DYNAMIC LINKING LIBRARY
"TFHKAIF.DLL"

MANUAL

Versión R1.2-I

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1 DECLARATION OF DLL (TFHKAIF.DLL)

To: C y C++

```
BOOL _stdcall OpenFpctrl(LPCSTR lpPortName);
BOOL _stdcall CloseFpctrl();
BOOL _stdcall CheckFprinter();
BOOL _stdcall ReadFpStatus(LPINT status, LPINT error);
BOOL _stdcall SendCmd(LPINT status, LPINT error , LPCSTR cmd );
int _stdcall SendNCmd(LPINT status, LPINT error , LPCSTR buffer );
int _stdcall SendFileCmd(LPINT status, LPINT error, LPCSTR file );
BOOL _stdcall UploadStatusCmd(LPINT status, LPINT error, LPCSTR cmd, LPCSTR file );
BOOL _stdcall UploadReportCmd(LPINT status, LPINT error, LPCSTR cmd, LPCSTR file );
BOOL _stdcall UploadStatusCmdDin(LPINT status, LPINT error, LPCSTR cmd, LPCSTR Cadena);
BOOL _stdcall UploadReportCmdDin(LPINT status, LPINT error, LPCSTR cmd, LPCSTR Cadena);
```

To: Visual Basic

```
Declare Function OpenFpctrl Lib "TFHKAIF.DLL" (ByVal lpPortName As String) As Long
Declare Function CloseFpctrl Lib " TFHKAIF.DLL" () As Long
Declare Function CheckFprinter Lib " TFHKAIF.DLL" () As Long
Declare Function ReadFpStatus Lib " TFHKAIF.DLL" (status As Long, error As Long) As Long
Declare Function SendCmd Lib " TFHKAIF.DLL" (status As Long, error As Long, ByVal cmd As String) As Long
Declare Function SendNCmd Lib " TFHKAIF.DLL" (status As Long, error As Long, ByVal buffer As String) As Long
Declare Function SendFileCmd Lib " TFHKAIF.DLL" (status As Long, error As Long, ByVal file As String) As Long
Declare Function UploadStatusCmd Lib " TFHKAIF.DLL" (status As Long, error As Long, ByVal cmd As String ByVal
                                                      file As String) As Long
Declare Function UploadReportCmd Lib " TFHKAIF.DLL" (status As Long, error As Long, ByVal cmd As String,
                                                      ByVal file As String) As Long
Declare Function UploadStatusCmdDin Lib " TFHKAIF.DLL" (status As Long, error As Long, ByVal cmd As String,
                                                      ByVal Cadena As String) As Long
Declare Function UploadReportCmdDin Lib " TFHKAIF.DLL" (status As Long, error As Long, ByVal cmd As String,
```

ByVal Cadena As String) As Long

Note 1: *Install DLL file in "System32" or the folder where software is running.*

2 DLL FUNCTIONS

2.1 BOOL OpenFpctrl (LPCSTR lpPortName)

Name	COM Port (Ex. "COM1" o "COM2")
Function	Serial Port Opening
Return	Port Opened= True Fail Opening = False
This function must be called before other functions	

```
Private Sub PortOpen_Click()
'////////////////////////////////////////
' Fiscal Printer Port Open
'////////////////////////////////////////
Dim bRet As Boolean
Dim Puerto As String

Puerto = Combo1.Text

ListOut ("**Open COM PORT**")
bRet = OpenFpctrl(Puerto)

msg = "OpenFpctrl = " + boolCheck(bRet)
```

Figura 1. Extract code for the operation of the function "OpenFpctrl (LPCSTR lpPortName)"

2.2 BOOL CloseFpctrl()

Name	COM Port(Ex. "COM1" o "COM2")
Function	Closure of Serial Port "COM"

```
Private Sub PortClose_Click()
'////////////////////////////////////////////.
' COM Port Close
'////////////////////////////////////////////.
Dim bRet As Boolean

    ListOut ("**Close COM Port**")
    bRet = CloseFpctrl()

    msg = "CloseFpctrl = " + boolCheck(bRet)
```

