

# TM-i Series

# WebConfig API User's Manual

---

## Overview

Describes an overview of WebConfig API.

## Response Body Format

Describes the response body format.

## Reference

Describes how to refer to and change setting values.

## Sample Program

Describes how to use the sample program.

## Cautions

- No part of this document may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of Seiko Epson Corporation.
- The contents of this document are subject to change without notice. Please contact us for the latest information.
- While every precaution has been taken in the preparation of this document, Seiko Epson Corporation assumes no responsibility for errors or omissions.
- Neither is any liability assumed for damages resulting from the use of the information contained herein.
- Neither Seiko Epson Corporation nor its affiliates shall be liable to the purchaser of this product or third parties for damages, losses, costs, or expenses incurred by the purchaser or third parties as a result of: accident, misuse, or abuse of this product or unauthorized modifications, repairs, or alterations to this product, or (excluding the U.S.) failure to strictly comply with Seiko Epson Corporation's operating and maintenance instructions.
- Seiko Epson Corporation shall not be liable against any damages or problems arising from the use of any options or any consumable products other than those designated as Original EPSON Products or EPSON Approved Products by Seiko Epson Corporation.

## Trademarks



Microsoft®, Visual Basic®, Windows, Excel, and Internet Explorer are trademarks of the Microsoft group of companies.

© Seiko Epson Corporation 2012-2023

## For Safety

### Key to Symbols

The symbols in this manual are identified by their level of importance, as defined below. Read the following carefully before handling the product.

	Provides information that must be observed to avoid damage to your equipment or a malfunction.
	Provides important information and useful tips.

## Restriction of Use

When this product is used for applications requiring high reliability/safety such as transportation devices related to aviation, rail, marine, automotive etc.; disaster prevention devices; various safety devices etc; or functional/precision devices etc, you should use this product only after giving consideration to including fail-safes and redundancies into your design to maintain safety and total system reliability. Because this product was not intended for use in applications requiring extremely high reliability/safety such as aerospace equipment, main communication equipment, nuclear power control equipment, or medical equipment related to direct medical care etc, please make your own judgment on this product's suitability after a full evaluation.

# About this Manual

## Aim of the Manual

The aim of this manual is to provide development engineers with the necessary information to develop applications to set and refer to the EPSON TMNet WebConfig for the TM-i series.

The TM-i series in this manual is a generic term for the following printers.

- TM-T88V-i
- TM-T70-i
- TM-T20II-i
- TM-T82II-i
- TM-T83II-i
- TM-L90-i
- TM-U220-i
- TM-U220IIB-i

## Manual Content

The manual is made up of the following sections:

Chapter 1	<a href="#">Overview</a>
Chapter 2	<a href="#">Response Body Format</a>
Chapter 3	<a href="#">Reference</a>
Chapter 4	<a href="#">Sample Program</a>

# Contents

■ For Safety .....	3
Key to Symbols .....	3
■ Restriction of Use .....	3
■ About this Manual .....	4
Aim of the Manual .....	4
Manual Content .....	4
■ Contents.....	5

---

## Overview ..... 7

■ What is WebConfig API? .....	7
Function .....	8
Usable Formats.....	8
■ Supported printers.....	9
TM-i.....	9
TM Printer.....	9
■ Contents in the Package.....	10
Download .....	10
■ Restrictions.....	10

---

## Response Body Format ..... 11

■ Referring to the Set Values of a TM-i .....	11
XML format .....	12
JSON format .....	13
ini format .....	14
■ Changing the Set Values of a TM-i.....	15
XML format .....	16
JSON format .....	17
ini format .....	18

---

## Reference ..... 19

■ Referring to Set Values.....	19
Wired LAN .....	19
Wireless LAN .....	20
Device .....	21
Searching TM printers .....	24
Spooler .....	25
Web Contents Updater.....	27
Server Direct Print .....	30
Status Notification .....	31
Device Data Notification .....	32
Certificates .....	34

Proxy .....	35
Administrator and Location .....	35
Time of Day .....	36
Password.....	36
SSL.....	37
<b>■ Changing the Set Values.....</b>	<b>38</b>
Common .....	38
Wired LAN.....	38
Wireless LAN .....	39
Adding a TM Printer.....	42
Deleting a TM Printer .....	43
Setting a Customer Display .....	43
Adding a key input device .....	44
Deleting a key input device.....	44
Setting a Serial Communication Device .....	45
Setting a TM printer .....	46
Spooler.....	48
Web Contents Updater .....	51
Automatic Update .....	52
Server Direct Print .....	53
Status Notification .....	54
Device Data Notification .....	55
Certificate .....	56
Proxy.....	57
Administrator and Location .....	58
Time of Day .....	58
Password.....	59
SSL.....	59
Resetting and Initializing the Settings.....	59
<b>■ Error Codes and Actions to Take .....</b>	<b>60</b>
 <b>Sample Program.....</b>	 <b>65</b>
<b>■ Screen .....</b>	<b>65</b>
<b>■ Operating Environment .....</b>	<b>66</b>
<b>■ Basic Usage of the Sample Program.....</b>	<b>67</b>
<b>■ Uploading Web Contents .....</b>	<b>71</b>
<b>■ Uploading Server Authentication Certificate .....</b>	<b>72</b>
<b>■ Uploading SSL Certificate .....</b>	<b>73</b>
Register the SSL setting files (without Certificate Chain file).....	73
Register the SSL setting files (with Certificate Chain file) .....	74

# Overview

## What is WebConfig API?

WebConfig API is an API for setting and referencing the EPSON TMNet WebConfig of the TM-i series. You can use it by including it in your application. This function can be used in the TM-i firmware Ver.2.x or later.

The EPSON TMNet WebConfig of the TM-i series (and of a TM printer\* registered in the TM-i series) can be referenced or set up from the client's application.

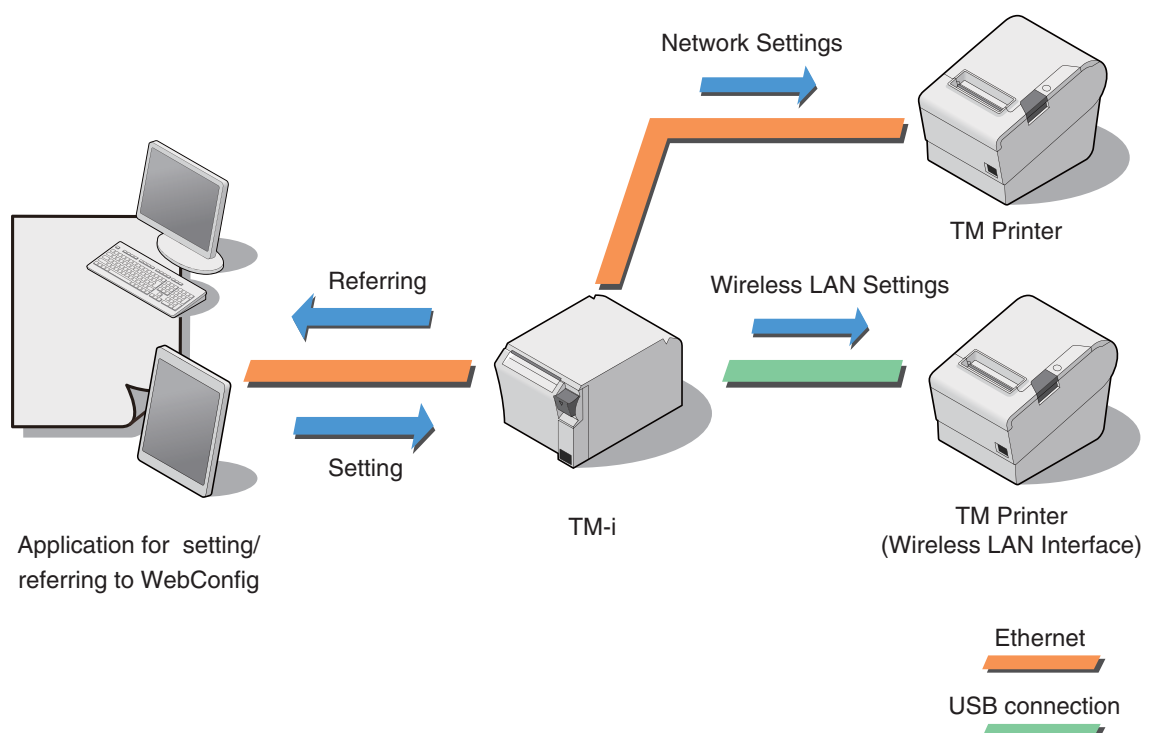
Setting work has been streamlined for TM printers with a UB-R03 interface because wireless LAN settings can be performed by connecting a USB.

With TM printer models used with Ethernet, being able to set the IP address and other network settings via the network makes for more efficient setting work.

\*: TM-i firmware Ver.3.x or later



- Do not use the WebConfig API if you are directly setting or referring to the EPSON TMNet WebConfig settings of TM-i from a browser on a computer.
- The WebConfig API cannot be used to set or reference the memory switches (customized values) of a TM-i or TM printer.
- For the functions of EPSON TMNet WebConfig, refer to the detailed manual for each printer.



## Function

- ❑ Allows getting/setting values of the EPSON TMNet WebConfig of TM-i from HTTP and HTTPS \* supported devices. Not OS-dependent.
- ❑ Allows an application to refer to the set values of the EPSON TMNet WebConfig of TM printer using the GET method (hereafter "GET") defined in HTTP (HyperText Transfer Protocol).
- ❑ Allows an application to change the set values of the EPSON TMNet WebConfig of TM printer using the POST method (hereafter "POST") defined in HTTP (HyperText Transfer Protocol).
- ❑ The sample program is equipped with the following functions.
  - Referencing and setting of the EPSON TMNet WebConfig for a TM-i using the WebConfig API
  - Registration of web content to a TM-i using HTTP functions
  - Registration of certificates to a TM-i using HTTP functions

\*: TM-i Firmware Ver.4.3 or later

## Usable Formats

- html : HyperText Markup Language
- xml : Extensible Markup Language
- json : JavaScript Object Notation
- ini : Text file format mainly used in a Windows OS environment



# Supported printers

## TM-i

TM-i refers to EpsonNet WebConfig setting values. These values can be changed.

- TM-T88V-i
- TM-T70-i
- TM-T20II-i
- TM-T82II-i
- TM-T83II-i
- TM-L90-i
- TM-U220-i
- TM-U220IIB-i

## TM Printer

The TM printer refers to network setting values. These values can be changed.

Available TM printers are different depending on the version of the TM-i firmware installed in the product.

For details, refer to the Technical Reference Guide for each printer.

# Contents in the Package

---

## **Manual**

- TM-i Series WebConfig API User's Manual (This Document)
- TM-T88V-i Technical Reference Guide
- TM-T70-i Technical Reference Guide
- TM-T20II-i Technical Reference Guide
- TM-T82II-i Technical Reference Guide
- TM-T83II-i Technical Reference Guide
- TM-L90-i Technical Reference Guide
- TM-U220-i Technical Reference Guide
- TM-U220IIB-i Technical Reference Guide

---

## **Sample Program**

WebConfigAPISample\_Verx.xx.zip

## **Download**

For customers in North America, go to the following web site:

<https://www.epson.com/support/>

For customers in other countries, go to the following web site:

<https://epson.sn>

## **Restrictions**

- Web contents (zip file) and a certificate cannot be manually uploaded by using WebConfig API.
- To enable manual uploading of Web contents (zip file) and a certificate, file upload functionality used by applications as standard should be programmed.  
(Manual uploading functionality is embedded in the sample program. Refer to the sample program.)

# Response Body Format

An application can specify the format for the response body to be returned when using GET or POST for a TM-i.

