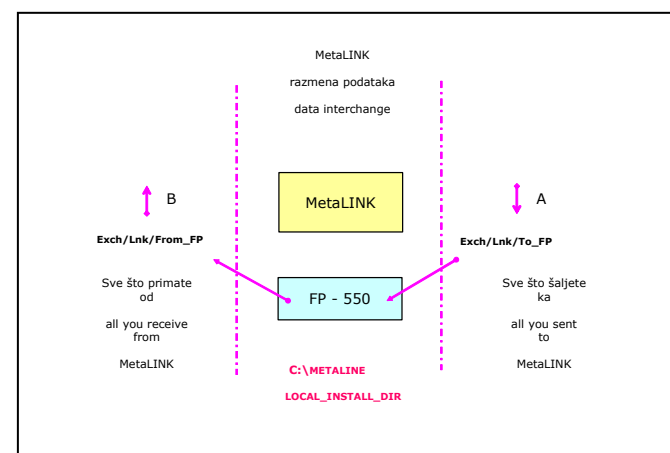
Primeri_MetaLINK_Input_v7.zip i

Primeri_MetaLINK_Output_v7.zip.

you can get from URL:

<http://www.metadata.eu.com>

/MetaLINK/MetaLINK_SRB/



Data flow

Your programme and program **MetaLINK** communicate using folders:

==> C:/METALINE/EXCH/LNK/TO_FP

(everything sent to METALINE LINK,

i.e. All you send, so called. »Input folder«)

<== C:/METALINE/EXCH/LNK/FROM_FP

(everything is sent to Your programm,

i.e. All you receive, so called »Output folder«)

Sequence of sending / receiving

Program **MetaLINK** executes command files in increasing sequence of numbers NNNN. Otherwise, if from any reason **MetaLINK** in folder C:/METALINE/EXCH/LNK/TO_FP finds more files with the same name and different sequence number, he will execute in increasing sequence NNNN (low to high).

First ABC_101.DAT, then ABC_102.DAT, then ABC_103.DAT

First CMD_001.DAT, then CMD_002.DAT

First TXT_001.DAT, then TXT_002.DAT

You should ensure that that same sequence will not repeat at least during the same day.

Remarks:

Programmer is not obliged (if he finds it difficult) to send always increasing number. He can send always the same file XXX_0000.DAT under condition that he makes sure that he previously received an answer (positive .OK or negative .ERR) and does not send another file of the same type until **MetaLINK** programme has processed (deleted from the Input folder) the old file of the same type.

Programmer **IS OBLIGED TO DELETE** from the »Output folder« C:/METALINE/EXCH/LNK/FROM_FP files which are returned by **MetaLINK** as a proof of successful / unsuccessful execution.

We recommend doing this at least once a day either on beginning or at end.

Programmer **CAN NOT CREATE** files in »Input folder« C:/METALINE/EXCH/LNK/TO_FP, because it will make a conflict with programme **MetaLINK**.

He must create a file in some other folder (for example C:/TEMP) and then »COPY« in folder C:/METALINE/EXCH/LNK/TO_FP.

When program **MetaLINK** »recognizes« some file in the »Input folder«, it will try to »open it exclusively«, if changed 2009-09-04 13:30

it succeeds it will take it into processing, and after processing it will delete it. If it fails to open it (because your programme »holds it«), he will not process it.

Files that are »Read Only« WILL NEVER be processed.

Changes needed in your program

To make whole solution (Your POS programme + **MetaLINK** + Fiscal printer) work as one, you need to do the following:

When you generate a fiscal receipt in your programme, you need to create in some of your folder file ABC_nnn.DAT, according to a defined format, and copy it to

»Input folder« C:/METALINE/EXCH/LNK/TO_FP.

Your programme should wait some time (seconds) to receive return information (positive or negative in »Output folder« C:/METALINE/EXCH/LNK/FROM_FP. We guaranty that we will send an answer: .OK or .ERR

Remarks:

You do not need to send new articles, because **MetaLINK** will recognize them automatically in ABC_nnn.DAT and add (load them) in FP-550 as necessary.

You do not need to send new prices, because **MetaLINK** will recognize them automatically in ABC_nnn.DAT and add (load) in FP-550 as necessary.

Chapter 02
BON, Commands

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Table ART-N_nnn.DAT - New articles
Table ART-R_nnn.DAT - Updated articles
Table ART-D_nnn.DAT - Deleted articles

BON

All that is needed for fiscal Receipt is in file ABC_NNN.DAT, with unique name ABC_nnn. (CSV, DBF, TXT, XML), and according to a format (ABC_nnn.DAT).

Remarks:

Articles within ABC_nnn.DAT NEED **NOT BE SENT** to Fiscal printer FP-550.

MetaLINE LINK will recognize:
if the sold articles are still in FP-550.

If they are not,
program will »add – load« them in FP-550,

If they are,
program will check the price, and if necessary change a retail price.

Table ABC_nnn.DAT

All numerical data of type NUMERIC (NN,n) are entered in the field as NNNNN.NN i.e. with decimal point (regardless of regional settings).

Attributes marked as »NOT NULL« are mandatory.

ART_ID	VARCHAR(20)	NOT NULL
TAX_ID	VARCHAR(1)	NOT NULL
PLU_NAZIV	VARCHAR(40)	NOT NULL
CENA	NUMERIC(10,2)	NOT NULL
KOLICINA	NUMERIC(10,3)	NOT NULL

Attributes description:

ART_ID VARCHAR(20) NOT NULL (mandatory)
Article ID in your program.

TAX_ID VARCHAR(1) NOT NULL (mandatory)
Tax ID of article.
(0-A, 1-G, 2-D, 3-D, 4-E, 5-Ž, 6-I, 7-J, 8-K)

Programmer enters figures (0 – 8), and programme convert them into Cyrillic letters.

Remarks:

Remarks:

In Serbia starting from 1.1.2005 for companies which **ARE** in VAT system according to the Law:

(0 – A) not used, **(1 – G) free of tax**, (2 – D) not used,
(3 – Đ) higher tax 18%, (4 – E) lower tax 8%, (5 – Ž) not used,
(6 – I) not used, (7 – J) not used, (8 – K) not used.

