Status Monitor API

for “TM/BA Series Printer Driver for Linux”

(tmx-stmapi-2.0.0)

User Manual

Rev. A

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1. Overview

Status API is a status monitor API for Epson TM printers.

Status API for Linux is a subset of APD4 Status API.

This document describes the difference from APD4 Status API.

Please refer to the APD4 Status API manual also.

1.1. Information that can be acquired from the TM Printer

1.1.1. ASB Status

Information required for the print application, i.e. print completed, offline, out of paper, cover open, power off, error generated, etc. This information is automatically sent to the Status API.

1.1.2. Extended ASB Status

This is the latest TM hybrid model (TM-H6000IV) specific feature.

Additional information required for the print application, i.e., receipt printer offline, slip printer offline, command analyze enabled while offline, etc. This information is automatically sent to the Status API.

1.1.3. Ink ASB Status

This is not supported.

1.1.4. Maintenance Counter

Acquires information, i.e number of feed paper lines, operating count of the auto cutter, running time, etc.

This is used for printer management applications. There are counters that can be reset from Status API and there are integral counters that cannot be reset.

1.2. Development Language

gcc 4.3.3 is required.

g++ 4.3.3 is required.

.NET is not supported.

2. Using Status API

2.1. Install and Uninstall

Status API is installed and uninstalled through a terminal as root user. Below are the commands for installing and uninstalling Status API:

2.1.1. Install

Please execute the install-stmapi.sh script in the package expanded top directory.

Ex)

$ cd ~/Desktop/tmx-stmapi-2.0.0 && ./install-stmapi.sh

2.1.2. Uninstall

Please execute the uninstall-stmapi.sh script in the package expanded top directory.

Ex)

$ cd tmx-stmapi-2.0.0 && ./uninstall-stmapi.sh

2.2. Architecture of the Development Environment

gcc

Below is an example of the development environment architecture using gcc:

1. Extract sample program package "SampleProgram-<release version>.tgz" to any directory
2. Enter sub directory (ex: Program01)
3. Run "make all"

2.3. Types of Status API Functions

2.3.1. Starting/Closing Status API

This is the same as APD4.

2.3.2. Acquiring ASB Status

The following functions are not supported:

a. BiSetStatusBackFunction

b. BiSetStatusBackFunctionEx

c. BiSetStatusBackWnd

New function BiSetStatusBackFunctionEx2 is available. Refer to Chapter 4 for further detail.

Some ASB flags specific to Windows (e.g. ASB_SPOOLER_IS_STOPPED) will be never

returned.

2.3.3. Acquiring and resetting the maintenance counter

This is the same as APD4.

2.3.4. Acquiring the printer information

This is not supported.

2.3.5. Drawer control

This is the same as APD4.

2.3.6. Recovery from a recoverable error

This is not supported.

2.3.7. Printer reset

This is the same as APD4.

2.3.8. Power off pre-process

This is not supported.

2.3.9. Command definition file

This is not supported.

2.3.10. Send the ESC/POS command

The function BiDirectIO is not supported.

Please use BiDirectIOEx.

3. Using the MICR/Scanner

MICR and Scanner are not supported.

3.1. Printing in slip printer on TM-H6000 series

The BiSCNClampPaper function is only available for slip printing.

Before start printing in slip printer on TM-H6000 series, BiSCNClampPaper will be called to clamp paper. After calling BiSCNClampPaper, the following data will be sent to slip printer.

4. StatusAPI References

Below are the supported status APIs in Linux:

4.1. BiOpenMonPrinter

This API is the same as APD4.

4.2. BiCloseMonPrinter

This API is the same as APD4.

4.3. BiLockPrinter

This API is the same as APD4.

4.4. BiUnlockPrinter

This API is the same as APD4.

4.5. BiDirectIOEx

This API is the same as APD4.

4.6. BiResetPrinter

This API is the same as APD4.

4.7. BiGetStatus

This API is the same as APD4.

4.8. BiSetStatusBackFunctionEx2

Behaviour is similar to BiSetStatusBackFunctionEx except that it has a new parameter.

Syntax

INT BiSetStatusBackFunctionEx2(INT nHandle,
INT (CALLBACK *pStatusCB)(DWORD dwStatus, LPVOID lpParam),
LPVOID lpParam)

Argument

nHandle: Specifies the handle. This is an INT type.

INT (CALLBACK *pStatusCB)(DWORD dwStatus, LPVOID lpParam):
Specifies the definition address of the callback function.

dwStatus: Returns the ASB status saved to Status API. The ASB status is a 4 byte configuration. This is a DWORD type.

lpParam: This contains data specified by the user that will be used to handle printer status on callback. This is a LPVOID type.