## Referring to the Set Values of a TM-i

An application (e.g. JavaScript or excel macro) can refer to the set values of a TM-i by executing GET for the following URL:

```
http://%IP Address%/PrinterConfigurationPage/%SettingUrl%?format=[html | xml | json | ini]
```

For TM-i firmware Ver. 4.x or later, use the following URL.

```
http://%IP Address%/webconfig/%SettingUrl%?format=[html | xml | json | ini]
```

- ❑ IP Address : The IP address of the TM-i whose set values to be acquired
- ❑ SettingUrl : The URL of the set values to be acquired
- ❑ format : Specifies the format of the response body to be returned by the TM-i
  - html : HTML format (the same operation as the operation performed when viewing EPSON TMNet WebConfig by using a browser)
  - xml : XML format
  - json : JSON format
  - ini : ini format



- If a password is set for EPSON TMNet WebConfig/ WebConfig API, at the time of access to the above URL, the user name (epson-specific) and password strings will be requested through digest authentication.
- Refer to the printer's Technical Reference Guide for the initial administrator password.
- For SettingUrl and values, refer to Chapter 3 "[Reference](#)".
- To use WebConfig API from XMLHttpRequest in JavaScript, register the Web page where the JavaScript code is written, to the TM-i as Web contents.

## XML format

```
<?xml version="1.0" encoding="UTF-8"?>
<epos-utility xmlns="http://www.epson-pos.com/schemas/2012/02/epos-utility">
  <response success="true"/>
  <%Category%>
    <%Key1%>%Value1%</%Key1%>
    <%Key2%>%Value1%</%Key2%>
    <%Key3%>%Value1%</%Key3%>
    .
    .
  </%Category%>
</epos-utility>
```

The above keys are in no particular order.

*Response body (Example : config\_tcpip\_wired.cgi)*

```
<?xml version="1.0" encoding="UTF-8"?>
<epos-utility xmlns="http://www.epson-pos.com/schemas/2012/02/epos-utility">
  <response success="true" />
  <WiredNetwork>
    <IPAddressSettingMethod>Auto</IPAddressSettingMethod>
    <APIPA>Enable</APIPA>
    <IPAddress>192.168.192.168</IPAddress>
    <Netmask>255.255.255.0</Netmask>
    <Gateway>192.168.192.1</Gateway>
    <DNSServerSettingMethod>Auto</DNSServerSettingMethod>
    <DNSServerIPAddress1>192.168.192.1</DNSServerIPAddress1>
    <DNSServerIPAddress2>192.168.192.1</DNSServerIPAddress2>
    <DNSServerIPAddress3>192.168.192.1</DNSServerIPAddress3>
  </WiredNetwork>
</epos-utility>
```

## JSON format

```
{ "response" :  
  {  
    "success" : "true"  
  },  
  "%Category%" :  
  {  
    "%Key1%" : "%Value1%",  
    "%Key2%" : "%Value2%",  
    "%Key3%" : "%Value3%",  
  }  
}
```

The above keys are in no particular order.

*Response body (Example : config\_tcpip\_wired.cgi)*

```
{ "response" :  
  {  
    "success" : "true"  
  },  
  "WiredNetwork" :  
  {  
    "IPAddressSettingMethod" : "Auto",  
    "APIPA" : "Enable",  
    "IPAddress" : "192.168.192.168",  
    "Netmask" : "255.255.255.0",  
    "Gateway" : "192.168.192.1",  
    "DNSServerSettingMethod" : "Auto",  
    "DNSServerIPAddress1" : "192.168.192.1",  
    "DNSServerIPAddress2" : "192.168.192.1",  
    "DNSServerIPAddress3" : "192.168.192.1"  
  }  
}
```

## ini format

```
[response]
success="true"
[%Category%]
%Key1%="%Value1%"
%Key2%="%Value2%"
%Key3%="%Value3%"
.
.
```

The above keys are in no particular order.

*Response body (Example : config\_tcpip\_wired.cgi)*

```
[response]
success="true"
[WiredNetwork]
IPAddressSettingMethod="Auto"
APIPA="Enable"
IPAddress="192.168.192.168"
Netmask="255.255.255.0"
Gateway="192.168.192.1"
DNSServerSettingMethod="Auto"
DNSServerIPAddress1="192.168.192.1"
DNSServerIPAddress2="192.168.192.1"
DNSServerIPAddress3="192.168.192.1"
```

## Changing the Set Values of a TM-i

An application (e.g. JavaScript or excel macro) can change the set values of a TM-i by executing POST for the following URL:

Execute POST after putting the set value you want to change and the set value after change into the POST parameter.

**`http://%IP Address%/PrinterConfigurationPage/%SettingUrl%?format=[html | xml | json | ini]`**

For TM-i firmware Ver. 4.x or later, use the following URL.

**`http://%IP Address%/webconfig/%SettingUrl%?format=[html | xml | json | ini]`**

- IP Address : The IP address of the TM-i whose set values to be acquired
- SettingUrl : The URL of the set value to be changed
- format : Specifies the format of the response body to be returned by the TM-i
  - html : HTML format (the same operation as the operation performed when viewing EPSON TMNet WebConfig by using a browser)
  - xml : XML format
  - json : JSON format
  - ini : ini format



- If a password is set for EPSON TMNet WebConfig / WebConfig API, at the time of access to the above URL, the user name (epson-specific) and password strings will be requested through digest authentication.
- Refer to the printer's Technical Reference Guide for the initial administrator password.
- For SettingUrl and values, refer to Chapter 3 "[Reference](#)".
- To use WebConfig API from XMLHttpRequest in JavaScript, register the Web page where the JavaScript code is written, to the TM-i as Web contents.

## XML format

```
<?xml version="1.0" encoding="UTF-8"?>
<epos-utility xmlns="http://www.epson-pos.com/schemas/2012/02/epos-utility">
  <response success="%Result%" code="%Reason%" />
</epos-utility>
```

This portion is added when response fails.

*Response body (Example : set\_tcpip\_wired.cgi)*

### When response is successful

```
<epos-utility xmlns="http://www.epson-pos.com/schemas/2012/02/epos-utility">
  <response success="true"/>
</epos-utility>
```

### When response fails

```
<epos-utility xmlns="http://www.epson-pos.com/schemas/2012/02/epos-utility">
  <response success="false" code="InvalidIPAddress" />
</epos-utility>
```



For details on an error code when response fails, see ["Error Codes and Actions to Take" on page 60](#).



## JSON format

```
{ "response" :  
  {  
    "success" : "%Result%",  
    "code" : "%Reason%"  
  }  
}
```

This portion is added when response fails.

*Response body (Example : set\_tcpip\_wired.cgi)*

### When response is successful

```
{ "response" :  
  {  
    "success" : "true"  
  }  
}
```

### When response fails

```
{ "response" :  
  {  
    "success" : "false",  
    "code" : "InvalidIPAddress"  
  }  
}
```



For details on an error code when response fails, see ["Error Codes and Actions to Take" on page 60](#).

## ini format

```
[response]
success="%Result%"
code="%Reason%"
```

————— This portion is added when response fails.

*Response body (Example : set\_tcpip\_wired.cgi)*

### When response is successful

```
[response]
success="true"
```

### When response fails

```
[response]
success="false"
code="InvalidIPAddress"
```



For details on an error code when response fails, see ["Error Codes and Actions to Take" on page 60](#).

# Reference

## Referring to Set Values

### Wired LAN

#### General

SettingUrl : *config\_general\_wired.cgi*

Refers to the link speed of the wired LAN.

Category	Key	Value	Description
WiredLinkLayer	LinkSpeed		Refers to the link speed.
		10BaseTHalf	10BaseT half duplex
		10BaseTFull	10BaseT full duplex
		100BaseTHalf	100BaseT half duplex
		100BaseTFull	100BaseT full duplex
		AutoNegotiation	Auto-negotiation

#### TCP/IP

SettingUrl : *config\_tcpip\_wired.cgi*

Refers to the IP address, etc. of the wired LAN.

Category	Key	Value	Description
WiredNetwork	IPAddressSettingMethod		Refers to the IP address setting method.
		Auto	Auto
		Manual	Manual
	APIPA		Refers to whether to enable or disable APIPA.
		Enable	Enable
		Disable	Disable
	IPAddress	(String)	Refers to the IP address.
	SubnetMask	(String)	Refers to the subnet mask.
	Gateway	(String)	Refers to the default gateway.
	DNSServerSettingMethod		Refers to the DNS server IP address setting method.
		Auto	Auto
		Manual	Manual
	DNSServerIPAddress1	(String)	Refers to DNS server IP address 1.
	DNSServerIPAddress2	(String)	Refers to DNS server IP address 2.
	DNSServerIPAddress3	(String)	Refers to DNS server IP address 3.

## Wireless LAN

### General

SettingUrl : *config\_general\_wireless.cgi*

Refers to the SSID, etc. of the wireless LAN.

Category	Key	Value	Description
WiredLinkLayer	NetworkMode		Refers to the network mode.
		Infrastructure	Infrastructure mode
		Adhoc	Adhoc mode
	SSID	(String)	Refers to the SSID.
	AdhocChannel	(String)	Refers to the AdhocChannel.
	CommunicationStandard		Refers to the communication standard.
		802.11b/g	802.11b/g
		802.11b/g/n	802.11b/g/n
	AuthenticationMethod		Refers to the authentication method.
		OpenSystem	OpenSystem
		SharedKey	SharedKey
		WPAPSK	WPAPSK
		WPA2PSK	WPA2PSK
	EncryptionMethod		Refers to the encryption method.
		None	No encryption
		WEP	WEP
		TKIP	TKIP
		AES	AES
	DefaultWEPKey		Refers to the WEP key to be used.
		WEPKey1	WEP key 1
		WEPKey2	WEP key 2
		WEPKey3	WEP key 3
		WEPKey4	WEP key 4
	WEPKey1	(String)	Refers to WEP key 1.
	WEPKey2	(String)	Refers to WEP key 2.
	WEPKey3	(String)	Refers to WEP key 3.
	WEPKey4	(String)	Refers to WEP key 4.
	PresharedKey	(String)	Refers to the pre-shared key.

**TCP/IP**

SettingUrl : *config\_tcpip\_wireless.cgi*

Refers to the IP address, etc. of the wireless LAN.

Category	Key	Value	Description
WirelessNetwork	IPAddressSettingMethod		Refers to the IP address setting method.
		Auto	Auto
		Manual	Manual
	APIPA		Refers to whether to enable or disable APIPA.
		Enable	Enable
		Disable	Disable
	IPAddress	(String)	Refers to the IP address.
	SubnetMask	(String)	Refers to the subnet mask.
	Gateway	(String)	Refers to the default gateway.
	DNSServerSettingMethod		Refers to the DNS server IP address setting method.
		Auto	Auto
		Manual	Manual
	DNSServerIPAddress1	(String)	Refers to DNS server IP address 1.
	DNSServerIPAddress2	(String)	Refers to DNS server IP address 2.
	DNSServerIPAddress3	(String)	Refers to DNS server IP address 3.

**Device**

SettingUrl : *config\_epos\_print.cgi*

Refers to the Device ID and device information of registered device.

Category	Key	Value	Description
Devices-%DeviceID%			Refers to the device ID by turning it into the string "Devices-% Device ID%". As many values for Category, Model, IPAddress, and RetryInterval as registered devices will be returned from the TM-i.
	Model	(String)	Refers to the device model.
	IPAddress	(String)	Refers to the IP address.
	RetryInterval	(String)	Refers to the communication retry interval (in milliseconds).

*SettingUrl : config\_epos\_display.cgi*

Refers to communication settings for customer displays.

Category	Key	Value	Description
Devices-local_display	Baudrate		Refers to the communication speed.
		2400	2400 bps
		4800	4800 bps
		9600	9600 bps
		19200	19200 bps
		38400	38400 bps
		57600	57600 bps
		115200	115200 bps
	Databit		Refers to the data bit.
		7	7 bits
		8	8 bits
	Parity		Refers to the parity.
		None	None
		Even	Even
		Odd	Odd
	Brightness		Refers to the brightness.
		100	100%
		60	60%
		40	40%
		20	20%
	Use		Refers to whether customer displays are used.
		Enable	Enable
		Disable	Disable

*SettingUrl : config\_epos\_key\_input\_device.cgi*

References the device ID and device information for all key input devices that are registered.