From 1.1.2005 for entrepreneurs which **ARE NOT** in VAT system According to the Law:

(0 – A) is not in VAT system 0%,
(1 – G) not used, (2 – D) not used, (3 – Đ) not used,
(4 – E) not used, (5 – Ž) not used, (6 – I) not used,
(7 – J) not used, (8 – K) not used

Fiscal law preciously defines which goods, or services belong to which Tax group.

PLU_NAZIV VARCHAR(40) NOT NULL (mandatory)

Article name in fiscal printer (including units of measure, packing ...).

Remarks:

Name MUST NOT exceeds 32 Ch although field is longer.

Name CAN NOT CONTAIN Signs like (, " ' `)
COMMA, QUOTATION, APOSTROPHE, GRAVE ACCENT.

Name CAN NOT CONTAIN LETTERS, (ŠĐČŽšđčž) - OUR LATINIC LETTERS.

PLU_NAZIV ARTICLE_NAME must be UNIQUE,

i.e. CAN NOT BE REPEATED on two or more articles

Firmware – system program in Fiscal printer does check for uniqueness consistency in the following way:

from Name first deletes leading and trailing spaces, then suppresses multiple spaces in the middle with single space and check if the name is unique. If the names like this exist, it refuses this article.

CENA NUMERIC(10,2) NOT NULL (mandatory)

Retail price (including VAT).

Remarks: Max. allowed prices is 999999.99 an must be > 0.00

KOLICINA NUMERIC(10,3) NOT NULL (mandatory)

Sold, Refund quantity. **Quantity CAN BE negative. !!! (depending of country)**

Valid format for quantity are:

	TXT	DBF
	1234567890	1234567890
NNNNN	12345	12345.000
NNN,N	123.4	123.400
NN,NN	12.34	12.340
N,NNN	0.123	1.234

Refund Items with negative quantities, but exactly the same as positive quantities, are allowed within ABC_nnn.dat.

For sale:

1. Chocolate 3 pieces
2. Chocolate 1 piece

It is not allowed!!!

3. Chocolate -2 pieces !!! or
4. Chocolate -4 pieces !!!

For sale:

1. Chocolate 3 pieces
2. Chocolate 1 piece

It is allowed!!!

3. Chocolate -1 piece !!!
4. Chocolate -3 pieces !!!

IF you sent illegal refund item (with inappropriate negative quantity),
Fiscal printer will refuse THE WHOLE RECEIPT.

Samples

ART_ID	TAX_ID	PLU_NAZIV	PRICE	QUANTITY
1000	3	NAZIV 1000	100.00	12345.000
2000	3	NAZIV 2000	150.00	123.400
3000	3	NAZIV 3000	200.00	12.340
4000	3	NAZIV 4000	250.00	1.234
5000	4	NAZIV 5000	300.00	0.123
6000	4	NAZIV 6000	400.00	1.000
KRAJBONA	1	KRAJBONA	1.00	0
PAY_1	1	PLATI CEKOM	200.00	0
PAY_2	1	PLATI KARTICOM	300.00	0
PAY_3	1	PLATI GOTOVINOM	900.00	0
USR_ID	1	»SIFRA KASIRA« < 4 CH	1.00	0
USR_NAME	1	»IME KASIRA« < 25 CH	1.00	0
CMD159	1	»4. RED FUTERA« < 32 CH	1.00	0
CARD_ID	1	»BROJ KARTICE« < 20 CH	1.00	0

Remarks:
CENA is retail price included VAT,
KOLICINA is sold quantity (negative quantity indicates refund),
in ABC-nnn.DAT you can have (after KRAJBONA) only clauses as describe.
Please do not confuse CMD159 in a field ART_ID with standard command in CMD-nnn.DAT file.

KRAJBONA is MANDATORY clause
denoting »there are no more items«.

OPTIONAL ROWS:

Any row after KRAJBONA is optional!

Some may exists other may not, but if it exists it must appear in shown sequence.

For example: IT IS NOT ALLOWED first PAY_2, than PAY_1.

PAY_1, PAY_2, PAY_3 are amount of payments (if the bill is paid using different ways of payment).

If the total amount PAY_1, PAY_2, PAY_3 is less than Bill amount,
the rest will be paid in cash.

If the total sum of PAY_1, PAY_2, PAY_3 is greater than Bill amount,
programme will use amounts starting first PAY_1, than PAY_2, than PAY_3
until total of Bill is reached.

In fields marked with quotations »xxxx« enter corresponding data.

Process and answers

Programme analyzes ABC_nnn.DAT file and

If the file's syntax in NOT correct, it will return it

to folder: C:/METALINE/EXCH/LNK/FROM_FP as ABC_nnn.ERR

If the file's syntax is correct,

Programme will send first command CMD159, to change 4th row of footer
then USR_ID, USR_NAME,

Sends New articles and/or price changes (if needed) in Fiscal printer,
sends BON with articles sold,
pay BON according to the specification,

close a Bill and open a cash drawer.

Programme METALINE LINK sends back MANDATORY response (to your programme)
as an answer to every received file,

(if ok - OK, in not ok - ERR).

Program METALINE LINK accept ABC_nnn.DAT, does logical check, and

Folder	If OK	If not OK
	Sends new articles into FP	
	Sends price changes into FP	
	Sends other data into FP	
/TO_FP	Deletes the file	
/FROM_FP	Returns ABC_nnnn.OK	Returns ABC_nnnn.ERR

Files ABC_nnn.OK and/or ABC_nnn.ERR are textual data.

Programme returns file ABC_nnn.OK if everything is OK,
and file ABC_nnn.ERR if there are some errors.

Within a file ABC_nnn.ERR are textual error description.

Content of file ABC_nnn.OK is
«Iznos fiskalnog isečka» »Total Bill amount«
sample: 1020.50, BrojFiskalnogIsečka *

* BrojFiskalnogIsečka is returned only in Rep. Srpska
There is a special manual which defines how to return goods (from end-user) so called NI forms.

Remarks: See country specific for Customer claims, Refund Bill, etc...