Return

SUCCESS	Successful end of API call
ERR_HANDLE	Invalid nHandle
ERR_PARAM	Invalid parameter (e.g. pStatusCB is null.)
ERR_EXIST	Registered callback function already exists
ERR_EXEC_FUNCTION	Status API is used by other application or thread.

4.9. BiCancelStatusBack

Behaviour is the same as APD4.

This function cancels the function set by BiSetStatusBackFunctionEx2.

4.10. BiGetCounter

This API is the same as APD4.

The following table shows available counter number for each supported printer model.

If not available counter number is specified, ERR_TIMEOUT will be returned.

Legends: o = available, ‘ ’(blank) = not available

Counter No.	Counter content	Unit	TM-H6000II/H6000III	TM-H6000IV	TM-T70/T70II	TM-T20/T82/T20II/T82II	TM-T88V/T88IV	TM-T90/T90II	TM-U120/U120II/U128	TM-U220	TM-U230	TM-U375	TM-U675	BA-T500/BA-T500II
10	Paper feed line count: Slip	lines	o	o									o	
11	Print character count: Slip(Surface)	characters	o	o									o	
12	Head reciprocating count: Slip(Surface)	times		o										
20	Paper feed line count: Roll paper	lines	o	o	o	o	o	o						
21	Head energizing count: Roll paper	times	o	o	o	o	o	o						
22	Head paper feed line count(Roll paper)	lines		o		o								
40	Head reciprocating count: Slip(Back)	times	o	o										
	Reserved	-											o	
41	Print character count: Slip(Back)	characters	o	o										
	Reserved	-											o	
50	Auto cutter driving count	times	o	o	o	o	o	o					o	
62	Platen/roller open/close mechanism drive count	times		o										
70	Product operation time	time(h)	o	o	o	o	o	o					o	
138	(Accum)Paper feed line count: Slip	lines	o	o									o	
139	(Accum)Print character count: Slip(Surface)	characters	o	o									o	
140	(Accum)Head reciprocating count: Slip(Surface)	times		o										
148	(Accum)Paper feed line count: Roll paper	lines	o	o	o	o	o	o						
149	(Accum)Head energizing count: Roll paper	times	o	o	o	o	o	o						
150	(Accum)Paper feed line count(Roll paper)	lines		o		o								
168	(Accum)Head reciprocating count: Slip(Back)	times	o	o										
	Reserved	-											o	
169	(Accum)Print character count: Slip(Back)	characters	o	o										
	Reserved	-											o	
178	(Accum)Auto cutter driving count	times	o	o	o	o	o	o					o	
190	(Accum)Platen/roller open/close mechanism drive count	times		o										
198	(Accum)Product operation time	time(h)	o	o	o	o	o	o					o	

4.11. BiResetCounter

This API is the same as APD4.

The following table shows available counter number for each supported printer model.

Legends: o = available, ‘ ’(blank) = not available

			TM-H6000II/H6000III	TM-H6000IV	TM-T70/T70II	TM-T20/T82/T20II/T82II	TM-T88V/T88IV	TM-T90/T90II	TM-U120/U120II/U128	TM-U220	TM-U230	TM-U375	TM-U675	BA-T500/BA-T500II
Counter No.	**Counter content**	**Unit**												
10	Paper feed line count: Slip	lines	o	o									o	
11	Print character count: Slip(Surface)	characters	o	o									o	
12	Head reciprocating count: Slip(Surface)	times		o										
20	Paper feed line count: Roll paper	lines	o	o	o	o	o	o						
21	Head energizing count: Roll paper	times	o	o	o	o	o	o						
22	Head paper feed line count(Roll paper)	lines		o		o								
40	Head reciprocating count: Slip(Back)	times	o	o										
	Reserved	-											o	
41	Print character count: Slip(Back)	characters	o	o										
	Reserved	-											o	
50	Auto cutter driving count	times	o	o	o	o	o	o					o	
62	Platen/roller open/close mechanism drive count	times		o										
70	Product operation time	time(h)	o	o	o	o	o	o					o	

4.12. BiOpenDrawer

This API is the same as APD4.

4.13. BiSCNClampPaper

This API is the same as APD4.

Please see also 3.1. Printing in slip printer on TM-H6000 series.

4.14. BiForceResetPrinter

This API is the same as APD4.

4.15. BiGetExtendStatus

This API is the same as APD4.

5. Generating Log Files

The EPSON PCS (Port Communication Service) program will save various driver activity logs in the driver log file.

The log file name is log.txt. By default, it is located at /var/epson_pcs/devicecontrollog.

5.1. Log Files Settings

No tool is provided for setting log file.