Category	Key	Value	Description
Devices- "Device ID of key input device" (Example) Devices-local_keyboard			
	DeviceName	(String)	Refers to the device name.
	VID	(String)	Refers to vendor ID (4-digit hexadecimal value).
	PID	(String)	Refers to product ID (4-digit hexadecimal value).
	ControlScript	(String)	Refers to file name of a control script to be used.

*SettingUrl : config\_epos\_serial.cgi*

Refers to the communication settings of registered serial communication devices.

If the TM-i specifications do not include a serial port, this does not refer.

Category	Key	Value	Description
Devices-"Serial Communication DeviceID" (Example) Devices-local_serial			
	Use		Refers to whether a serial communication device is used.
		Enable	Enable
		Disable	Disable
	Baudrate		Refers to the communication speed.
		2400	2400 bps
		4800	4800 bps
		9600	9600 bps
		19200	19200 bps
		38400	38400 bps
		57600	57600 bps
		115200	115200 bps
	Databit		Refers to the data bit.
		7	7 bits
		8	8 bits
	Parity		Refers to the parity.
		None	None
		Even	Even
		Odd	Odd
	Stopbit		Refers to the stop bit.
		1	1 bit
		1.5	1.5 bit
		2	2 bit
	FlowControl		Refers to the flow control.
		XOnXOff	XOnXOff
		Hardware	Hardware
		None	None

## Searching TM printers

*SettingUrl : search\_devices.cgi*

Refers to the settings of TM printers connected to the TM-i.

Generates a NetworkPrinter-n category for each printer detected, enabling referencing of the network settings for those printers.



Referencing is possible under the following conditions.

- TM-i and TM printers are connected to the same subnet network by a LAN cable. (Referencing is not possible if the TM-i and TM printers are connected by a wireless LAN.)
- A TM-i printer and wireless LAN interface with a USB connector of a TM printer are connected by USB. (UB-R03)

Category	Key	Value	Description
NetworkPrinter-n			Refer to detected printers with the character string, "NetworkPrinter-n". ("n" is a number applied in the order the printers were detected in.)
	Model	(String)	Refers to the device model.
	IPAddress	(String)	Refers to the IP address.
	MACAddress	(String)	Refers to the MAC address.
	Connection		Refers to the detected printer's connection status.
		Wired	Detects a wired LAN connection printer on the LAN.
		Wireless	Detects a wireless LAN connection printer on the LAN.
		USB	Detects a wireless LAN connection printer via USB connection.
	IPAddressSettingMethod		Refers to the IP address setting method.
		Auto	Auto
		Manual	Manual
	APIPA		Refers to whether to enable or disable APIPA.
		Enable	Enable
		Disable	Disable
	SubnetMask	(String)	Refers to the subnet mask.
	Gateway	(String)	Refers to the default gateway.
	NetworkMode		Refers to the network mode.
		Infrastructure	Infrastructure mode
		Adhoc	Adhoc mode
	SSID	(String)	Refers to the SSID.
	AdhocChannel	(String)	Refers to the AdhocChannel.



Category	Key	Value	Description
NetworkPrinter-n	CommunicationStandard		Refers to the communication standard.
		802.11b	802.11b
		802.11b/g	802.11b/g
		802.11b/g/n	802.11b/g/n
	AuthenticationMethod		Refers to the authentication method.
		OpenSystem	OpenSystem
		SharedKey	SharedKey
		WPAPSK	WPAPSK
	EncryptionMethod		Refers to the encryption method.
		None	No encryption
		WEP	WEP
		TKIP	TKIP
		AES	AES
	DefaultWEPKey		Refers to the WEP key to be used.
		WEPKey1	WEP key 1
		WEPKey2	WEP key 2
		WEPKey3	WEP key 3
		WEPKey4	WEP key 4

## Spooler



This function is supported for TM-i (TM-i firmware Ver.4.1 or later).

### Operation settings

SettingUrl : *config\_epos\_print\_spooler.cgi*

References the operation settings for the job spooler.

Category	Key	Value	Description
PrintSpooler	Use		Refers to whether to enable or disable spooler. If this setting cannot be acquired, the setting becomes "Disable".
		Enable	Enable
		Disable	Disable
	RetryInterval	(String)	Refers a value in seconds for the retry interval of communication.
	RetryCount	(String)	Refers to retry count of communication.

**Forwarding settings**

SettingUrl : `config_print_forwarding.cgi`

References the print forwarding settings for the job spooler.

Category	Key	Value	Description
PrintForwarding	Message	(String)	References the character string in the notification message printed during forwarding processing.
	Bold		Refers to whether to enable or disable character decoration (Bold). If this setting cannot be acquired, the setting becomes "Disable".
		Enable	Enable
		Disable	Disable
	Underline		Refers to whether to enable or disable character decoration (Underline). If this setting cannot be acquired, the setting becomes "Disable".
		Enable	Enable
		Disable	Disable
	DoubleWidth		Refers to whether to enable or disable character decoration (Double Width). If this setting cannot be acquired, the setting becomes "Disable".
		Enable	Enable
		Disable	Disable
	DoubleHeight		Refers to whether to enable or disable character decoration (Double Height). If this setting cannot be acquired, the setting becomes "Disable".
		Enable	Enable
		Disable	Disable
	Reverse		Refers to whether to enable or disable character decoration (Reverse black and white). If this setting cannot be acquired, the setting becomes "Disable".
		Enable	Enable
		Disable	Disable
	UpsideDown		Refers to whether to enable or disable character decoration (Upside Down). If this setting cannot be acquired, the setting becomes "Disable".
		Enable	Enable
		Disable	Disable
	Position		References the position where the notification message is printed. If this setting cannot be acquired, the setting becomes "Top".
		Top	Before the print data
		Bottom	After the print data

Category	Key	Value	Description
PrintForwarding	Cut		References whether the paper is to be cut after the notification message is printed. If this setting cannot be acquired, the setting becomes "Disable".
		Enable	Enable
		Disable	Disable
Devices-"Device IDs of candidate printers" (Example) Devices-local_printer			
	Candidate1	(String)	References the device ID of the candidate printers for forwarding.
	Candidate2	(String)	References the device ID of the candidate printers for forwarding. If only one candidate printer has been set, null characters will appear here.

## Web Contents Updater

*SettingUrl : config\_web\_contents\_updater.cgi*

Refers to the Web contents update setting.

Category	Key	Value	Description
WebContents	AutoUpdate		Refers to whether to automatically update the Web contents.
		Enable	Enable
		Disable	Disable
	Frequency		Refers to the frequency of automatic update.
		Hour	Updates at specified time intervals.
		Daily	Updates daily, at the specified time of day.
		Weekly	Updates weekly, on the specified day of the week and at the specified time of day.
		Monthly	Updates monthly, on the specified day and at the specified time of day.
	Timing		Refers to the timing of automatic update. The return value varies depending on the value for Frequency.
	(When Frequency=Hour)	(String)	Refers to the interval of automatic update.
	(When Frequency=Daily)		A blank character is returned.

Category	Key	Value	Description
WebContents	(When Frequency=Weekly)	Sunday	Updates every Sunday.
		Monday	Updates every Monday.
		Tuesday	Updates every Tuesday.
		Wednesday	Updates every Wednesday.
		Thursday	Updates every Thursday.
		Friday	Updates every Friday.
		Saturday	Updates every Saturday.
	(When Frequency=Monthly)	(String)	Refers to the day to perform automatic update.
	UpdateTimeHour	(String)	Refers to the hour of the time of day to perform automatic update. When Frequency=Hour, an empty character is returned.
	UpdateTimeMinute	(String)	Refers to the minute of the time of day to perform automatic update. When Frequency=Hour, an empty character is returned.
	FileURL	(String)	Refers to the URL of the Web contents file.
	UseProxy		Refers to whether to use a proxy server at the time of automatic update.
			Enable
			Disable
	ProxyURL	(String)	Refers to the URL of the proxy server.
	LastUpdateYear	(String)	Refers to the year automatic update was performed last.
	LastUpdateMonth	(String)	Refers to the month automatic update was performed last.
	LastUpdateDay	(String)	Refers to the day automatic update was performed last.
	LastUpdateHour	(String)	Refers to the hour of the time automatic update was performed last.
	LastUpdateMinute	(String)	Refers to the minute of the time automatic update was performed last.
	LastUpdateResultCode	(String)	Refers to the results of the last automatic update as a numeric value.
	LastUpdateResultMessage	(String)	Refers to the results of the last automatic update as a message string.
	LastUpdateSecond	(String)	Refers to the second of the time automatic update was performed last.

Category	Key	Value	Description
WebContents	ServerAuthentication		Refers to whether server authentication is used. If this authentication cannot be acquired, the setting becomes "Disable".
		Enable	Enable
		Disable	Disable
	ID	(String)	Refers to the ID for web content updates.
	Password	(String)	Refers to the password for web content updates.

*SettingUrl : config\_web\_contents\_storage.cgi*

Refers to PHP settings.

Category	Key	Value	Description
WebContentsStorage	microSDAvailable		Refers to whether micro SD card is installed.
		Enable	Micro SD card is installed.
		Disable	Micro SD card is not installed.
	FreeSpace	(String)	Refers to the micro SD card's free space, in units of MB (megabytes). If micro SD card is not installed, null characters will be shown.
	PHP		Refers to whether to enable or disable PHP.
		Enable	Enable
		Disable	Disable
	WebContentsStorage		Refers to the destination that the web contents will be stored to.
		Printer	Web contents will be stored to the printer itself.
		microSD	Web contents will be stored to the micro SD card.

## Server Direct Print

SettingUrl : *config\_server\_direct\_print.cgi*

Refers to Server Direct Print setting values.

Category	Key	Value	Description
ServerDirectPrint	Use		Refers to whether Server Direct Print is used.
		Enable	Enable
		Disable	Disable
	ID	(String)	Refers to the ID for server direct print.
	Password	(String)	Refers to the password for server direct print.
	URL	(String)	Refers to the acquisition destination URL for printed data.
	Interval	(String)	Designates a value in seconds for the standby time from the completion of acquisition of print data until acquisition of the next print data.
	URL1	(String)	Refers to the acquisition destination URL for printed data.
	Interval1	(String)	Designates a value in seconds for the standby time from the completion of acquisition of print data until acquisition of the next print data.
	URL2	(String)	Refers to the acquisition destination URL for printed data.
	Interval2	(String)	Designates a value in seconds for the standby time from the completion of acquisition of print data until acquisition of the next print data.
	URL3	(String)	Refers to the acquisition destination URL for printed data.
	Interval3	(String)	Designates a value in seconds for the standby time from the completion of acquisition of print data until acquisition of the next print data.
	ServerAuthentication		Refers to whether server authentication is used. If this authentication cannot be acquired, the setting becomes "Disable".
			Enable
			Disable

Status Notification

SettingUrl : *config\_status\_notification.cgi*

Refers to status notification setting.

Category	Key	Value	Description
StatusNotification	Use		Refers to whether the status notification function is used.
		Enable	Enable
		Disable	Disable
	ID	(String)	Refers to the ID for status notification.
	Password	(String)	Refers to the password for status notification.
	URL	(String)	Refers to the notification destination URL for status.
	Interval	(String)	Refers to the standby time in seconds from the completion of a status notification until the next notification is sent.
	ServerAuthentication		Refers to whether server authentication is used. If this authentication cannot be acquired, the setting becomes "Disable".
			Enable
			Disable

## Device Data Notification



This function is supported for TM-i (TM-i firmware Ver.4.1 or later).

*SettingUrl : config\_device\_data\_notification.cgi*

References the notification settings for device data.