COMM.ERR – Interrupted Communication

If during input file processing
(ABC_nnn.DAT, CMD_nnn.DAT, TXT_nnn.DAT)

communication with FP-550 gets interrupted (no response)
(power interrupt, customer display gets disconnected ...),
immediately after detecting the break, programme returns a file COMM_nnn.ERR containing error
description, simultaneously displaying this messages on screen for cashier's information

After that program MetaLINK will automatically shutdown.

We recommend than after receiving COMM.ERR messages, you immediately inform cashier and stop
executing of Your KASA programme.

After starting MetaLINK again, programme will continue with processing of input files and send responses.
(.ERR or .OK).

Remarks: All messages which appear in COMM.ERR file are sent automatically to LINK_LOG.txt, too.

NOPAPER.ERR – No paper on bon and/or journal tape

if during input file processing:
ABC_nnn.DAT, CMD_nnn.DAT, TXT_nnn.DAT

there is a lack of paper on bon or journal tape
immediately after detecting lack of paper, program returns file NOPAPER.ERR containing date and time,
simultaneously displaying this message on screen for cashier's information.

After paper tape is change (it make take a few seconds to a few minutes) program MetaLINK will continue
with processing and send responses ABC_nnn.OK or ABC_nnn.ERR.

We recommend do not take any action regarding this message from your programme, but to simply delete a
message from folder. This message only means that you have to wait for a while until you get an »expected
message« - confirmation of succesfull/unsuccesfull processing of ABC_nnn.DAT file.

Remarks: In the folder there will always be only one file NOPAPER.ERR and next file will overwrite existing
one (only date and time within a file will change).

Remarks: All messages written in NOPAPER.ERR file are automatically written in LINK_LOG.txt, too.

Commands

Beside Fiscal Receipt (before or after sending) end-user can send some additional commands i.e.
CMD_nnn.DAT file.

Mostly used commands are:

Show on customer display information regarding article, at the time you scan this article.
Sending deposit in, deposit out on start or end of the shift.
Printing current status, daily report, monthly report, periodical report.

Remarks:

MetaLINE LINK besides »listening« to your files,
has an additional MetaLINE LINK-Menu (independent program) used for send different commands.
So it is not necessary to »do programming« and calling command, end-user can simply execute them using
this programme.

This is new from version MetaLINE LINK v7.4 (basic programme »only listens«
and additional programme MetaLINE LINK-Menu v7.4 (executes commands). In earlier version this was part
of administration...

Please read MetaLINK-Menu Users Guide.PDF.

When works MetaLINE LINK v7.4 is active in SysTray
(instead of Tollbar) and

is more robust, reliable and resists breaks better

Table CMD_nnn.DAT

KOMANDA VARCHAR(3) NOT NULL
TEKST VARCHAR(40) NOT NULL

KOMANDA VARCHAR(3) NOT NULL (mandatory),
Command ID.

TEKST VARCHAR(40) NOT NULL, (mandatory) **max. allowed 30 CH**

Remarks !

In one table – „sending“ you can send many commands,
one by one.

Commands can be send before or after ABC_nnn.DAT

150	some text	Change text in 1. line of header (of 6 lines)
151	some text	Change text in 2. line of header (of 6 lines)
152	some text	Change text in 3. line of header (of 6 lines)
153	some text	Change text in 4. line of header (of 6 lines)
154	some text	Change text in 5. line of header (of 6 lines)
155	some text	Change text in 6. line of header (of 6 lines)
156	some text	Change text in 1. line of footer (of 4 lines)
157	some text	Change text in 2. line of footer (of 4 lines)
158	some text	Change text in 3. line of footer (of 4 lines)
159	some text	Change text in 4. line of footer (of 4 lines)

Remarks !

Commands 150 – 155, do not use until you have agreement
with Tax Authority.

In some countries you can use only two rows of FOOTER (BLG).

	Show text in upper display row up to 20 ch	
10	some text	
	Show text in lower display row up to 20 ch	
20	some text	
	Open a cash drawer (automatically at the Bill end)	
30	NO PARAM	
	Deposit in (od 200.00)	
50	200	
	Deposit out (od 100.00)	
60	100	
	Send sound signal – Beep	
70	NO PARAM	
	Print (X report) Current Status	
80	NO PARAM	
	Print (Z report) i.e. close a day	
90	NO PARAM	
	Print periodical report DDMMYY-DDMMYY	
100	DDMMYY-DDMMYY	
	Print articles sold in a day	
200	NO PARAM	
	Print articles sold in a day (MNE)	
205	NO PARAM	
	Print duplicate of the last Bill (MNE, BLG)	
210	NO PARAM	
	Delete all articles from DB and FP	
140	NO PARAM	
	returns file F-300.ok with data needed for certification	
300	NO PARAM	
	Print all Tax group changes	
295	NO PARAM	

FISKALIZOVAN (Fiscalized)	/ or NEFISKALIZOVAN (Not fiscalized)
"1.50SR 26JUL2004 1000, BA46"	/ firmware version
2005-03-30 09:11:17	/ date and time from FP
010110000	/ Tax group set AGDĐEŽIJK
123450	/ IBFM , i.e. AG number
123456789	/ VAT number
100	/ # of articles in FP
100	/ # of articles in DB
ZATVOREN (Day Closed)	/or OTVOREN – OPEN (Day Open)

OTHER COMMANDS (changing Vat system,)

280 Enter in VAT system (1-G=0%, 3-D=18%, 4-E=8%)
290 Exit from VAT system (0-A=0%)
295

If you wish, from your programme, you can send name, price, and quantity on customer display, in file CMD_1.DAT (commands 10 and 20).

Samples

10, shown in upper row on display
20, shown in lower row on display

Process and answers

Your programme sends files: CMD_00000.(CSV, DBF, TXT, XML).
According to the format (CMD_nnn.DAT).

folder	If OK	If not OK
	Read command row by row	
	Execute commands row by row	
In /TO_FP	Delete a file	Delete a file
in /FROM_FP returns	CMD_nnn.OK	CMD_nnn.ERR

Files .OK and/or .ERR contain only textual data
Program returns file CMD_nnn.OK if OK,
and file CMD_nnn.ERR if there are some errors.

File CMD_nnn.ERR contains textual error description.

Remarks !!!

