

ON - LINE FISCAL PRINTER PROTOCOL

Acknowledgement :

ECR has no answer when NUM sended from PC is not his own

ECR return positive answer if it is not busy and message from PC is correct:

ECR return negative answer when :

- the message has a syntax error (Display Line Error 6)
- if line command can not be realized or is forbidden (insufficient or overflow in sums and results) (Display Line Error 6)
- if internal buffer of ECR is full (Display Line Error 6)
- if checksum is Wrong (possible communication error) (Display Line Error 6)

ECR halt the communication if internal timeout expired. Communication routine must must be sent from the beginning (Display Line Error 5)

The contents of file :

ACTIONS :

Action " sale of article"

"*"+NAME+PRICE+DECIMAL POINT+QUANTITY+TAX GROUP+SUBGROUP+GROUP where:

"*" is 1 byte ASCII symbol (0x2A) ;

NAME is 24 bytes ASCII symbols for name of article

PRICE – is 8 bytes ASCII digits for price

DECIMAL POINT is 1 byte ASCII digit(0 or2) : for integer price 0 (examp. 12345678) for price with dec. point 2 (examp. 123456.78)

QUANTITY – is 9 ASCII digits for quantity with 3 digits after dec. point (examp.123456.789)

TAX GROUP is 1 byte ASCII digit (from 0 to 4) 0 for NON TVA, 1 to 4 for A to D tax groups

SUBGROUP is 1 byte ASCII digit (from 0 to 9) corresponding to number of departments of ECR

GROUP is 1 byte ASCII digit no matter to this models of ECR usually 0

Action " sale free sum " (aceasta functie a fost interzisa !!! – nu se mai poate folosi.)

"S"+SUM+DECIMAL POINT+QUANTITY+TAX GROUP+SUBGROUP+GROUP where :

"S" is 1 byte ASCII digits (0x53)

SUM is 8 bytes ASCII digits for the sum

DECIMAL POINT is 1 byte ASCII digit (0 or 2) for integer price 0 (examp. 12345678) for price with dec. point 2 (examp. 123456.78)

TAX GROUP is 1 byte ASCII digit (from 0 to 4) 0 for NON TVA, 1 to 4 for A to D tax groups

SUBGROUP is 1 byte ASCII digit (from 0 to 9) corresponding to number of departments of ECR

GROUP is 1 byte ASCII digit no matter to this models of ECR usually 0

Action" reduction" (rabat)

"-"+SIGN+SUM+DECIMAL POINT+TAXGROUP where :

"-" is 1 byte ASCII symbol (0x 2D)

SUM is 8 bytes ASCII digits for sum of reduction

DECIMAL POINT is 1 byte ASCII digit (0 or 2) for integer price 0 (examp.12345678) for price with dec. point 2 (examp. 123456.78)

TAX GROUP is 1 byte ASCII digit (from 0 to 4) 0 for NON TVA, 1 to 4 for A to D tax groups

Action "addition" (adaos)

"+"+SUM+DECIMAL POINT+TAXGROUP where :

“+“ is 1 byte ASCII symbol (0x 2B)

SUM is 8 bytes ASCII digits for sum of addition

DECIMAL POINT is 1 byte ASCII digit (0 or 2) for integer price 0 (examp.12345678) for price with dec. point 2 (examp. 123456.78)

TAX GROUP is 1 byte ASCII digit (from 0 to 4) 0 for NON TVA, 1 to 4 for A to D tax groups

Action “print free text”

“P” + TEXT where :

“P” is 1 byte ASCII symbol (0x 50)

TEXT is 22 bytes ASCII symbols for free text

Action “ payment” where :

“q” +RATE+TYPE+NAME

“q” is 1 byte ASCII symbol (0x 71)

RATE is 9 bytes ASCII must be : 000001000

TYPE is 1 byte ASCII digit (from 0 to 3) corresponding to number of payments of ECR (0=Cash, 1-3 = PY1- PY3)