Figura 2. Extract code for the operation of the function "CloseFpctrl ()"

2.3 BOOL CheckFprinter ()

Function	Verify connection
Return	The printer is connected = True The printer is not connected = False

```
'////////////////////////////////////////////////////
' Verificación de la Impresora Fiscal
'////////////////////////////////////////////////////
Dim bRet As Boolean
bret = CheckFprinter()
```

Figura 3. Extract code for the operation of the function "CheckFprinter ()"

2.4 BOOL ReadFpStatus (LPINT status, LPINT error)

Function	Reading About the Details of Error & Status in the Fiscal Printer
Return	Stand-by = True Error = False
Status: Pointer of Status (See Annex 1) Error: Pointer of Error (See Annex 2)	

```
'////////////////////////////////////////////////////
' Lectura del Status y Error de la Impresora Fiscal
'////////////////////////////////////////////////////
Dim bRet As Boolean
Dim status As Long
Dim error As Long
bRet = ReadFpStatus(status As Long, error As Long)
```

Figura 4. Extract code for the operation of the function "ReadFpStatus (LPINT status, LPINT error)"

2.5 BOOL SendCmd (LPINT status, LPINT error, LPCSTR cmd)

Function	Sends a command line to Fiscal Printer
Return	Stand-by = True Error = False
Example: (Indicator #1 command) "500001"+{LF} LF=0Ah	
See Annex 3	

```
'////////////////////////////////////////////////
'// Factura con Datos del Cliente
'////////////////////////////////////////////////

 msg = "****** Datos del cliente:*******"
 ListOut (msg)

 cmd = "i01Nombre: Dany & Zambrano"
 bRet = SendCmd(status, error, cmd)
```

Figura 5. Extract code for the operation of the function "SendCmd (LPINT status, LPINT error, LPCSTR cmd)"

2.6 Int SendNCmd (LPINT status, LPINT error, LPCSTR cmd)

Function	Sends n command lines to Fiscal Printer
Return	Number of valid command
Example of n commands to buffer -CMD#- -Comment- 1: "T1"+{LF} (Start of Training Mode) 2: "500001"+{LF} (Indicator #1) 3: "O"+{LF}+{NULL or EOF} (Drawer Open)	
When it gets errors from Fiscal Printer, sends a command to stop process. In this case this function returns a number of commands and information about the status.	

2.7 Int SendFileCmd (LPINT status, LPINT error, LPCSTR file)

Function	Send a group of commands from a text file
Return	Number of valid command
File = Path where is located the file to send	

```
'////////////////////////////////////////////
'// File Command Submit
'////////////////////////////////////////////
Dim lRet As Long
FName = "Archivo.dat"
lRet = SendFileCmd(status, error, FName)
```

Figura 6. Extract code for the operation of the function

2.8 BOOL UploadReportCmd (LPINT status, LPINT error, LPCSTR cmd, LPCSTR file)

Function	Loads a report of data and store it in a file (ASCII)
Return	Number of Valid Command
In case any file data exist, prior to the generated data, this will be updated	

```
'////////////////////////////////////////////
'  Subir ultimo X
'////////////////////////////////////////////


   ListOut ("**In Up-Loading...**")

    cmd = "UOX"
   FileName = "Reporte.txt"
   bRet = UploadReportCmd(status, error, cmd, FileName)
    msg = "UploadReportCmd = " + boolCheck(bRet) + " status = " + Hex$(status) + " error = " + Hex$(error)
```

Figura 7. Extract code for the operation of the function "UploadReportCmd (LPINT status, LPINT error, LPCSTR cmd, LPCSTR file)"