Usage of FP-550 in Status=NEFISKALIZOVAN, IS AGAINST THE LAW !,

IT SHOULD BE USED ONLY FOR TESTING AND DEVELOPING
APPLICATION.

Nonfiscal text

Intro

Sending nonfiscal text is mostly used for printing kitchen orders.
Also is used for printing special vouchers, original invoices, new big sale announcements, opening hours for the holidays and similar.
In some countries (see differences per countries) IT IS NOT ALLOWED to send nonfiscal text to the FP.

Table TXT_nnn.DAT

TEKST VARCHAR(40) NOT NULL

ATTRIBUTE DESCRIPTION:

TEKST VARCHAR(40) NOT NULL, , (mandatory)
One row of text printed as nonfiscal text

Remarks:

Line of text is limited to 32 CH.
Text (letters and number) will be printed exactly as entered (left justified).
You can send many rows of text at ones

Process and answers

Your programme sends file: TXT_nnn.(CSV, DBF, TXT, XML).
According to the format (TXT_nnn.DAT).

Folder	If OK	If not OK
	Open nonfiscal text	
	Print row by row	
	Close nonfiscal text	
in /TO_FP	Delete a file	Delete a file
in /FROM_FP returns	TXT_nnnn.OK	TXT_nnnn.ERR

Files .OK and/or .ERR contain only textual data
Program returns file TXT_nnn.OK if OK,
and file CMD_nnn.ERR if there are some errors.

File TXT_nnn.ERR contains textual error description.

Remarks:

Quote:
Qualification form for SW application
on PC connected to FP:

As a part of nonfiscal text

IT IS FORBIDDEN to print a data
which „looks like fiscal receipt»,

See 7.1 till 7.16, 8.1 till 8.16, 10.1. till 10.16 in Appendix 3-KF.doc
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Loading a Fiscal printer

Intro

Initial loading a fiscal printer with all articles in some countries is mandatory, in some recommended, in some optional. In some countries it is insisted that ALL ARTICLES before sale are in fiscal memory. Because fiscal memory capacity is around 64.000 articles, there is no explanation how to load for example auto spare parts assortment from 100.000 to 400.000 different items.

Table ART-N_nnn.DAT - New articles

This table has the same structure as table ABC_nnn.DAT until row KRAJ BONA.

You can send ONLY NEW Articles (if you wish). New articles will be processed IMMEDIATELY in Fiscal printer and in DB MetaLINK.

Remarks:

Program MetaLINK will also add new articles and price change during ABC.DAT file processing.

Table ART-R_nnn.DAT - Updated articles

This table has the same structure as table ABC_nnn.DAT until row KRAJ BONA.

You can send ONLY UPDATED Articles (changed name or Tax group).

Remarks:

This possibility you can use only if according to the Law some article change their Tax groups.

Table ART-D_nnn.DAT - Deleted articles

This table has the same structure as table ABC_nnn.DAT until row KRAJ BONA.

You send ONLY Articles you wish to permanently delete from fiscal printer. This file will be processed immediately after daily closure.

Remarks:

We recommend, if you need to, to send all those files ART-R_nnn-DAT and ART-D_nnn.DAT immediately after daily closure ART-R_nnn-DAT and ART-D_nnn.DAT.

A. Initial loading of article

Za	total PLU No	Phase min'	total min'	total HH	total min	1000 min
			0			
First 7.500	7.500	14	14	0	14	1,9
next 7.500	15.000	24	38	0	38	3,2
Next 7.500	22.500	32	70	1	10	4,3
Next 7.500	30.000	40	110	1	50	5,3
Next 7.500	37.500	48	158	2	38	6,4
Next 7.500	45.000	57	215	3	35	7,6
Next 7.500	52.500	66	281	4	41	8,8
next 7.500	60.000	76	357	5	57	10,1
last 5.000	65.000	60	417	6	57	12,0
Price change	7.500	8				1,6
Delete	7.500	4				0,5
Delete	15.000	7				0,5
Delete	30.000	14				0,5
Delete	45.000	21				0,5
Delete	60.000	28				0,5
Delete	65.000	30				0,5

Chapter 03
Differences by countries

Montenegro	3 - 2
Republika Srpska	3 - 2
Macedonia	3 - 3
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MetaLINK - Firmware

Programme supports the following Firmware version:

Firmware - Serbia

Ver. 1.22 SR	09-11-2003 12:30,	checksum: BB78	
Ver. 1.50 SR	26-07-2004 10:00,	checksum: BA46	
Ver. 2.00 SR	21-05-2008 13:30,	checksum: AC2A	*** NEW ***

Firmware – Montenegro

Ver. 2.10 CG	10-04-2005 10:30,	checksum: 35C2	
Ver. 3.01 CG	11-06-2009 15:30,	checksum: 91F7	*** NEW ***

Firmware - Macedonia

Ver. 1.32 MK	04-11-2003 12:00,	checksum: BF6D	
Ver. 2.00 MK	28-03-2008 12:00,	checksum: 75B0	
Ver. 2.10 MK	26-01-2009 15:30,	checksum: DCA8	
Ver. 2.11 MK	03-02-2009 13:30,	checksum: EAFD	*** NEW ***

Firmware – Rep. Srpska

Ver. 1.00 BH	07-05-2008 10:30,	checksum: 28A1	
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Firmware - Bulgaria

Ver. 2.00 BG	06-02-2002 10:15,	checksum: 1FAC	
Ver. 4.10 BG	08-06-2007 10:15,	checksum: 4AF0	
Ver. 4.10 BG	10-03-2008 10:15,	checksum: 4AF0	*** NEW ***

Montenegro

TAX_ID VARCHAR(1) NOT NULL (mandatory)
Tax Group ID
(0-A, 1-B, 2-C, 3-D, 4-E, 5-F, 6-G, 7-H)

Remarks:

In Montenegro according to the Law:

(0 – A) Higher Tax 17%, (1 – B) free of Tax,
(2 – C) Lower Tax 7%, (3 – D) not used,

(4 – E) not used, (5 – F) not used, (6 – G) not used, (7-H) not used.

THIS IS A RECOMMENDATION ONLY,

In coordination with certified service center you can set Tax group with different letters (numbers).