NAME is 6 bytes ASCII symbols for name of payment

Action “ PAYD OUT” where :

“R;|”+SIGN+SUM+DECIMAL POINT+NAME+TYPE

“R;|” is 3 bytes ASCII symbol (0x52) , (0x3B) and (0x 49)

SIGN = “-“ is 1 byte ASCII symbol (0x2D)

SUM is 8 bytes ASCII digits for sum of PO

DECIMAL POINT is 1 byte ASCII digit (0 or 2) for integer price 0 (examp.12345678) for price with dec. point 2 (examp. 123456.78)

NAME is 6 bytes ASCII symbols for name of PO

TYPE is 1 byte ASCII digit (from 0 to 3) corresponding to number of payments of ECR (0=Cash, 1-3 = PY1- PY3)

Action “ RA” where :

“R;|”+SIGN+SUM+DECIMAL POINT+NAME+TYPE

“R;|” is 3 bytes ASCII symbol (0x52), (0x3B) and (0x 49)

SIGN = “+“ is 1 byte ASCII symbol (0x2B)

SUM is 8 bytes ASCII digits for sum of RA

DECIMAL POINT is 1 byte ASCII digit (0 or 2) for integer price 0 (examp.12345678) for price with dec. point 2 (examp. 123456.78)

NAME is 6 bytes ASCII symbols for name of RA

TYPE is 1 byte ASCII digit (from 0 to 3) corresponding to number of payments of ECR (0=Cash, 1-3 = PY1- PY3)

Tips and tricks:

- ECR control all internal summary register for insufficient or overflow and return NAK if that is present. No definition for type of error Software from PC must analyze and correct error and start communication routine again.
- If all action messages are “free text” type ECR print “BON NEFISCAL” but every printed line of free text finishes with simbol “*”
- Guarantee for succesfull communication routine is message with number of receipt that be printed. ECR starts printing of the receipt immediately after receiving message ACK from PC

NOTA

Fisierrul se va numii obligatoriu "Tx.Txt"

In fisierul Rx.txt (doar pentru Visual Basic) se va inscrie numarul bonului emis de casa de marcat si data/ ora din calculator

Exemple de fisier Tx.txt pentru VISUAL BASIC :

KARAT (acest cuvint se foloseste ca start text)

; vinzare PLU

*,123456789012345678901234;00000100;0;000001000;1;1;1;

; aici este RA si PO

;R;l;+;00001000;0;AaCDEF;1;

;T;000001000;0; leee;

;vinzare departament

S;00125455;2;1;1;0;

; text publicitar

P;abcdefghijklm;

P;nopqrstuvwxyz;

P;xyz;

;rabat

-;00080000;2;1;

; majorare

+;00055555;2;1;

;P;*DEMONSTRATION*;

T;000001000;0; leee;

END KARAT (acest cuvint se foloseste ca start text)

OBSERVATII

1. Dupa fiecare transmisie corecta casa de marcat trimite numarul bonului ce se va emite . Dupa aceasta transmisie casa de marcat va incepe tiparirea.
2. Daca primul caracter este .un simbol ";" (0x3B) atunci rindul respectiv devine comentariu si nu se ia in considerare pentru transmisie .
3. Cuvintete "KARAT" si "END KARAT" se folosect ca Start text si respectiv End text

2. In versiunea DOS sau WIN

~. Separatorul intre parametrii nu exista .

3. In versiunea modificata sub VisualBasic:

~ Separatorul intre parametrii este simbolul ASCII ";" (0x3B)

~ Daca primul caracter este .un simbol ";" (0x3B) sau spatiu (0x20) atunci rindul respectiv devine comentariu si nu seia in considerare

~ NU trebuiesc obligatoriu introduse **KARAT** (pentru START text) si **END KARAT** (pentru END text)

4. Pentru alte detalii sunati la **242.39.66** sau **0722.522.113**

Cu stima,
Nelu Nemesiu

DOS VERSION

command line:

fprinter <file name> <ECR number> <com>

<file name> : file with comands (in example SIMPLE.BON)

<ECR number> : 6 digits - ECR serial number (last 6 digits)

<com> : 1 / 2

SIMPLE.BON :

File's format: ASCII

First row:

KARAT

File includes commands for sales - every new row is one command

Row with first character ';' means coment.