2.9 BOOL UploadStatusCmd (LPINT status, LPINT error, LPCSTR cmd, LPCSTR file)

Function	Upload Status of the Printer (S1, S2, S3, S4, S5, S6)
Return	Number of Valid Command

```
'////////////////////////////////////////////
'  Subir Satus 1
'////////////////////////////////////////////
    ListOut ("**In Up-Status S1 **")

    cmd = "S1"
    FileName = "Status.txt"
    bRet = UploadStatusCmd(status, error, cmd, FileName)
    msg = "UploadStatusCmd = " + boolCheck(bRet) + " status = " + Hex$(status) + " error = " + Hex$(error)
    ListOut (msg)
```

Figura 8. Extract code for the operation of the function "UploadStatusCmd (LPINT status, LPINT error, LPCSTR cmd, LPCSTR file)"

2.10 BOOL *UploadReportCmdDin (LPINT status, LPINT error, LPCSTR cmd, LPCSTR Cadena)*

Function	Upload Report of the Printer in a dynamic variable

Return	Number of Valid Command in Stand by

2.11 BOOL *UploadStatusCmdDin (LPINT status, LPINT error, LPCSTR cmd, LPCSTR Cadena)*

Function	Upload Status of the Printer in a dynamic variable (S1, S2, S3, S4, S5, S6)
Return	Number of Valid Command in Stand by

3 Reading Status of Printer Command

Note 1: The separator (0Ah) applies when you do the management of this command through direct protocol, nevertheless, for the separator (0Ah) it doesn't appear when it uses the direct form (DLL).

Note 2: Although the pattern of responses from state commands contain STX, ETX and LRC, when dll is used, they are removed and only is returned to aplication what is known as Data.

3.1 Reading Status 1 (S1)

This command allows read from host (PC) the status of the fiscal printer, related to parameters of the printer like serial number, tax identification number and invoice information. This command can be executed in any condition.

Characters position in the command line	1	2	3	4	5
Structure of the Command	STX	'S'	'1'	ETX	LRC

Answer from the fiscal printer

Characters position	1	2 ~ 101	99	100
Structure of the Command	STX	Data	ETX	LRC

Details of the 88 bytes printer answer data:

Since	Until	Length	Type	ITEM
1	2	2	ASCII	Command S1
3	4	2	ASCII	Number of assigned cashier
5	21	17	ASCII	Total of daily sales(14 bytes)
22	29	8	ASCII	Number of last invoice
30	34	5	ASCII	Quantity of invoices during day
35	42	8	ASCII	Number of non-fiscal document
43	47	5	ASCII	Quantity of non-fiscal documents
48	51	4	ASCII	Daily closure counter
52	55	4	ASCII	Audit reports counter
56	66	11	ASCII	RIF
67	76	10	ASCII	Registered number of the machine.
77	82	6	ASCII	Actual time in the printer
83	88	6	ASCII	Actual date in the printer

3.2 Reading Status 2 (S2)

This command allows read from host (PC) the status of the invoice in transaction. If this command is executed without an invoice open the obtained values will be zero.

Characters position in the command line	1	2	3	4	5
Structure of the Command	STX	'S'	'2'	ETX	LRC

Answer of the fiscal printer

Characters position	1	2~ 77	78	79
Structure of the Command	STX	Data	ETX	LRC

Detail of the printer response:

Since	Until	Length	Type	ITEM
1	2	2	ASCII	Command S2
3	3	1	20h	(space character)
4	16	13	ASCII	Taxable bases Sub-Total (13 bytes)
17	17	1	20h	(space character)
18	30	13	ASCII	IVA (Tax) Subtotal
31	31	1	20h	(space character)
32	50	19	ASCII	Data Dummy
51	51	1	20h	(space character)
52	64	13	ASCII	Amount for paying
65	68	4	ASCII	Number of realized payments
69	69	1	ASCII	Condition

3.3 Reading of Status 3 (S3)

This command allows reading from host (PC) the status of the fiscal printer, related to taxes rates and status flag. This command can be executed in any condition

Characters position in the command line	1	2	3	4	5
Structure of the Command	STX	'S'	'3'	ETX	LRC

Answer from fiscal printer

Characters position	1	2 ~ 62	63	64
Structure of the Command	STX	Data	ETX	LRC

Detail of the printer response:

Since	Until	Length	Type	ITEM
1	2	2	ASCII	Command
3	3	1	ASCII	Rate type 1
4	7	4	ASCII	Rate value 1
8	8	1	ASCII	Rate type 2
9	12	4	ASCII	Rate value 2
13	13	1	ASCII	Rate type 3
14	17	4	ASCII	Rate value 3
18	57	40	ASCII	System Flags 1-20 (Every Flag has 2 characters)

3.4 Reading Status 4 (S4)

This command allows reading from host (PC) the status of the fiscal printer, related to the mean of Payment. It is possible to execute this command in any condition.

Characters position in the command line	1	2	3	4	5
Structure of the Command	STX	'S'	'4'	ETX	LRC

Answer from fiscal printer

Characters position	1	2 ~ 178	179	180
Structure of the Command	STX	Data	ETX	LRC

Detail of the printer response:

Since	Until	Length	Type	ITEM
1	2	2	ASCII	Command S4
3	12	10	ASCII	Mean of Payment 1
13	22	10	ASCII	Mean of Payment 2
23	32	10	ASCII	Mean of Payment 3
33	42	10	ASCII	Mean of Payment 4
43	52	10	ASCII	Mean of Payment 5
53	62	10	ASCII	Mean of Payment 6
63	72	10	ASCII	Mean of Payment 7
73	82	10	ASCII	Mean of Payment 8
83	92	10	ASCII	Mean of Payment 9
93	102	10	ASCII	Mean of Payment 10
103	112	10	ASCII	Mean of Payment 11
113	122	10	ASCII	Mean of Payment 12
123	132	10	ASCII	Mean of Payment 13
133	142	10	ASCII	Mean of Payment 14
143	152	10	ASCII	Mean of Payment 15
153	162	10	ASCII	Mean of Payment 16

3.5 Reading Status 5 (S5)

Note: This command is only valid on Samsung Bixolon (SRP-350, SRP-270J), OKI M1120 and Custom Kube printers.

This command allows reading from host (PC) the status of the fiscal printer, related to the status of the Audit Memory. It is possible to execute this command in any condition.

Characters position in the command line	1	2	3	4	5
Structure of the Command	STX	'S'	'5'	ETX	LRC

Answer from fiscal printer

Characters position	1	2 ~ 47	48	49
Structure of the Command	STX	Data	ETX	LRC

Detail of the printer response:

Since	Until	Length	Type	ITEM
1	2	2	ASCII	"S5"
3	13	11	ASCII	RIF
14	23	10	ASCII	Serial
24	27	4	ASCII	Number of Audit Memory
28	31	4	ASCII	Memory Capacity (MB)
32	35	4	ASCII	Free Memory Space (MB)
36	41	6	ASCII	Number of registered documents.

3.6 Reading of X Report

This command (X) allows Redding from host (PC) the status of the Fiscal Printer, about X report. It is possible to execute this command in any condition. In the "PROTOCOL AND COMMANDS MANUAL FOR FISCAL PRINTERS" in section "X & Z Report" describes the fields Type and Mode.

Characters position in the command line	1	2	3	4	5	6
Structure of the Command	STX	CMD	Type	Mode	ETX	LRC

Answer from fiscal printer

Since	Until	Length	Type	ITEM
1	4	4	ASCII	Number of last X Report
5	10	6	ASCII	Date of X Report
11	18	8	ASCII	Number of last invoice
19	24	6	ASCII	Date of last invoice
25	28	4	ASCII	Hour of last invoice
29	38	10	ASCII	Free-Taxes Sales
39	48	10	ASCII	General rate sales (Rate 1)
49	58	10	ASCII	General rate taxes(Rate1)
59	68	10	ASCII	Reduced rate sales (Rate 2)
69	78	10	ASCII	Reduced rate taxes (Rate 2)
79	88	10	ASCII	Additional rate sales (Rate 3)
89	98	10	ASCII	Additional rate taxes (Rate 3)
99	108	10	ASCII	Free-Taxes Devolutions
109	118	10	ASCII	General rate devolution
119	128	10	ASCII	General rate tax devolution
129	138	10	ASCII	Reduced rate devolution
139	148	10	ASCII	Reduced rate tax devolution
149	158	10	ASCII	Additional rate devolution
159	168	10	ASCII	Additional rate tax devolution
169	176	8	ASCII	Number of last credit note