SPECIAL COMMAND
205 Print articles sold within a day (Montenegro only)

Adding quantity on stock

In Montenegro you it is mandatory to save quantity in fiscal printer.
Obviously, it is only for Retail store with only one POS.

To set quantity on stock initially, send file ART-N.DAT (with structure identical to ABC.DAT till KRAJ BONA, but without this clause). All articles will be added as new and initial quantity will be set.
To set quantity on stock later (new input), send file ART-K.DAT (with structure identical to ABC.DAT till KRAJ BONA, but without this clause). All quantity will be added on stock.

If you have a problem to keep on stock quantity, we recommend at the day closure, to delete all articles and send file ART-N.DAT again.

Way of payment - (on) credit

Beside three standard ways of payments, in Montenegro there is also 4th - on credit.
You can do this with PAY_4 row in ABC.DAT.

When you can use this 4th way of payment please read specific Law.

Republika Srpska

TAX_ID VARCHAR(1) NOT NULL (mandatory)
Tax group ID.
(0-A, 1-E, 2-J, 3-K)

Remarks:

In Republika Srpska accordnig to the Fiscal Law:

(0 – A) not in VAT System 0%,

(1 – E) Higher Tax 18% (2 – J) Lower Tax, (3 – K) Free of Tax 0 %,

Storno Bill

In Republika Srpska there are customer claims after sales.

In Serbia customer claims after sales issue paper documents (NI Forms).

File name you send is REK_nnn.DAT, structure is identically to ABC_nnn.DAT.

Remarks:
In file REK_nnn.DAT IS MANDATORY (AS A LAST ROW) REKBROJ -

Sample:

CMD159	1	»4. row of footer« < 32 CH	1.00	0
CARD_ID	1	»BROJ KARTICE« < 20 CH	1.00	0
REK_BROJ	1	»Storno Bill Number«	1.00	0

In file ABC_nnn.DAT REK_BROJ does not exists as a last row.
In Storno Bill you do not need to fill in « PAY_1, PAY_2, PAY_3, because you return money to the customer.

Nonfiscal text

TXT_nnn.DAT is not allowed.

Ways of payment - via bank

There is 4th way of payment: via bank.
Just send PAY_4 row in ABC.DAT.

Macedonia

TAX_ID VARCHAR(1) NOT NULL (mandatory)
Tax group ID.
(0-A, 1-B, 2-V, 3-G)

Remarks:

In Macedonia according to the Law:

(0 – A) **Higher Tax 18%**, (1 – B) **Lower Tax 5%**
(2 – V) **Free of Tax**, (3 – G) not used,

Regular Bill

In Bill does there are no refund items i.e. in ABC file quantity is always > 0
Also VAT is rounded on 0.50 denars and all amounts are rounded on 0.50 denars

Storno Bill

In Macedonia there are customer claims after sales.
File name is STO_nnn.DAT and the structure is identically to ABC_nnn.DAT.

- In STO file - there are all rows until KRAJBONA
- row KRAJBONA is excluded.

Sample:
1001,0,"Hleb",20,1
1003,0,"Mleko",50,2

Nonfiscal text

In Macedonia TXT_nnn.DAT is not allowed.

Free text at the Bill End

There are optionally two additional rows at the end of the Bill (because there is no footer)
You send them as MK_RED_1 and MK_RED_2 At the end of ABC_nnn.DAT.

Speed setting

Remarks: MetaLINK communicate with FP-550 using 19.200 baud rate, it is necessary to warn that during fiskalization official service center sett baud rate on 19.200.

Bulgaria

Intro

Remarks !

Law & Regulation in Bulgaria has a lot of specific features

therefore we made a separate special programmers guide,
see:

[MetaLINK_Bulgaria_V76-200.pdf](#)

Chapter 04 Installation

Licensing 4 - 1

Installation 4 - 2

Basic Installation
Executable

Setup 4 - 3

Folder structure
Registry

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Messages 4 - 5

Licensing

Program MetaLINK from MetaLINE RETAIL Solutions series:

also and (freeware) programmes: FP550-Check, FP550-SERVIS

are developed by METADATA d.o.o. (fiskal@metadata.rs)

Licences give you a right to use executable version of programmes.
Licence is "linked" for Fiscal Printer FP-550 and VAT number.

Sample: AG012340_123456789.lic for MetaLINK

Is licence for IBFM: AG012340 and owners VAT: 123456789.

Remarks:

You can get licence on the following ways:

- A. By e-mail fiskal@metadata.rs
Send Company VAT number and printer AG number
- B. Fill in forms on Site: www.metadata.eu.com
Zahtevaj licencu (Ask for licence)
- C. Send an SMS message
See also www.metadata.eu.com
- D. Call +381 (11) 212 04 60, 313 04 94

Remarks:

In other countries we need also Diagnostic report to give you a licence file.
Press RECEIPT button than power on, the printer will print DIAGNOSTIC.

Remarks:

A. When you change Fiscal module (IBFM) from AG012340 you can use the same licence.

Remarks:

B. When you change customer VAT number, you need new licence.

Test Licence (000000000)

is licence for nonfiscalized FP-550 (VAT=000000000)
with limited duration of 30 days for testing purposes.

Limited Licence (L)

is REAL Licence for fiscalized FP-550,
but limited on 30 days...

Final Licence (F)

is REAL Licence for fiscalized FP-550, and it is valid until year 2020.

Installation

Basic Installation

Programmes from MetaLINE RETAIL Solutions - series of business solution have a common basic installation.

Copy file METALINE_INSTALL_v404.EXE from CD to C: root

1. Start METALINE_INSTALL.EXE

Press button : INSTALIRAJ !

Wait for a moment. basic installation is finished.

Remarks: Also is possible to install program on other disks D., E:.
Call for How to do.

Executable

Step 1. Copy file METALINK.EXE from CD to C:\METALINE\RUN
Copy file METALINK-Menu.EXE from CD to C:\METALINE\RUN

Step 2. Copy Licence file from CD to C:\METALINE\APPL

Step 3. Switch on Fiscal printer FP-550

Step 4. Start METALINK.EXE
MetaLINK appears in SysTray as BIG letter L.

IF FISKAL PRINTER IS CONNECTED to COM Port different then COM1
in C:\METALINE\APPL\LINK.INI change FP=COM1 to FP=COM2

Remarks:

If you install FP-550 over USB – RS232 adapter, it is not so easy to establish on which COM Port is FP-550 connected.