Category	Key	Value	Description
DeviceData Notification	Use		Refers to whether Device Data Notification is used.
		Enable	Enable
		Disable	Disable
	ID	(String)	Refers to the ID for device data notification.
	Password	(String)	Refers to the password for device data notification.
	URL	(String)	Refers to the notification destination URL for notification.
	ServerAuthentication		Refers to whether server authentication is used. If this authentication cannot be acquired, the setting becomes "Disable".
			Enable
			Disable
	Box ID	(String)	Refers to the Box ID of the communication box.
	PrintError		References whether a notification message is to be printed when a device data notification error occurs. If this settings cannot be acquired, the setting becomes "Disable".
			Enable
			Disable
	ErrorMessage	(String)	References the character string in the notification message.
	Bold		Refers to whether to enable or disable character decoration (Bold). If this setting cannot be acquired, the setting becomes "Disable".
			Enable
			Disable
	Underline		Refers to whether to enable or disable character decoration (Underline). If this setting cannot be acquired, the setting becomes "Disable".
			Enable
			Disable



Category	Key	Value	Description
DeviceData Notification	DoubleWidth		Refers to whether to enable or disable character decoration (Double Width). If this setting cannot be acquired, the setting becomes "Disable".
		Enable	Enable
		Disable	Disable
	DoubleHeight		Refers to whether to enable or disable character decoration (Double Height). If this setting cannot be acquired, the setting becomes "Disable".
		Enable	Enable
		Disable	Disable
	Reverse		Refers to whether to enable or disable character decoration (Reverse black and white). If this setting cannot be acquired, the setting becomes "Disable".
		Enable	Enable
		Disable	Disable
	UpsideDown		Refers to whether to enable or disable character decoration (Upside Down). If this setting cannot be acquired, the setting becomes "Disable".
		Enable	Enable
		Disable	Disable
	Cut		References whether the paper is to be cut after the notification message is printed. If this setting cannot be acquired, the setting becomes "Disable".
		Enable	Enable
		Disable	Disable
	Devices-"Registered Device ID" (Example) Devices-local_scanner		Returns all the device IDs registered.
		Enable	Use device data notification
		Disable	Not use device data notification

## Certificates

*SettingUrl* : *listup\_certificates.cgi*

Refers to a list of all certificates installed in TM-i.

Category	Key	Value	Description
Certificate-%X%(1 <= %X%)	ValidFromYear	(String)	Refers to valid period (start year).
	ValidFromMonth	(String)	Refers to valid period (start month).
	ValidFromDay	(String)	Refers to valid period (start day).
	ValidFromHour	(String)	Refers to valid period (start hour).
	ValidFromMinute	(String)	Refers to valid period (start minute).
	ValidFromSecond	(String)	Refers to valid period (start second).
	ValidUntilYear	(String)	Refers to valid period (end year).
	ValidUntilMonth	(String)	Refers to valid period (end month).
	ValidUntilDay	(String)	Refers to valid period (end day).
	ValidUntilHour	(String)	Refers to valid period (end hour).
	ValidUntilMinute	(String)	Refers to valid period (end minute).
	ValidUntilSecond	(String)	Refers to valid period (end second).
	FileDigest	(String)	Refers to the hash value of the certificate.
	issuer	(String)	Refers to the person who issued the certificate.
	issuedTo	(String)	Refers to the issue destination for the certificate.

## Proxy

*SettingUrl : config\_proxy.cgi*

Refers to setting information for the proxy.

Category	Key	Value	Description
Proxy	ID	(String)	Refers to an ID for proxy authentication.
	Password	(String)	Refers to the password for proxy authentication.
	UseProxyServerDirectPrint		Refers to whether a proxy is used for Server Direct Print.
	Enable		Enable
	Disable		Disable
	UseProxyStatusNotification		Refers to whether a proxy is used in status notifications.
	Enable		Enable
	Disable		Disable
	UseProxyDeviceDataNotification		Refers to whether a proxy is used in device data notifications.
	Enable		Enable
	Disable		Disable
	UseProxyWebContentsUpdate		Refers to whether a proxy is used for automatic updating of web content.
	Enable		Enable
	Disable		Disable
	ProxyURL	(String)	Refers to the proxy URL.

## Administrator and Location

*SettingUrl : config\_administrator.cgi*

Refers to the administrator information.

Category	Key	Value	Description
General	Administrator	(String)	Refers to the string that designates the administrator.
	Location	(String)	Refers to the string that designates the location.

## Time of Day

*SettingUrl : config\_time.cgi*

Refers to the time-of-day setting.

Category	Key	Value	Description
Time	Year	(String)	Refers to the year of the internal clock of the TM-i.
	Month	(String)	Refers to the month of the internal clock of the TM-i.
	Day	(String)	Refers to the day of the internal clock of the TM-i.
	Hour	(String)	Refers to the hour of the time of the internal clock of the TM-i.
	Minute	(String)	Refers to the minute of the time of the internal clock of the TM-i.
	UseTimeServer		Refers to whether to enable or disable the clock alignment by the time server.
	Enable		Enable
	Disable		Disable
	TimeServerSettingMethod		Refers to the time server name acquisition method.
	Auto		Auto
	Manual		Manual
	TimeServer		Refers to the time server name.
	LastUpdateResult		Displays the results of the last time-of-day acquisition synchronized with the time server.
	Success		Time-of-day synchronization with the time server was successful.
	Failure		Time-of-day synchronization with the time server failed.
	-		Time-of-day synchronization not done.
	TimeZone		Refers to the time zone.

## Password

*SettingUrl : config\_password.cgi*

Refers to the set password.

Category	Key	Value	Description
Password	PasswordMD5	(String)	Refers to the string created from the password string through MD5 encryption.

## SSL



This function is supported for TM-i (TM-i firmware Ver.4.3 or later).

SettingUrl : *config\_ssl.cgi*

Refers to the information of SSL settings.

Category	Key	Value	Description
SSL	Use		Refers to whether SSL is used.
		Enable	Enable
		Disable	Disable
	DomainName	(String)	Refers to the domain name.
	ValidFromYear	(String)	Refers to valid period (start year).
	ValidFromMonth	(String)	Refers to valid period (start month).
	ValidFromDay	(String)	Refers to valid period (start day).
	ValidFromHour	(String)	Refers to valid period (start hour).
	ValidFromMinute	(String)	Refers to valid period (start minute).
	ValidFromSecond	(String)	Refers to valid period (start second).
	ValidUntilYear	(String)	Refers to valid period (end year).
	ValidUntilMonth	(String)	Refers to valid period (end month).
	ValidUntilDay	(String)	Refers to valid period (end day).
	ValidUntilHour	(String)	Refers to valid period (end hour).
	ValidUntilMinute	(String)	Refers to valid period (end minute).
	ValidUntilSecond	(String)	Refers to valid period (end second).
	Timezone	(String)	Refers to the time zone.

# Changing the Set Values

## Common

You can not send only part of the parameters written in each SettingUrl. Send all the parameters in each SettingURL. If you want to change some set values only, send together the parameters other than those you want to change, without changing their values acquired by referring to the settings.



- There is no API for uploading web content or certificate files, but the sample program includes functions for uploading files using HTTP.
- If multiple instances of the same POST parameter are used the first parameter will be enabled, and other parameters following it will be disabled.

## Wired LAN

### General

SettingUrl : *set\_general\_wired.cgi*

Changes the link speed of the wired LAN.

POST parameter	Specifiable value	Description
LinkSpeed		Specifies the link speed.
	10BaseTHalf	10BaseT half duplex
	10BaseTFull	10BaseT full duplex
	100BaseTHalf	100BaseT half duplex
	100BaseTFull	100BaseT full duplex
	AutoNegotiation	Auto-negotiation

**TCP/IP**

SettingUrl : *set\_tcpip\_wired.cgi*

Changes the IP address, etc. of the wired LAN.

POST parameter	Specifiable value	Description
IPAddressSettingMethod		Specifies the IP address setting method.
	Auto	Auto
	Manual	Manual
APIPA		Refers to whether to enable or disable APIPA.
	Enable	Enable
	Disable	Disable
IPAddress	(String)	Specifies the IP address setting method.
SubnetMask	(String)	Specifies the subnet mask.
Gateway	(String)	Specifies the default gateway.
DNSServerSettingMethod		Specifies the DNS server IP address setting method.
	Auto	Auto
	Manual	Manual
DNSServerIPAddress1	(String)	Refers to DNS server IP address 1.
DNSServerIPAddress2	(String)	Refers to DNS server IP address 2.
DNSServerIPAddress3	(String)	Refers to DNS server IP address 3.

**Wireless LAN****General**

SettingUrl : *set\_general\_wireless.cgi*

Changes the SSID, etc. of the wireless LAN.

POST parameter	Specifiable value	Description
NetworkMode		Specifies the network mode.
	Infrastructure	Infrastructure mode
	Adhoc	Adhoc mode
SSID	(String)	Specifies the SSID by a character string using single-byte alphanumeric characters and spaces, 1 character or more to 32 characters or less long.
AdhocChannel	(String)	Specifies the ad hoc channel using an integer in the range 1- 11.
CommunicationStandard		Specifies the communication standard.
	802.11b/g	802.11b/g
	802.11b/g/n	802.11b/g/n

POST parameter	Specifiable value	Description
AuthenticationMethod		Specifies the authentication method.
	OpenSystem	OpenSystem
	SharedKey	SharedKey
	WPAPSK	WPAPSK
	WPA2PSK	WPA2PSK
EncryptionMethod		Specifies the encryption method.
	None	No encryption
	WEP	WEP
	TKIP	TKIP
	AES	AES
DefaultWEPKey		Specifies the WEP key to be used.
	WEPKey1	WEP key 1
	WEPKey2	WEP key 2
	WEPKey3	WEP key 3
	WEPKey4	WEP key 4
WEPKey1	(String)	Specifies a value for WEP key 1 using one of the following strings: <ul style="list-style-type: none"> <li>• 10-digit hexadecimal number</li> <li>• 26-digit hexadecimal number</li> <li>• 5 single-byte alphanumeric characters and spaces</li> <li>• 13 single-byte alphanumeric characters and spaces</li> </ul>
WEPKey2	(String)	Specifies a value for WEP key 2 using one of the following strings: <ul style="list-style-type: none"> <li>• 10-digit hexadecimal number</li> <li>• 26-digit hexadecimal number</li> <li>• 5 single-byte alphanumeric characters and spaces</li> <li>• 13 single-byte alphanumeric characters and spaces</li> </ul>
WEPKey3	(String)	Specifies a value for WEP key 3 using one of the following strings: <ul style="list-style-type: none"> <li>• 10-digit hexadecimal number</li> <li>• 26-digit hexadecimal number</li> <li>• 5 single-byte alphanumeric characters and spaces</li> <li>• 13 single-byte alphanumeric characters and spaces</li> </ul>
WEPKey4	(String)	Specifies a value for WEP key 4 using one of the following strings: <ul style="list-style-type: none"> <li>• 10-digit hexadecimal number</li> <li>• 26-digit hexadecimal number</li> <li>• 5 single-byte alphanumeric characters and spaces</li> <li>• 13 single-byte alphanumeric characters and spaces</li> </ul>
PresharedKey	(String)	Specifies the pre-shared key using one of the following strings: <ul style="list-style-type: none"> <li>• 8 or more to 63 or less single-byte alphanumeric characters and spaces</li> <li>• 64-digit hexadecimal number</li> </ul>



**TCP/IP**

SettingUrl : *set\_tcpip\_wireless.cgi*

Changes the IP address, etc. of the wireless LAN.

POST parameter	Specifiable value	Description
IPAddressSettingMethod		Specifies the IP address setting method.
	Auto	Auto
	Manual	Manual
APIPA		Refers to whether to enable or disable APIPA.
	Enable	Enable
	Disable	Disable
IPAddress	(String)	Specifies the IP address.
SubnetMask	(String)	Specifies the subnet mask.
Gateway	(String)	Specifies the default gateway.
DNSServerSettingMethod		Specifies the DNS server IP address setting method.
	Auto	Auto
	Manual	Manual
DNSServerIPAddress1	(String)	Refers to DNS server IP address 1.
DNSServerIPAddress2	(String)	Refers to DNS server IP address 2.
DNSServerIPAddress3	(String)	Refers to DNS server IP address 3.