3.7 Reading of Z Report

This command (Z) allows Redding from host (PC) the status of the Fiscal Printer, about Z report. It is possible to execute this command in any condition. In the "PROTOCOL AND COMMANDS MANUAL FOR FISCAL PRINTERS" in section "X & Z Report" describes the fields Type and Mode.

Answer from fiscal printer

Since	Until	Length	Type	ITEM
1	4	4	ASCII	Number of last Z Report
5	10	6	ASCII	Date of Z Report
11	18	8	ASCII	Number of last invoice
19	24	6	ASCII	Date of last invoice
25	28	4	ASCII	Hour of last invoice
29	38	10	ASCII	Free-Taxes Sales
39	48	10	ASCII	General rate sales (Rate 1)
49	58	10	ASCII	General rate taxes(Rate1)
59	68	10	ASCII	Reduced rate sales (Rate 2)
69	78	10	ASCII	Reduced rate taxes (Rate 2)
79	88	10	ASCII	Additional rate sales (Rate 3)
89	98	10	ASCII	Additional rate taxes (Rate 3)
99	108	10	ASCII	Free-Taxes Devolutions
109	118	10	ASCII	General rate devolution
119	128	10	ASCII	General rate tax devolution
129	138	10	ASCII	Reduced rate devolution
139	148	10	ASCII	Reduced rate tax devolution
149	158	10	ASCII	Additional rate devolution
159	168	10	ASCII	Additional rate tax devolution
169	176	8	ASCII	Number of last credit note

4 ANNEXS

Annex 1: Information of Status of the Fiscal Printer.

STATUS		
Return (Hex)	**Return (Decimal)**	**Description**
0	**0**	Unknowed Status
1	**1**	In Non Fiscal Mode and Wait
2	**2**	In Non Fiscal Mode, in Fiscal Transaction
3	**3**	In Non Fiscal Mode, in Non Fiscal Transaction
4	**4**	In Fiscal Mode and Wait
5	**5**	In Fiscal Mode, in Fiscal Transaction
6	**6**	In Fiscal Mode, in Non Fiscal Transaction
7	**7**	In Fiscal Mode, Fiscal Memory Near Full and Wait
8	**8**	In Fiscal Mode, Fiscal Memory Near Full, in Fiscal Transaction
9	**9**	In Fiscal Mode, Fiscal Memory Near Full, in Non Fiscal Transaction
0A	**10**	In Fiscal Mode Memory Full and Wait
0B	**11**	In Fiscal Mode, Memory Full, in Fiscal Transaction
0C	**12**	In Fiscal Mode, Memory Full, in Non Fiscal Transaction

Anexo 2: Information of Fiscal Printer Error

Error			
Return (Hex)	**Return (Decimal)**	**Description**	**Valid / Invalid**
00	**0**	No Error	VALID
01	**1**	End of Paper	VALID
02	**2**	Mechanic Error with Paper	VALID
03	**3**	Ends of Paper and Mechanic Error	VALID
50	**80**	Command Invalid / Invalid Value	INVALID
54	**84**	Invalid Tax	INVALID
58	**88**	No Directives Assigned	INVALID
5C	**92**	Invalid Commando	INVALID
60	**96**	Fiscal Error	INVALID
64	**100**	Memory Fiscal Error	INVALID
6C	**108**	Fiscal Memory Full	INVALID
70	**112**	Buffer Full	INVALID
80	**128**	Communication Error	INVALID
89	**137**	No Answer	INVALID
90	**144**	LRC Error	INVALID
91	**145**	Intern API Error	INVALID
99	**153**	Opening File Error	INVALID