Use freeware programme FP550-Check to find out on which COM Port is FP-550 »connected«.

Setup

Folder structure

Basic installation on C:\METALINE will create the following structure:

C:\METALINE

C:\METALINE \Appl Licence files and INI files

Remarks:
Although default values are set to the most common values, WE RECOMMEND to check once again all settings ini .INI files.

C:\METALINE \Database Database MetaLINK.FDB

Remarks:
We recommend that from time to time (at least once a week) you do Backup with checked Optimize button.

Also after you make a backup, put backed-up files on flash, CD outside retail store.

C:\METALINE \Exch Folders for exchange

C:\METALINE \Exch\Lnk\From_FP data send from FP-550

C:\METALINE \Exch\Lnk\To_FP data send to FP-550

Every programme knows exactly in which folder to expect data.

Remarks:
In folders you can find also a temporary data which are used by MetaLINE programmes for internal interchange and «FINAL» data as output from MetaLINK programme (ZA, ZB, ZC, and ZR). With different setting you can switch on or off generating and sending some data.

C:\METALINE \Logs Logs, Journals, FP550_log.txt

Remarks:
In this folder you can find «Answers, Responses» from Fiscal printer if it failed to «execute» some commands.

FP-550_log.txt is a log of commands which FP-550 failed to execute.
LINK_log.txt is a log files and/or commands which MetaLINK failed to execute.

C:\METALINE \Other different scripts

Remarks:
In this folder you can find CLEAR DB which are currently in folder /Database. .

C:\METALINE \RUN executables and RunTime library

MetaLINE RETAIL Solutions programmes use (freeware) RDBMS FireBird 2.0 and Borland Developer Studio (C++) rapid development tools.

C:\METALINE \Utility Utility (Acrobat Reader, ZIP)

Remarks:
Some of them are freeware, some are shareware and some are licensed..
You decide which of them you need.

Registry

MetaLINE RETAIL Solutions use O.S. registry database:

HKEY_LOCAL_MACHINE\SOFTWARE\Metadata\MetaLINE:

Local_Install_Dir: C:\METALINE
STORE_Install_Dir: C:\METALINE

If FrontStore programmes and BackStore programmes are on different PCs, you need to change in Registry,

STORE_Install_Dir: W:

where W: = C:\METALINE is a share on second PC.

Link.ini

[Osnovno]

PC as POS unique ID
TerminalNo=001

Path to DB
DbPath=C:\MetaLINE\Database\MetaLINK.fdb

Format you want data to be exported
ExportFormat=TXT (DBF,TXT,CSV, XML)

If 'D' print full article name, and in second row qty X price, amount
UvekPunNaziv=D

file name ZA, ZB,ZC
ExportLongName=D

Allowed differences between PC and FP-550 time in minutes
TimeAlert=30

Message will be in
Language=SRB

[Portovi]

Serial Port is.
FP=COM1

[MetaKASA]

Send last printed Bill back to Backstore
If „D” return file ZR_PosSeq.dat
SaljiRacunUvek=N

Send back Turnover data in Backstore
If „D” returns files ZA, ZB, ZC
SaljiAnalitikeUvek=N

Parameter description:

TerminalNo=001

Make sure that each POS has unique number within retail store.

DbPath=C:\MetaLINE\Database\MetaLINK.fdb

Do not change

ExportFormat=TXT (DBF,TXT,CSV, XML)
UvekPunNaziv=D
ExportLongName=D

Parameters define the name of file ZA, ZB, ZC MetaLINK returns in short format (ZA00167.csv) =N or long format (ZA00167_2007-05-16.csv) = D. Programmers developing in DOS application can not receive files with names longer then 8 CH.

TimeAlert=30

FP=COM1

Available values are: COM1, COM2, COM3, COM4, COM5, COM6, COM7, COM8. Use our freeware programme FP550Check to find out COM Port on which FP-550 is connected.

SaljiRacunUvek=N
SaljiAnalitikeUvek=N
ExtraABCR=N,N,N,N
ExportCC=N

Messages

// A. Messages displayed on Screen also written in LOG file

msgEng[0]=

"Database can not be read!\n\n
Recommendation:\n\n
1. Call MetaData";

msgEng[1]=

"Communication with FP-550 interrupted!\n
Program will shutdown!\n\n
Recommendation:\n\n
1. Check all cables\n\n
2. Check green led on FP-550\n\n
3. Check green led on L1 on GPRS modem";

msgEng[2]=

"Customer DISPLAY cable probable broken!\n
Sales is forbidden\n\n
Recommendation:\n\n
1. Check cable";

msgEng[3]=

"no paper on BON or JOURNAL tape!\n\n
Recommendation:\n\n
1. Change paper!\n\n
2. Return LEVER!\n\n
3. Close COVER!\n\n
Press OK when finish";

msgEng[4]=

"Time difference between PC and FP-550 is more then defined!\n\n
Recommendation:\n\n
"1. Check and set PC time \n"
"2. Check winter/summer time on FP-550, with MetaLINK-menu\n"
"3. Set time in certified service centre";

msgEng[5]=

"Program requires MetaLINK.fdb ver.300!\n
Program will shutdown!\n\n
Recommendation:\n\n
1. Call MetaData";

msgEng[6]=

"This FP-550 IS NOT fiscalized!\n
You are working at your own responsibility!";

msgEng[7]=

"VAT or AG number in license do not correspond to data in FP550!\n\n
Recommendation:\n\n
1. Call for license";

msgEng[8]=

"License is out-of-date!\n\n
Recommendation:\n\n
1. Call for license";