## Adding a TM Printer

SettingUrl : *set\_epos\_print.cgi*

Adds the device ID of TM printer or product's printer.



Refer to the Technical Reference Guide for each printers that can be designated.

POST parameter	Specifiable value	Description
DeviceID	(String)	Specifies the device ID by a character string using single-byte alphanumeric characters, underscore(s), period(s), and/or dash(es), one character or more and 30 characters or less long. Set the IPAddress to "" (null character) when changing the device ID for the product's printer.
Model		Specifies the device model.
	TM-T88VI <sup>*1,2,6</sup>	TM-T88VI
	TM-T88V	TM-T88V, TM-T88V-i (TM-i Firmware Ver.4.0 or later) <sup>*1</sup>
	TM-T88IV	TM-T88IV
	TM-T70	TM-T70, TM-T70-i (TM-i Firmware Ver.4.0 or later) <sup>*1</sup> , TM-T70 (Simplified Chinese model) <sup>*3</sup>
	TM-T70II	TM-T70II, TM-T70II (Korea model) <sup>*1, 4</sup>
	TM-T90	TM-T90
	TM-L90	TM-L90, TM-L90 (Traditional Chinese model, South Asia model, Simplified Chinese model, Korea model) <sup>*3</sup>
	TM-T20 <sup>*3</sup>	TM-T20
	TM-T20II <sup>*3</sup>	TM-T20II, TM-T20II-i
	TM-T82II <sup>*1,4</sup>	TM-T82II, TM-T82II-i
	TM-T83II <sup>*1,4</sup>	TM-T83II, TM-T83II-i
	TM-P60II <sup>*3</sup>	TM-P60II
	TM-P80 <sup>*1,4</sup>	TM-P80
	TM-P20 <sup>*1,5</sup>	TM-P20
	TM-U220 <sup>*3</sup>	TM-U220
	TM-U220II <sup>*7</sup>	TM-U220II
IPAddress	(String)	Specifies the IP address. Setting the IPAddress to "" (null character) will allow you to change the device ID for the printer.
RetryInterval	(String)	Specifies the communication retry interval using a numeric value (in milliseconds) in the range 100- 60000.

\*1: TM-L90-i is not supported.

\*2: TM-U220IIB-i is not supported.

\*3: TM-i Firmware Ver.3.0 or later.

\*4: TM-i Firmware Ver.4.0 or later.

\*5: TM-i Firmware Ver.4.1 or later.

\*6: TM-i Firmware Ver.4.4 or later.

\*7: TM-i Firmware Ver.4.46 or later.

## Deleting a TM Printer

*SettingUrl : delete\_epos\_print.cgi*

Deletes a Device ID of the TM printer registered to TM-i .

POST parameter	Specifiable value	Description
DeviceID	(String)	Specifies the device ID by a character string using single-byte alphanumeric characters, underscore(s), period(s), and/or dash(es), one character or more and 30 characters or less long.

## Setting a Customer Display

*SettingUrl : set\_epos\_display.cgi*

Changes the communication settings for customer display registered to TM-i.

POST parameter	Specifiable value	Description
Baudrate		Specifies the communication speed.
	2400	2400 bps
	4800	4800 bps
	9600	9600 bps
	19200	19200 bps
	38400	38400 bps
	57600	57600 bps
	115200	115200 bps
Databit		Specifies the data bit.
	7	7 bits
	8	8 bits
Parity		Specifies the parity.
	None	None
	Even	Even
	Odd	Odd
Brightness		Specifies the brightness.
	100	100%
	60	60%
	40	40%
	20	20%
Use		Refers to whether customer displays are used.
	Enable	Enable
	Disable	Disable

## Adding a key input device

*SettingUrl : set\_epos\_key\_input\_device.cgi*

Changes the device information for key input devices registered to TM-i.

POST parameter	Specifiable value	Description
DeviceID	(String)	Designates a device ID of 1 to 30 alphanumeric characters, underbars, periods, and hyphens. local_printer, local_display, and local_serial cannot be designated. Designate IDs that are not the same as those used for registered printers and registered key input devices.
DeviceName	(String)	Specifies the device name.
VID	(String)	Designates a vendor ID (4-digit hexadecimal value).
PID	(String)	Designates a product ID (4-digit hexadecimal value).
ControlScript	(String)	Designates the file name of the control script to be used.

## Deleting a key input device

*SettingUrl : delete\_epos\_key\_input\_device.cgi*

Deletes the Device ID of the key input device registered to TM-i.

POST parameter	Specifiable value	Description
DeviceID	(String)	Designates a device ID of 1 to 30 alphanumeric characters, underbars, periods, and hyphens.

## Setting a Serial Communication Device

*SettingUrl : set\_epos\_serial.cgi*

Changes the communication settings of the serial communication device, and device ID sets to (local\_serial).

If the TM-i specifications include no serial ports, this setting is disabled.

POST parameter	Specifiable value	Description
Use		Designates whether to use a serial communication device.
	Enable	Enable
	Disable	Disable
Baudrate		Specifies the communication speed.
	2400	2400 bps
	4800	4800 bps
	9600	9600 bps
	19200	19200 bps
	38400	38400 bps
	57600	57600 bps
	115200	115200 bps
Databit		Specifies the data bit.
	7	7 bits
	8	8 bits
Parity		Specifies the parity.
	None	None
	Even	Even
	Odd	Odd
Stopbit		Specifies the stop bit.
	1	1 bit
	1.5	1.5 bit
	2	2 bit
FlowControl		Specifies the flow control.
	XOnXOff	XOnXOff
	Hardware	Hardware
	None	None

## Setting a TM printer

### General

SettingUrl : *set\_device\_tcpip.cgi*

Changes the network settings for a TM printer connected to the TM-i.



Setting is possible under the following conditions.

- TM-i and TM printers are connected to the same subnet network by a LAN cable. (Setting is not possible if the TM-i and TM printers are connected by a wireless LAN.)
- A TM-i printer and wireless LAN interface with a USB connector of a TM printer are connected by USB. (UB-R03)

POST parameter	Specifiable value	Description
MACAddress	(String)	Specifies the MAC address.
HostName	(String)	Specifies the IP address.
IPAddressSettingMethod		Specifies the IP address setting method.
	Auto	Auto
	Manual	Manual
APIPA		Refers to whether to enable or disable APIPA.
	Enable	Enable
	Disable	Disable
IPAddress	(String)	Specifies the IP address.
SubnetMask	(String)	Specifies the subnet mask.
Gateway	(String)	Specifies the default gateway.
Password	(String)	Specifies a new password to be set using a single-byte alphanumeric character string 0 (zero) character or more and 20 characters or less long.

### Wireless LAN

SettingUrl : *set\_device\_wireless.cgi*

Changes the wireless LAN settings for a TM printer connected to the TM-i.



Setting is possible under the following conditions.

- A TM-i printer and wireless LAN interface with a USB connector of a TM printer are connected by USB. (UB-R03)

POST parameter	Specifiable value	Description
MACAddress	(String)	Specifies the MAC address.
HostName	(String)	Specifies the IP address.
NetworkMode		Specifies the network mode.
	Infrastructure	Infrastructure mode
	Adhoc	Adhoc mode
SSID	(String)	Specifies the SSID by a character string using single-byte alphanumeric characters and spaces, 1 character or more to 32 characters or less long.

POST parameter	Specifiable value	Description
AdhocChannel	(String)	Specifies the ad hoc channel using an integer in the range 1- 11.
CommunicationStandard		Specifies the communication standard.
	802.11b	802.11b
	802.11b/g	802.11b/g
	802.11b/g/n	802.11b/g/n
AuthenticationMethod		Specifies the authentication method.
	OpenSystem	OpenSystem
	SharedKey	SharedKey
	WPAPSK	WPAPSK
EncryptionMethod		Specifies the encryption method.
	None	No encryption
	WEP	WEP
	TKIP	TKIP
	AES	AES
DefaultWEPKey		Specifies the WEP key to be used.
	WEPKey1	WEP key 1
	WEPKey2	WEP key 2
	WEPKey3	WEP key 3
	WEPKey4	WEP key 4
WEPKey1	(String)	Specifies a value for WEP key 1 using one of the following strings: <ul style="list-style-type: none"> <li>• 10-digit hexadecimal number</li> <li>• 26-digit hexadecimal number</li> <li>• 5 single-byte alphanumeric characters and spaces</li> <li>• 13 single-byte alphanumeric characters and spaces</li> </ul>
WEPKey2	(String)	Specifies a value for WEP key 2 using one of the following strings: <ul style="list-style-type: none"> <li>• 10-digit hexadecimal number</li> <li>• 26-digit hexadecimal number</li> <li>• 5 single-byte alphanumeric characters and spaces</li> <li>• 13 single-byte alphanumeric characters and spaces</li> </ul>
WEPKey3	(String)	Specifies a value for WEP key 3 using one of the following strings: <ul style="list-style-type: none"> <li>• 10-digit hexadecimal number</li> <li>• 26-digit hexadecimal number</li> <li>• 5 single-byte alphanumeric characters and spaces</li> <li>• 13 single-byte alphanumeric characters and spaces</li> </ul>

POST parameter	Specifiable value	Description
WEKey4	(String)	Specifies a value for WEP key 4 using one of the following strings: <ul style="list-style-type: none"> <li>• 10-digit hexadecimal number</li> <li>• 26-digit hexadecimal number</li> <li>• 5 single-byte alphanumeric characters and spaces</li> <li>• 13 single-byte alphanumeric characters and spaces</li> </ul>
PresharedKey	(String)	Specifies the pre-shared key using one of the following strings: <ul style="list-style-type: none"> <li>• 8 or more, 63 or less single-byte alphanumeric characters and spaces</li> </ul>
Password	(String)	Specifies a new password to be set using a single-byte alphanumeric character string 0 (zero) character or more and 20 characters or less long.

## Spooler



This function is supported for TM-i (TM-i firmware Ver.4.1 or later).

### Operation settings

SettingUrl : *set\_epos\_print\_spooler.cgi*

For changing the operation settings for the job spooler.

POST parameter	Specifiable value	Description
Use		Specifies to whether to use spool function. When this is set to "Enable", PHP will be disabled.
	Enable	Enable
	Disable	Disable
RetryInterval	(String)	Specifies a value from 1 to 60 for the communication retry interval.
RetryCount	(String)	Specifies a value from 0 to 60 for the number of communication retries.



**Forwarding message settings**

SettingUrl : `set_print_forwarding_message.cgi`

Changing the forwarding message settings for the job spooler.

POST parameter	Specifiable value	Description
MessageString	(String)	Specifies a character string of up to 255 bytes for the notification message printed during forwarding processing.
Bold		Specifies to whether to enable or disable character decoration (Bold). If no setting is specified, the current settings are used.
	Enable	Enable
	Disable	Disable
Underline		Specifies to whether to enable or disable character decoration (Underline). If no setting is specified, the current settings are used.
	Enable	Enable
	Disable	Disable
DoubleWidth		Specifies to whether to enable or disable character decoration (Double Width). If no setting is specified, the current settings are used.
	Enable	Enable
	Disable	Disable
DoubleHeight		Specifies to whether to enable or disable character decoration (Double Height). If no setting is specified, the current settings are used.
	Enable	Enable
	Disable	Disable
Reverse		Specifies to whether to enable or disable character decoration (Reverse black and white). If no setting is specified, the current settings are used.
	Enable	Enable
	Disable	Disable
UpsideDown		Specifies to whether to enable or disable character decoration (Upside Down). If no setting is specified, the current settings are used.
	Enable	Enable
	Disable	Disable
Position		Specifies the position where the notification message is printed. If no setting is specified, the current settings are used.
	Top	Before the print data
	Bottom	After the print data
Cut		Specifies whether the paper is to be cut after the notification message is printed. If no setting is specified, the current settings are used.
	Enable	Enable
	Disable	Disable

**Addition of print forwarding routes**

SettingUrl : `add_print_forwarding_route.cgi`

Adds print forwarding routes for the job spooler.