Row "sale of article"

|A | name | price | decimal point| quantity | tax | subgr | gr.|

command 'A'

24 symbols for name (letters - only upper case), symbols 17-24 unprintable

8 digits for price

1 digit for decimal point of prise:

'0' - the prise is integer (examp. 12345678)

'2' - the prise is with dec.point (examp. 123456.78)

9 digits for quantity with 3 digits after dec.point (examp.123456.789)

1 digit for tax group = '0','1','2','3','4'

'0' - NON TVA

'1'..'4' - A..D

1 digit for subgroup. of art.= '0' ... '9'

1 digit for art.group of art. = '0' ... '9', without meaning of this cahs register

Row "free text"

| P | 22 simbols ASCII text |

22 symbols for name (letters - only upper case), symbols 17-22 unprintable

Row "sale summ"

Comand sale - summ, who is discr. with free text

| S | summ |dec.point| tax | subgr | gr |

command 'S' - dezactivata !!!
8 digits for summ
1 digit for decimal point of summ (0 or 2)
1 digit for tax group = '0','1','2','3','4'
1 digit for subgr. of art.= '0' ... '9'
1 digit for art.group of art. = '0' ... '9', without meaning of this cahs register

Row "rabat"

| - | summ of discount | dec.p. | tax |
command '-'
8 digits for summ
1 digit for decimal point of summ
1 digit for tax group = '0','1','2','3','4'

Row "adaos"

| + | summ of addition | dec.p. | tax |
command '+'
8 digits for summ
1 digit for decimal point of summ
1 digit for tax group = '0','1','2','3','4'

Last rows:

T0000010000 CASH

END KARAT

Row "transaction"

| T | change rate | pay type | name |

command 'T'
9 digits for change rate with 3 digits after dec.point (examp.000001.000)
1 digit for pay type = '0','1','2','3'
'0' - CASH /cahnge rate must be 1:1/
'1'..'3' - Plata 1 - 3
6 symbols for name (letters - only upper case)

example - SIMPLE.BON

KARAT
PTEST TEST TEST TEST.....
T0000010000 TOTAL
END KARAT

WIN VERSION

fprwin.exe - for WIN applications
format for wprwin.exe is the same:

fprwin textfile ser.number com
ser.number for wprwin - you can use less than 6 numbers (ex: 604)
com = 1 / 2

Description of fprwin.ini :

show = 1 display errors;
show = 0 without display;

shownum = 1 display number of errors;
shownum = 0 without number;

caption = ".....text....." - message for display;
[log]

file="C:\testfprwin\NrBon.txt" This filename contents number of chek;

Note: this file is deleted when fprwin.exe starts

*In fisierul NrBon.txt se va rescrie de fiecare data numarul bonului emis de casa . Calea trebuie pusa exact unde este fprwin.exe.
Apariria acestuia confirma transmisia corecta.*

[main] For cyrillic text:
oem = 1 - for win applications (text converts to ECR-ASCII)
oem = 0 - text was written in DOS application

example – text file wil be “Tx.Txt”

KARAT

; sell article

;article name 24 simbols

;(17-24 nonprintable)

*AEMMF STAR *****098000000000001000100

*PAPER ROLL TERM.*****000245000000012000100

; rabat

-0008000001

; adaos

+0001000001

; free text 22 simbols

;(17-22 nonprintable)

P CITOPLAST *****

P 1000 m 125,40 *****

; sell free sum

S001254000100

P*****

P*DEMONSTRATION*

P*****

T0000010000 CASH

END KARAT