//B. Messages NOT displayed on Screen but written in LOG file

msgEng[50]=

"Action requires CLOSING A DAY!";

msgEng[51]=

"Tax groups are not set!\n\n
Recommendation:\n\n
Take printer in certified service centre";

msgEng[52]=

"deleting article from Printer is not successful!\n\n
Recommendation:\n\n
Call certified service centre or Metadata";

msgEng[53]=

"Structure of ABC file wrong!\n\n
Recommendation:\n\n
1. Must have clause KRAJBONA\n
2. Must have from 1 to 200 items";

msgEng[54]=

"Field CENA / PRICE – must be from 0.01 to 990000";

msgEng[55]=

"Field KOLICINA / QUANTITY–must be formatted: \n\nNNNNN , NNN.N , NN.NN , N.NNN ,not 0";

msgEng[56]=

"Field IZNOS / AMOUNT – must be from 0 to 99000000";

msgEng[57]=

"During processing FP-550 is changed with other!\n
Program shutdown!";

msgEng[58]=

"Tax group can not be changed!\n\n
Recommendation:\n\n
1. Close a day\n
2. Delete articles from FP-550 and database";

msgEng[59]=

"tax Group change unsucessfull!";

Chapter 05
Menu, Simulator

MetaLINK – Menu 5 - 2

MetaLINK - Simulator 5 - 3

MetaLINK – Export tables 5 - 4

- Table ZA - Sales details
- Table ZB - Payment details
- Table ZC - Closing details
- Table ZR - Original Invoice

MetaLINK – Menu

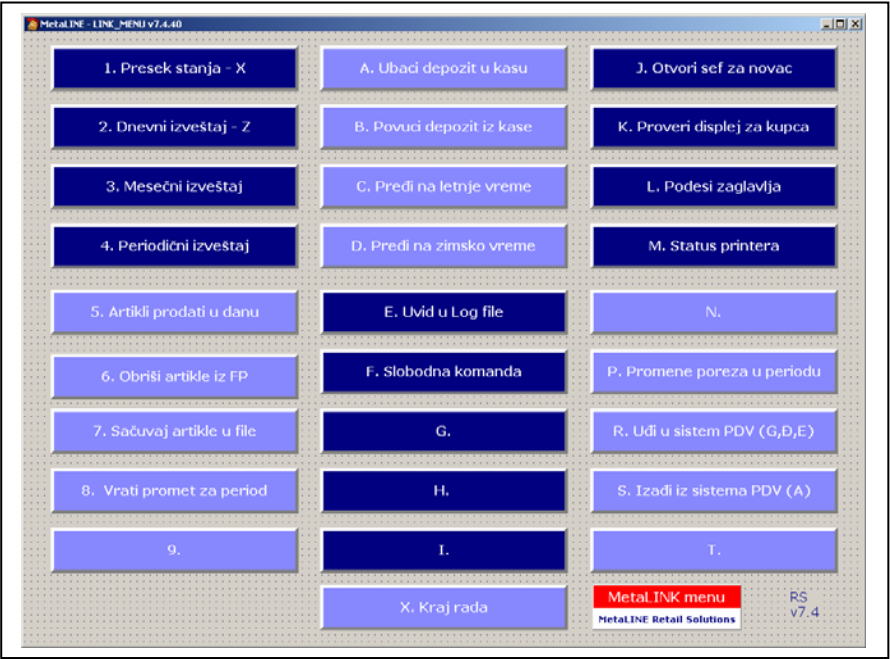
From MetaLINK v7.4.x version, programme MetaLINK does not appear in Toolbar, but in SysTray (as »BIG RED letter« **L**).

Therefore all options available previously through Menu – Administration have been extracted to a standalone executable MetaLINK-Menu.

This programme can be started independently (MetaLINK must be started before) and from this programme you can execute all options.

This splitting was necessary because we moved programme MetaLINK to SysTray.

Without the interface – starting form, we make it even more difficult to stop a program by accident. Also many programmers send and execute all options needed by their customers from their POS programme.



// A. Titles on button in MetaLINK-Menu program

- 1. Current Sale Report – X
- 2. Daily Report – Z
- 3. Monthly Report
- 4. Periodical Report
- 5. Articles sold in day
- 6. Delete article from FP-550
- 7. Save articles in file
- 8. Send turnover for period
- 9. ---
- A. Deposit in cash drawer
- B. Deposit out from cash drawer
- C. Set Summer Time
- D. Set Winter Time
- E. View a log file
- F. Free command
- G. ---
- H. ---
- I. ---
- J. Open cash drawer
- K. Check customer display
- L. Set header/footer
- M. Printer status
- N. ---
- P. Tax changes in period
- R. Enter VAT system (G, D, E)
- S. Exit VAT system (A)
- T. ---
- X. EXIT

MetaLINK - Simulator

If you are not able to test your POS program with fiscal printer, we developed program MetaLINE Simulator, for testing whole solution WITHOUT the fiscal printer.

You can use this program for testing your solution for Serbia, Montenegro, Macedonia, Bulgaria and Republika Sprska.

Installation is available at site: www.metadata.eu.com

MetaLINK – Export tables

All data you sent to MetaLINE LINK for processing (ABC-nnn.DAT) are after processing saved in DB (MetaLINK.FDB). End-user can using different settings in LINK.INI to request sending back sales data in appropriate format (CSV, DBF, TXT, XML). End-user can compare with their selling data.

Remarks:

This data are available only until you delete them from DB.

Table ZA - Sale details

All numerical data of type NUMERIC(NN,n) must be entered as NNNNN.NN i.e. with decimal point (regardless regional settings).
Attributes marked as »NOT NULL« are mandatory.

Table PRODAJA (SALES) represents every single item sold, within one daily closure ZET_ID, in one retail store TRM_ID.

ZET_ID	* VARCHAR(6)	Unique number ZET.
TRM_ID	* VARCHAR(3)	Unique terminal ID i.e. EPoS working place.
DTM_TRAN	* VARCHAR(25)	Transaction date and time, when sale occurred
DTM_ZET	VARCHAR(25)	ZET date and time, when day is closed.
BON_ID	INTEGER	Receipt ID.
USR_ID	VARCHAR(4)	User (Cashier) ID
ART_ID	VARCHAR(10)	Article ID in BackOffice.
TAX_ID	VARCHAR(1)	Tax group ID (from 0 to 9)
PLU_NAZIV	VARCHAR(40)	Article Name used in printer up to max. 32 characters
KOLICINA	NUMERIC(10,3)	Quantity.
CENA	NUMERIC(10,2)	Price including VAT.
IZNOS	NUMERIC(10,2)	Sum (quantity * price).
PRC_POPUST	NUMERIC(10,2)	Discount percent (in item).
IND_STORNO	VARCHAR(1)	Indicator if storno - refund.
FP_COMMAND	VARCHAR(50)	For internal use.