POST parameter	Specifiable value	Description
DeviceID	(String)	Specifies the printers for which forwarding routes will be set, in the format "Devices-(printer device IDs)". For each printer's device ID, specify a string of from 1 to 30 alphanumeric characters, which can include one or more underscores, periods and/or hyphens. Any device IDs that are already registered will be overwritten.
Candidate1	(String)	For the device ID of a candidate forwarding route printer, specify a string of from 1 to 30 alphanumeric characters, which can include one or more underscores, periods and/or hyphens. For this, you cannot use a device ID that you specified for the "DeviceID" item above.
Candidate2	(String)	For the device ID of another candidate forwarding route printer, specify a string of from 1 to 30 alphanumeric characters, which can include one or more underscores, periods and/or hyphens. For this, you cannot use a device ID that you specified for the "DeviceID" item or "Candidate1" item above. If you do not specify a device ID for this, only one forwarding candidate will be set.

**Deletion of print forwarding route**

SettingUrl : `delete_print_forwarding_route.cgi`

Deletes a registered print forwarding route.

POST parameter	Specifiable value	Description
DeviceID	(String)	Specifies the printer for which the forwarding route will be deleted, in the format "Devices-(printer device ID)". For the printer's device ID, specify a string of from 1 to 30 alphanumeric characters, which can include one or more underscores, periods and/or hyphens.

## Web Contents Updater

*SettingUrl* : *set\_web\_contents\_updater.cgi*

Changes the Web contents update setting.

POST parameter	Specifiable value	Description
AutoUpdate		Specifies whether to automatically update the Web contents.
	Enable	Enable
	Disable	Disable
Frequency		Specifies the frequency of automatic update.
	Hour	Updates at specified time intervals.
	Daily	Updates daily, at the specified time of day.
	Weekly	Updates weekly, on the specified day of the week and at the specified time of day.
	Monthly	Updates monthly, on the specified day and at the specified time of day.
Timing		Specifies the timing of automatic update. The value to be specified varies depending on the value for Frequency.
(When Frequency=Hour)	(String)	Specifies the time interval of automatic update using an integer in the range 1- 23.
(When Frequency=Daily)		Specify a blank character.
(When Frequency=Weekly)	Sunday	Updates every Sunday.
	Monday	Updates every Monday.
	Tuesday	Updates every Tuesday.
	Wednesday	Updates every Wednesday.
	Thursday	Updates every Thursday.
	Friday	Updates every Friday.
	Saturday	Updates every Saturday.
(When Frequency=Monthly)	(String)	Specifies the date to perform automatic update using an integer in the range 1- 31.
UpdateTimeHour	(String)	Specifies the hour of the time to perform automatic update using an integer in the range 0- 23. When Frequency=Hour, specifies the empty character.
UpdateTimeMinute	(String)	Specifies the minute of the time to perform automatic update using an integer in the range 0- 59. When Frequency=Hour, specifies the empty character.
FileURL	(String)	Specifies the URL of the Web contents file.
UseProxy		Specifies whether to use a proxy server at the time of automatic update.
	Enable	Enable
	Disable	Disable
ProxyURL	(String)	Specifies the URL of the proxy server.

POST parameter	Specifiable value	Description
ID	(String)	Designates the ID for the server-side program to identify TM-i. This ID becomes the user ID used for Digest access authentication. The set value will also be passed as an ID parameter value for the form data posted to the server. Designates an ID of no more than 30 alphanumeric characters, underbars, periods, and hyphens.
Password	(String)	Designates the password used for Digest authentication. The Digest access cannot be authenticated for user IDs without passwords. To authenticate the Digest access, configure a password that is not empty. Designates a password of no more than 30 alphanumeric characters, underbars, periods, and hyphens.
ServerAuthentication		Designates whether to use server authentication. If no password is specified, the current settings are used.
		Enable
		Disable

*SettingUrl : set\_web\_contents\_storage.cgi*

Changes the PHP setting.

POST parameter	Specifiable value	Description
PHP		Specify the Enable / Disable PHP. When this is set to "Enable", Spooler will be disabled.
	Enable	Enable
	Disable	Disable

## Automatic Update

*SettingUrl : execute\_web\_contents\_updater.cgi*

Forcibly perform automatic update of the Web contents.

No parameter to be set.

## Server Direct Print

*SettingUrl : set\_server\_direct\_print.cgi*

Changes the Server Direct Print settings.

POST parameter	Specifiable value	Description
Use		Designates whether to use Server Direct Print.
	Enable	Enable
	Disable	Disable
ID	(String)	Designates the ID for the server-side program to identify TM-i. This ID becomes the user ID used for Digest access authentication. The set value will also be passed as an ID parameter value for the form data posted to the server. Designates an ID of no more than 30 alphanumeric characters, underbars, periods, and hyphens.
Password	(String)	Designates the password used for Digest authentication. The Digest access cannot be authenticated for user IDs without passwords. To authenticate the Digest access, configure a password that is not empty. Designates a password of no more than 30 alphanumeric characters, underbars, periods, and hyphens.
URL	(String)	Designates the acquisition destination URL for print data. If URL1 is specified, this parameter is ignored.
Interval	(String)	Designates a value (seconds) between 1 and 86400 for the standby time from the completion of acquisition of print data until acquisition of the next print data.
URL1	(String)	Designates the acquisition destination URL for print data.
Interval1	(String)	Designates a value (seconds) between 1 and 86400 for the standby time from the completion of acquisition of print data until acquisition of the next print data.
URL2	(String)	Designates the acquisition destination URL for print data.
Interval2	(String)	Designates a value (seconds) between 1 and 86400 for the standby time from the completion of acquisition of print data until acquisition of the next print data.
URL3	(String)	Designates the acquisition destination URL for print data.
Interval3	(String)	Designates a value (seconds) between 1 and 86400 for the standby time from the completion of acquisition of print data until acquisition of the next print data.
ServerAuthentication		Designates whether to use server authentication. If no password is specified, the current settings are used.
	Enable	Enable
	Disable	Disable

## Status Notification

*SettingUrl : set\_status\_notification.cgi*

Changes the settings for status notifications.

POST parameter	Specifiable value	Description
Use		Designates whether the status notification function is used.
	Enable	Enable
	Disable	Disable
ID	(String)	Designates the ID for the server-side program to identify TM-i. This ID becomes the user ID used for Digest access authentication. The set value will also be passed as an ID parameter value for the form data posted to the server. Designates an ID of no more than 30 alphanumeric characters, underbars, periods, and hyphens.
Password	(String)	Designates the password used for Digest authentication. The Digest access cannot be authenticated for user IDs without passwords. To authenticate the Digest access, configure a password that is not empty. Designates a password of no more than 30 alphanumeric characters, underbars, periods, and hyphens.
URL	(String)	Designates the status notification destination URL.
Interval	(String)	Designates a value (seconds) between 1 and 86400 for the standby time from the completion of acquisition of print data until acquisition of the next print data.
ServerAuthentication		Designates whether to use server authentication. If no setting is specified, the current settings are used.
	Enable	Enable
	Disable	Disable

## Device Data Notification



This function is supported for TM-i (TM-i firmware Ver.4.1 or later).

SettingUrl : `set_device_data_notification.cgi`

Changes the settings for device data notification.

POST parameter	Specifiable value	Description
Use		Designates whether the device data notification is used.
	Enable	Enable
	Disable	Disable
ID	(String)	Designates the ID for the server-side program to identify TM-i. This ID becomes the user ID used for Digest access authentication. The set value will also be passed as an ID parameter value for the form data posted to the server. Designates an ID of no more than 30 alphanumeric characters, underbars, periods, and hyphens.
Password	(String)	Designates the password used for Digest authentication. The Digest access cannot be authenticated for user IDs without passwords. To authenticate the Digest access, configure a password that is not empty. Designates a password of no more than 30 alphanumeric characters, underbars, periods, and hyphens.
URL	(String)	Specifies the URL that the device data is to be notified to.
ServerAuthentication		Designates whether to use server authentication.
	Enable	Enable
	Disable	Disable
BoxID	(String)	For the BoxID for the communication box, specify a string of up to 30 alphanumeric characters, which can include one or more underscores, periods and/or hyphens.
PrintError		Specifies whether a notification message is to be printed when a device data notification error occurs.
	Enable	Enable
	Disable	Disable
ErrorMessage	(String)	Specifies a character string of up to 255 bytes for the notification message.

POST parameter	Specifiable value	Description
Bold		Specifies to whether to enable or disable character decoration (Bold).
	Enable	Enable
	Disable	Disable
Underline		Specifies to whether to enable or disable character decoration (Underline).
	Enable	Enable
	Disable	Disable
DoubleWidth		Specifies to whether to enable or disable character decoration (Double Width).
	Enable	Enable
	Disable	Disable
DoubleHeight		Specifies to whether to enable or disable character decoration (Double Height).
	Enable	Enable
	Disable	Disable
Reverse		Specifies to whether to enable or disable character decoration (Reverse black and white).
	Enable	Enable
	Disable	Disable
UpsideDown		Specifies to whether to enable or disable character decoration (Upside Down).
	Enable	Enable
	Disable	Disable
Cut		Specifies whether the paper is to be cut after the notification message is printed.
	Enable	Enable
	Disable	Disable
Devices-(device ID(s) of device(s))	(String)	Specify the device(s) for which device data notification is to be used, in the format "Devices-(device ID(s) of device(s) for which the notification is to be used)". In the case of more than one device, specify all the IDs together here.

## Certificate

*SettingUrl : delete\_certificate.cgi*

Deletes the specified certificate.

POST parameter	Specifiable value	Description
FileDigest	(String)	Designates the "MD5" hash value for the certificate to be deleted.



## Proxy

*SettingUrl : set\_proxy.cgi*

Changes the proxy information.

POST parameter	Specifiable value	Description
ProxyURL	(String)	Enter the proxy server URL and port number in the following: "http://host name: port number". Example: http://10.0.0.1:8008
ID	(String)	Designates the ID for the server-side program to identify TM-i. This ID becomes the user ID used for Digest access authentication. The set value will also be passed as an ID parameter value for the form data posted to the server. Designates an ID of no more than 30 alphanumeric characters, underbars, periods, and hyphens.
Password	(String)	Designates the password used for Digest authentication. The Digest access cannot be authenticated for user IDs without passwords. To authenticate the Digest access, configure a password that is not empty. Designates a password of no more than 30 alphanumeric characters, underbars, periods, and hyphens.
UseProxyServerDirectPrint		Designates whether a proxy is used in Server Direct Print.
	Enable	Enable
	Disable	Disable
UseProxyStatusNotification		Designates whether a proxy is used in status notifications.
	Enable	Enable
	Disable	Disable
UseProxyDeviceDataNotification		Designates whether a proxy is used in device data notifications.
	Enable	Enable
	Disable	Disable
UseProxyWebContentsUpdate		Designates whether a proxy is used in Web Contents Update.
	Enable	Enable
	Disable	Disable

## Administrator and Location

*SettingUrl* : *set\_administrator.cgi*

Changes the administrator information.

POST parameter	Specifiable value	Description
Administrator	(String)	Specifies the string that designates the administrator, 255 characters or less long.
Location	(String)	Specifies the string that designates the location, 255 characters or less long.

## Time of Day

*SettingUrl* : *set\_time.cgi*

Changes the time-of-day setting.

POST parameter	Specifiable value	Description
Year	(String)	Specifies the year of the internal clock of the TM-i using an integer in the range 2012-2036.
Month	(String)	Specifies the month of the internal clock of the TM-i using an integer in the range 1-12.
Day	(String)	Specifies the day of the internal clock of the TM-i using an integer in the range 1-31.
Hour	(String)	Specifies the hour of the time of the internal clock of the TM-i using an integer in the range 0-23.
Minute	(String)	Specifies the minute of the time of the internal clock of the TM-i using an integer in the range 0-59.
UseTimeServer		Specifies whether to enable or disable the clock alignment by the time server.
	Enable	Enable
	Disable	Disable
TimeServerSettingMethod		Specifies the time server name acquisition method.
	Auto	Auto
	Manual	Manual
TimeServer	(String)	Specifies the time server name.
TimeZone	(String)	Specifies the time zone with a value that is -14 or higher to 12 or lower.