File full name = ZATrmSeq_GGGG-MM-DD.DAT

Trm	Terminal ID EPoS
Seq	Document number
GGGG-MM-DD	YYYY-MM-DD

Table ZB - Payment details

Table of payments represents payments of each receipt within the same ZET_ID, of one POS place TRM_ID.

ZET_ID	* VARCHAR(6)	Unique number ZET.
TRM_ID	* VARCHAR(3)	Unique terminal ID i.e. EPoS working place.
DTM_TRAN	* VARCHAR(25)	Date and time of transaction, payment
DTM_ZET	VARCHAR(25)	ZET date and time, when day is closed.
BON_ID	INTEGER	Receipt ID.
USR_ID	VARCHAR(4)	User (Cashier) ID
IZNOS	NUMERIC(10,2)	Receipt amount.
KUSUR	NUMERIC(10,2)	Change.
PAY_1	NUMERIC(10,2)	Payment in pay type 1
PAY_2	NUMERIC(10,2)	Payment in pay type 4
PAY_3	NUMERIC(10,2)	Payment in pay type 3
PAY_4	NUMERIC(10,2)	Payment in pay type 4 (MNE, BIH, BLG)
PAY_5	NUMERIC(10,2)	Payment in pay type 5, for future use
PAY_6	NUMERIC(10,2)	Payment in pay type 6, for future use
CARD_ID	VARCHAR(20)	
ITEMS_NO	INTEGER	Total number of items.
IND_POPUST	VARCHAR(1)	Indicator if there are some discounts
IND_STORNO	VARCHAR(1)	Indicator if there are storno - refund.

File full name = ZBTrmSeq_GGGG-MM-DD.DAT

Trm	Terminal ID EPoS
Seq	Document number
GGGG-MM-DD	YYYY-MM-DD

Table ZC - Closing details

Table DAILY CLOSURE represents only one row, within one ZET_ID, on one POS TRM_ID.

ZET_ID	VARCHAR(6)
TRM_ID	VARCHAR(3)
DTM_TRAN	VARCHAR(25)
END_BON_ID	INTEGER
BR_BONOVA	INTEGER
BR_STAVKI	INTEGER
FP_IZNOS	NUMERIC(10,2)
DB_KUSUR	NUMERIC(10,2)
DB_PAY1	NUMERIC(10,2)
DB_PAY2	NUMERIC(10,2)
DB_PAY3	NUMERIC(10,2)
DB_PAY4	NUMERIC(10,2)
DB_PAY5	NUMERIC(10,2)
DB_PAY6	NUMERIC(10,2)
FP_VAT0	NUMERIC(10,2)
FP_VAT1	NUMERIC(10,2)
FP_VAT2	NUMERIC(10,2)
FP_VAT3	NUMERIC(10,2)
FP_VAT4	NUMERIC(10,2)
FP_VAT5	NUMERIC(10,2)
FP_VAT6	NUMERIC(10,2)
FP_VAT7	NUMERIC(10,2)
FP_VAT8	NUMERIC(10,2)

File full name = ZCTrmSeq_GGGG-MM-DD.DAT

Trm	Terminal ID EPoS
Seq	Document number
GGGG-MM-DD	YYYY-MM-DD

Table ZR - Original Invoice

Table ZR is identical to table ZA, except that it contains data for one fiscal receipt.

File full name = ZRTrmBrRacunaGGGG-MM-DD.DAT

Trm	Terminal ID EPoS
BrRacun	Receipt Number from DB
GGGG-MM-DD	YYYY-MM-DD

	Returns files Sales in period, ZA, ZB, ZC	
220	DDMMYY-DDMMYY	
	Delete from DB Sales data for period	
230	DDMMYY-DDMMYY	
	Returns file with Sales in open day XA, XB	
240	NO PARAM	
	Returns file with Refund items ZAS, ZBS	
250	DDMMYY-DDMMYY	
	Returns file Artikli.dat with all articles in DB	
130	NO PARAM	

All files MetaLINK returns, will be in folder C:/Metaline/Exch/Lnk/From_FP

Files ZAS and ZBS are identically to Files ZA and ZB but only with refund items.

Countries in SEE region

Country	3 C	2 C	Printer code	Country	Item desc	Quantity	Price	items in Bon	No ZETs	Status
Bulgaria	BLG	BG	FP-550-40	Bulgaria	2 x 25	N8.3	N8.2	250	1981	since 2009
Macedonia	MKD	MK	PF-550	Macedonia	2 x 25	N8.3	N8.2	200	2684	since 2006
Montenegro	MNE	ME	VG-550	Montenegro	1 x 24	N8.3	N8.2		1887	since 2001
Rep. Srpska	RS		FP-550 Plus	Rep. Srpska	1 x 32	N8.3	N8.2	250	1975	since 2008
Serbia	SRB	RS	FP-550	Serbia	1 x 32	* N5 3d	N8.2	250	1898	since 2004

Country	3 C	2 C	Printer code	Country	Item desc	Quantity	Price	items in Bon	No ZETs	Status
Albania	ALB	AL	FP-550H	Albania	2 x 30					in Y 2010
Bosnia	BIH	BA		Bosnia						in Y 2010
Croatia	HRV	HR		Croatia						N/A
Greece	GRE	GR		Greece						TBD
Hungary	HUN	HU		Hungary						TBD
Poland	POL	PL		Poland						TBD
Romania	ROU	RO		Romania						in Y 2010
Russia	RUS	RU		Russia						TBD
Slovenia	SNV	SI		Slovenia						N/A
Ukraine	UKR	UA		Ukraine						TBD

SRB Serbia (RS) CC = 8 CodePage =

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MNE Montenegro (ME) CC = 7 CodePage =

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BIH Republika Srpska (BA) CC = 10 CodePage =

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Bulgaria (BG) CC = 6 CodePage = MS-DOS (866)

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ROU Romania (RO) CC = 9 CodePage =

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UKR Ukraine (UA) CC = 2 CodePage = MS-DOS (866)

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ALB Albania (AL) CC = CodePage

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