## Password

SettingUrl : *set\_password.cgi*

Changes the set password.

POST parameter	Specifiable value	Description
NewPassword	(String)	Specifies a new password to be set using a single-byte alphanumeric character string 0 (zero) character or more and 20 characters or less long.

## SSL



This function is supported for TM-i (TM-i firmware Ver.4.3 or later).

SettingUrl : *set\_ssl.cgi*

Changes the information of SSL settings.

POST parameter	Specifiable value	Description
Use		Designates whether the SSL is used.
	Enable	Enable
	Disable	Disable

## Resetting and Initializing the Settings

SettingUrl : *set\_reset.cgi*

Resets the wired LAN/wireless LAN and restores the factory default settings.

POST parameter	Specifiable value	Description
Operation		
	Reset	Resets the wired LAN/wireless LAN.
	FactoryDefault	Restores the factory default settings.

## Error Codes and Actions to Take

This section describes an error code returned to the response body when POST fails and an action to take.

code	Action to Take
AccessToFileURLFailed	Failed to access the URL specified for the FileURL parameter. Check the network settings for the TM-i and for the server.
AccessToProxyURLFailed	Failed to access the proxy URL specified for the ProxyURL parameter. Check the network settings for the TM-i and for the server.
DeviceIDAlreadyRegistered	The device specified for the DeviceID parameter cannot be registered because it is already registered. Specify a different ID.
DeviceIDNotRegistered	The device specified for the DeviceID parameter cannot be deleted because it is not registered. Specify an already registered ID.
DeviceNotFound	The TM printer specified for the MACAddress or HostName parameter could not be found. Check the connection status of the TM printer.
DeviceNotWireless	The TM printer specified for the MACAddress or HostName parameter is not a printer with any wireless LAN interface. Check the interface of the TM printer.
FileURLNotZip	The Web contents downloaded from the URL specified for FileURL were not of a zip file format. Correct the error.
FirmwareUpdating	Firmware is being updated by the remote update tool. Wait until the execution of the remote update tool becomes complete.
IDNeededToSetPassword	When a string with no null character is specified for the Password parameter, a null character string cannot be specified for the ID parameter. Set a value for the ID parameter.
InvalidAdhocChannel	Invalid AdhocChannel parameter value. Correct the error.
InvalidAdministrator	Invalid Administrator parameter value. Correct the error.
InvalidAPIPA	Invalid APIPA parameter value. Correct the error.
InvalidAuthenticationMethod	Invalid AuthenticationMethod parameter value. Correct the error.
InvalidAuthenticationMethodAdhoc	When Adhoc is specified for the NetworkMode parameter, WPAPSK/WPA2PSK cannot be specified for AuthenticationMethod. Correct the error.
InvalidAutoUpdate	Invalid AutoUpdate parameter value. Correct the error.
InvalidBoxId	Invalid BoxId parameter value. Correct the error.
InvalidCandidate1	Invalid Candidate1 parameter value. Correct the error.

code	Action to Take
InvalidCandidate2	Invalid Candidate2 parameter value. Correct the error.
InvalidCommunicationStandard	Invalid CommunicationStandard parameter value. Check the values for the communication standard supported by the printer to correct the value.
InvalidCommunicationStandardAdhoc	When Adhoc is specified for the NetworkMode parameter, 802.11b/g/n cannot be specified for CommunicationStandard. Correct the error.
InvalidCut	Invalid Cut parameter value. Correct the error.
InvalidDate	Invalid Year/Month/Day parameter combination. Correct the error.
InvalidDay	Invalid Day parameter value. Correct the error.
InvalidDefaultWEPKey	Invalid DefaultWEPKey parameter value. Correct the error.
InvalidDeviceID	Invalid DeviceID parameter value. Correct the error.
InvalidDNSServerIPAddress	Invalid value for any of the parameters DNSServerIPAddress1 to DNSServerIPAddress3. Correct the error.
InvalidDNSServerSettingMethod	Invalid DNSServerSettingMethod parameter value. Correct the error.
InvalidEncryptionMethod	Invalid EncryptionMethod parameter value. Correct the error.
InvalidEncryptionMethodAdhoc	When Adhoc is specified for the NetworkMode parameter, TKIP/AES cannot be specified for EncryptionMethod. Correct the error.
InvalidEncryptionMethodOpenSystem	When OpenSystem is specified for the AuthenticationMethod parameter, TKIP/AES cannot be specified for EncryptionMethod. Correct the error.
InvalidEncryptionMethodWPAPSK	When WPAPSK is specified for the AuthenticationMethod parameter, None/WEP cannot be specified for EncryptionMethod. Correct the error.
InvalidFileURL	Invalid FileURL parameter value. Correct the error.
InvalidFrequency	Invalid Frequency parameter value. Correct the error.
InvalidGateway	Invalid Gateway parameter value. Correct the error.
InvalidHostName	Invalid HostName parameter value. Correct the error.
InvalidHour	Invalid Hour parameter value. Correct the error.

code	Action to Take
InvalidID	Invalid ID parameter value. Correct the error.
InvalidInterval	Invalid Interval parameter value. Correct the error.
InvalidIPAddress	Invalid IPAddress parameter value. Correct the error.
InvalidIPAddressSettingMethod	Invalid IPAddressSettingMethod parameter value. Correct the error.
InvalidLinkSpeed	Invalid LinkSpeed parameter value. Correct the error.
InvalidLocation	Invalid Location parameter value. Correct the error.
InvalidMACAddress	Invalid MACAddress parameter value. Correct the error.
InvalidMessageString	Invalid MessageString parameter value. Correct the error.
InvalidMinute	Invalid Minute parameter value. Correct the error.
InvalidModel	Invalid Model parameter value. Correct the error.
InvalidMonth	Invalid Month parameter value. Correct the error.
InvalidNetworkMode	Invalid NetworkMode parameter value. Correct the error.
InvalidNewPassword	Invalid NewPassword parameter value. Correct the error.
InvalidOperation	Invalid Operation parameter value. Correct the error.
InvalidPassword	Invalid Password parameter value. Correct the error.
InvalidPosition	Invalid Position parameter value. Correct the error.
InvalidPresharedKey	Invalid PresharedKey parameter value. Correct the error.
InvalidPrintMessage	Invalid PrintMessage parameter value. Correct the error.
InvalidProxyURL	Invalid ProxyURL parameter value. Correct the error.
InvalidRetryCount	Invalid RetryCount parameter value. Correct the error.
InvalidRetryInterval	Invalid RetryInterval parameter value. Correct the error.
InvalidServerAuthentication	Invalid ServerAuthentication parameter value. Correct the error.
InvalidSSID	Invalid SSID parameter value. Correct the error.
InvalidSubnetMask	Invalid SubnetMask parameter value. Correct the error.

code	Action to Take
InvalidTextAttributes	Invalid TextAttributes parameter value. Correct the error.
InvalidTime	Invalid Hour/Minute parameter combination. Correct the error.
InvalidTimeMinute	Invalid UpdateTimeMinute parameter value. Correct the error.
InvalidTimeServer	Invalid TimeServer parameter value. Correct the error.
InvalidTimeServerSettingMethod	Invalid TimeServerSettingMethod parameter value. Correct the error.
InvalidTimeZone	Invalid TimeZone parameter value. Correct the error.
InvalidTiming	Invalid Timing parameter value. Correct the error.
InvalidUpdateTimeHour	Invalid UpdateTimeHour parameter value. Correct the error.
InvalidURL	Invalid URL parameter value. Correct the error.
InvalidUse	Invalid Use parameter value. Correct the error.
InvalidUseProxy	Invalid UseProxy parameter value. Correct the error.
InvalidUseProxyDeviceDataNotification	Invalid UseProxyDeviceDataNotification parameter value. Correct the error.
InvalidUseTimeServer	Invalid UseTimeServer parameter value. Correct the error.
InvalidWEPKey1	Invalid WEPKey1 parameter value. Correct the error.
InvalidWEPKey2	Invalid WEPKey2 parameter value. Correct the error.
InvalidWEPKey3	Invalid WEPKey3 parameter value. Correct the error.
InvalidWEPKey4	Invalid WEPKey4 parameter value. Correct the error.
InvalidYear	Invalid Year parameter value. Correct the error.
microSDNotFound	The Web contents save destination is specified as microSD, but no microSD could be detected. Check that a microSD is mounted to the TM-i.
NotEnoughFreeSpace	The amount of free ROM space on the TM-i is not enough to explode the Web contents downloaded from the URL specified for FileURL. Check that the file size of the Web contents is 30MB or less.
PasswordNotCorrect	The string specified for the Password parameter did not match the password string set into the detected TM printer. Correct the error.

code	Action to Take
SameDeviceID	The same device ID has been specified for DeviceID and/or Candidate1 and/or Candidate2. Specify a separate device ID for each item.
WebContentsUpdaterDisabled	The Web contents automatic update setting is disabled. Correct the error.



# Sample Program

This sample program is installed in VBA (Visual Basic for Application) and has the following functions.

- Referencing and setting of the EPSON TMNet WebConfig for a TM-i using the WebConfig API
- Registration of web content to a TM-i using HTTP functions
- Registration of certificates to a TM-i using HTTP functions

## Screen

The following screen appears when the sample program starts.

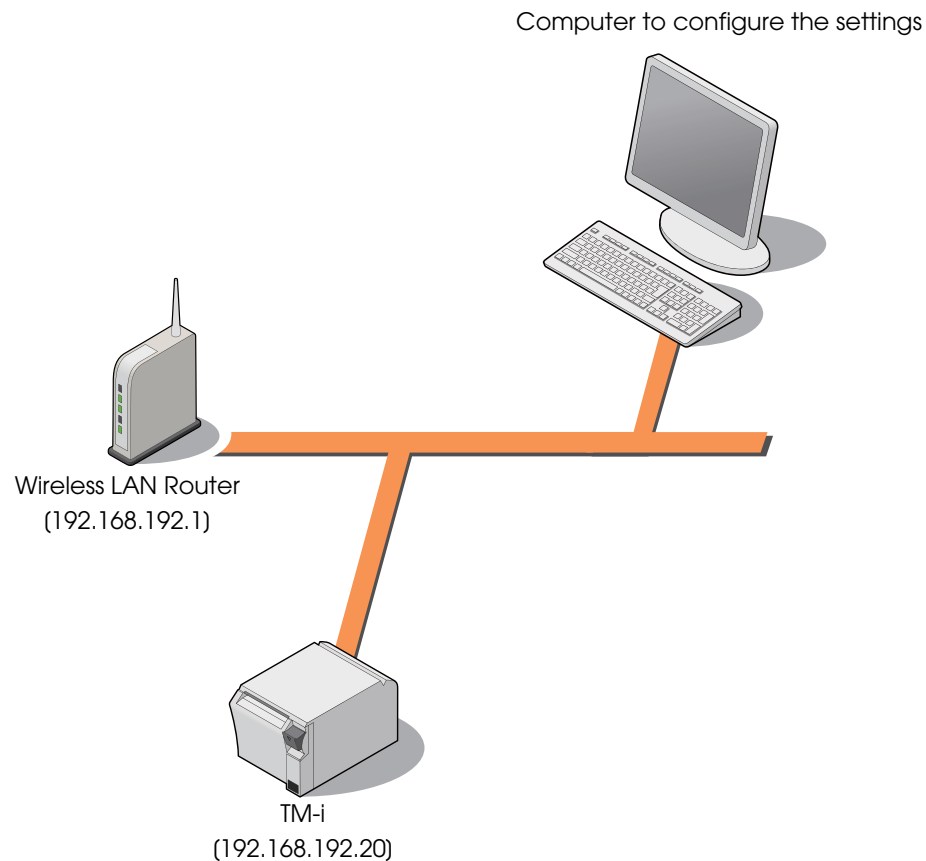
	A	B	C	D
1				
2		Protocol	http	
3		IP Address		
4		CGI Name	config_device_data_notification.cgi/set_device_data_notification.cgi	
5		Format	ini	
6		User Name		
7		Password		
8		<div> <div>GET</div> <div>SET</div> <div>Upload Web Contents</div> <div>Upload Certificate File</div> <div>Upload SSL Setting Files (without CertificateChain)</div> <div>Upload SSL Setting Files (with CertificateChain)</div> </div>		
9				
10				
11		response		
12		success		
13		code		
14				
15		HTTP status code		
16		Response body		
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				
36				

## Operating Environment

The system configuration diagram for the sample programs is as below.



The IP address value is just an example. Set the value that suits your use environment.



- ❑ Wireless LAN Router
- ❑ TM-i (1 set)  
TM-T88V-i/ TM-T70-i/TM-L90-i/TM-T20II-i/TM-T82II-i/TM-T83II-i
- ❑ Computer to configure the settings  
Computer in which Microsoft Office Excel 2003(Excel2003) or later and Microsoft Internet Explorer 7 or later are installed.

## Basic Usage of the Sample Program

This sample program must be used with macro enabled.

This program acquires a single set of cgi data, once only. It cannot acquire or set multiple cgi data sets.

Below is explained how to use the program to acquire data from a TM-i, edit the data, and register it on the TM-i.

- 1 Enter information on the TM-i from which WebConfig data is to be acquired, and enter the cgi to be acquired.

Item	Description
Protocol*	For TM-i Firmware Ver.4.1 or earlier: Enter http. For TM-i Firmware Ver.4.3 or later: Enter http or https.
IP Address	Enter the TM-i's IP address.
CGI Name	Select the name of the cgi to be acquired from the list.
Format	Select the format of the data to be acquired from the list.
User Name	Enter the user name for the TM-i's EPSON TMNet WebConfig. "epson" is fixed.
Password	The password for the TM-i's EPSON TMNet WebConfig. This will be blank if no password has been specified. Specification of a password is not required in the initial settings.

\*: TM-i Firmware Ver.4.3 or later

The screenshot shows a software interface with a table for configuration and a set of control buttons. The table has columns A, B, and C. The configuration data is as follows:

	A	B	C
1			
2	Protocol		http
3	IP Address		192.168.192.168/
4	CGI Name		config_general_wired.cgi/set_general_wired.cgi
5	Format		json
6	User Name		epson
7	Password		

Below the table are several buttons: GET, SET, Upload Web Contents, Upload Certificate File, Upload SSL Setting Files (without CertificateChain), and Upload SSL Setting Files (with CertificateChain). Below the buttons is another table for response data:

11	response	
12	success	
13	code	
14		
15	HTTP status code	
16	Response body	
17		

## 2 Click the (GET) button.

The response result from the TM-i will be displayed in the Response body and in the value for each parameter.

<div>GET</div> <div>SET</div> <div>Upload Web Contents</div> <div>Upload Certificate File</div> <div>Upload SSL Setting Files (without CertificateChain)</div> <div>Upload SSL Setting Files (with CertificateChain)</div>	
response	
success	TRUE
code	
HTTP status code	200
Response body	<pre>{ "response" : { "success": "true" }, "WiredNetwork" : { "DNSServerIPAddress2" : "", "DNSServerSettingMethod" : "Manual", "IPAddress" : "192.168.192.20", "IPAddressSettingMethod" : "Manual", "SubnetMask" : "255.255.255.0", "APIPA" : "Disable", "DNSServerIPAddress1" : "", "DNSServerIPAddress3" : "", "Gateway" : "192.168.192.1" } }</pre>
WiredNetwork	
DNSServerIPAddress2	
DNSServerSettingMethod	Manual
IPAddress	192.168.192.20
IPAddressSettingMethod	Manual
SubnetMask	255.255.255.0
APIPA	Disable
DNSServerIPAddress1	
DNSServerIPAddress3	
Gateway	192.168.192.1

- 3** Edit the cgi information acquired from the TM-i Series. Rewrite the set values you want to change.

14	HTTP status code	200
15	Response body	<pre>{   "response": {     "success": "true"   },   "WiredNetwork": {     "DNSServerIPAddress2": "",     "DNSServerSettingMethod": "Manual",     "IPAddress": "192.168.192.20",     "IPAddressSettingMethod": "Manual",     "SubnetMask": "255.255.255.0",     "APIPA": "Disable",     "DNSServerIPAddress1": "",     "DNSServerIPAddress3": "",     "Gateway": "192.168.192.1"   } }</pre>
16	<b>WiredNetwork</b>	
17	DNSServerIPAddress2	
18	DNSServerSettingMethod	Manual
19	IPAddress	192.168.192.20
20	IPAddressSettingMethod	Manual
21	SubnetMask	255.255.255.0
22	APIPA	Disable
23	DNSServerIPAddress1	
24	DNSServerIPAddress3	
25	Gateway	192.168.192.1
26		

- 4** Register the edited set values to the TM-i.  
 Then click (SET). When you click (SET), the changed data will be registered to the TM-i.  
 The edited content will be displayed inside the cells.

8	GET	SET	Upload Web Contents	Upload Certificate File	Upload SSL Setting Files (without CertificateChain)	Upload SSL Setting Files (with CertificateChain)
9						
10						
11	response					
12	success	TRUE				
13	code					
14						
15	HTTP status code	200				
16	Response body	<pre>{   "response": {     "success": "true"   },   "WiredNetwork": {     "DNSServerIPAddress2": "",     "DNSServerSettingMethod": "Manual",     "IPAddress": "192.168.192.20",     "IPAddressSettingMethod": "Manual",     "SubnetMask": "255.255.255.0",     "APIPA": "Disable",     "DNSServerIPAddress1": "",     "DNSServerIPAddress3": "",     "Gateway": "192.168.192.1"   } }</pre>				



By selecting [config\_epos\_print.cgi] and [set\_epos\_print.cgi] and then clicking [GET], you can acquire all the registered device values. However, values for only 1 device can be registered (SET) at a time. To register the setting values for multiple devices, set the values for each device individually.

## 5 The results of the setting value changes will be displayed.

Result	Indication
Success	"TRUE" will be displayed at "success".
Failure	"FALSE" will be displayed at "success". The reason will be displayed at "reason".

The following screen shows the case in which the IP address failed to be set.

8		
9	GET	SET
10	Upload Web Contents	Upload Certificate File
11	Upload SSL Setting Files (without CertificateChain)	Upload SSL Setting Files (with CertificateChain)
12	response	
13	success	FALSE
14	code	InvalidIPAddress
15	HTTP status code	200
16	Response body	{ "response" : { "success" : "false", "code" : "InvalidIPAddress" } }
17	WirelessNetwork	
18	DNSServerIPAddress2	
19	DNSServerSettingMethod	Manual
20	IPAddress	192.168.255.255
21	IPAddressSettingMethod	Manual
22	SubnetMask	255.255.255.0
23	APIPA	Disable
24	DNSServerIPAddress1	
25	DNSServerIPAddress3	
26	Gateway	
27		
28		

## Uploading Web Contents

The program can be used to upload web content or style sheets for registration on the TM-i. See the TM-i's Technical Reference Guide for the specifications of files that can be registered.

- 1 Click the (Upload Web Contents) button.

A	B	C	D
1			
2	Protocol	http	
3	IP Address	192.168.192.168/	
4	CGI Name	config_general_wired.cgi/set_general_wired.cgi	
5	Format	json	
6	User Name	epson	
7	Password		
8			
9	GET	SET	Upload Web Contents
10			Upload Certificate File
11			Upload SSL Setting Files (without CertificateChain)
12			Upload SSL Setting Files (with CertificateChain)
13	response		
14	success		
15	code		
16	HTTP status code		
17	Response body		

- 2 The file selection screen appears. Select the file to be uploaded to the TM-i. Click the (OPEN) button and the file starts to be uploaded.

- 3 The results are displayed in the "Response body".  
The following screen shows the case in which the file has been successfully uploaded.

A	B	C	D
14	HTTP status code	200	
15		<HTML>	
16		<HEAD>	
17		<link rel="stylesheet" href="style.css" type="text/css" />	
18		<TITLE>Operation is complete.</TITLE>	
19		</HEAD>	
20		<BODY BGCOLOR="#FFFFFF" TEXT="#000000">	
21		<script type="text/javascript">	
22		function GoBack() {	
23		var calledurl = document.referrer;	
24		location.href = calledurl;	
25		}	
26		</script>	
27		<CENTER>	
28		<FONT COLOR="#0000ff">Operation is complete.</FONT> 	
29		 	
30		<P>	
31		<A ID="pageback" HREF="#" onclick="GoBack();return false;">Go Back</A>	
32		</CENTER>	
33		</BODY>	
34		</HTML>	
35	Response body		
36			
37			
38			

## Uploading Server Authentication Certificate

- 1 Click the (Upload Certificate File) button.

	A	B	C	D
1				
2		Protocol	http	
3		IP Address	192.168.192.168/	
4		CGI Name	config_general_wired.cgi/set_general_wired.cgi	
5		Format	json	
6		User Name	epon	
7		Password		
8				
9		GET	SET	Upload Web Contents
10			Upload Certificate File	Upload SSL Setting Files (without CertificateChain)
11				Upload SSL Setting Files (with CertificateChain)
12		response		
13		success		
14		code		
15		HTTP status code		
16		Response body		
17				

- 2 The file selection screen appears. Select the certificate file to be uploaded to the TM-i. Click the (OPEN) button and the file starts to be uploaded.
- 3 The results are displayed in the "Response body".



## Uploading SSL Certificate

SSL certificates can be uploaded in the following two methods.

- Register the SSL setting files (without Certificate Chain file) (p. 73)
- Register the SSL setting files (with Certificate Chain file) (p. 73)

### Register the SSL setting files (without Certificate Chain file)

- 1 Click the (Upload SSL Setting Files (without CertificateChain) ) button.

A	B	C	D
1			
2	Protocol	http	
3	IP Address	192.168.192.168/	
4	CGI Name	config_general_wired.cgi/set_general_wired.cgi	
5	Format	json	
6	User Name	epson	
7	Password		
8			
9	GET	SET	Upload Web Contents
10			Upload Certificate File
11			Upload SSL Setting Files (without CertificateChain)
12			Upload SSL Setting Files (with CertificateChain)
13	response		
14	success		
15	code		
16	HTTP status code		
17	Response body		

- 2 The file selection screen appears. Select the private key file to be uploaded to the TM-i. Click the (OPEN) button.
- 3 The file selection screen appears. Select the SSL certificate file to be uploaded to the TM-i. Click the (OPEN) button and the file starts to be uploaded.
- 4 The results are displayed in the "Response body".

## Register the SSL setting files (with Certificate Chain file)

- 1 Click the (Upload SSL Setting Files (with CertificateChain) ) button.

	A	B	C	D
1				
2		Protocol	http	
3		IP Address	192.168.192.168/	
4		CGI Name	config_general_wired.cgi/set_general_wired.cgi	
5		Format	json	
6		User Name	epson	
7		Password		
8				
9		GET	SET	Upload Web Contents
10			Upload Certificate File	Upload SSL Setting Files (without CertificateChain)
11				Upload SSL Setting Files (with CertificateChain)
12		response		
13		success		
14		code		
15		HTTP status code		
16		Response body		
17				

- 2 The file selection screen appears. Select the private key file to be uploaded to the TM-i. Click the (OPEN) button.
- 3 The file selection screen appears. Select the SSL certificate file to be uploaded to the TM-i. Click the (OPEN) button.
- 4 The file selection screen appears. Select the SSL certificate chain file to be uploaded to the TM-i. Click the (OPEN) button and the file starts to be uploaded.
- 5 The results are displayed in the "Response body".