## Overview
Describes an overview of WebConfig API.

## Web API Specification
Describes the web API specification.

## Reference
Describes how to refer to and change setting values.
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.

Trademark

EPSON is a registered trademark of Seiko Epson Corporation.

Exceed Your Vision is registered trademark or trademark of Seiko Epson Corporation.

©Seiko Epson Corporation 2018. All rights reserved.
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 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 WebConfig API for the TM-H6000V.

Manual Content

The manual is made up of the following sections:

Chapter 1 Overview
Chapter 2 Web API Specification
Chapter 3 Reference
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

■ Overview of WebConfig API ................................................................................................................. 7
■ Printers ................................................................................................................................................... 8
   Support functions ................................................................................................................................ 8
   Interface ................................................................................................................................................. 8
■ Usage Instructions ................................................................................................................................ 9
   Acquisition and Configuration of Setting Values ..................................................................................... 9
   Digest authentication ............................................................................................................................. 11
■ Restrictions .......................................................................................................................................... 12

Web API Specification ............................................................................................................................... 13

■ URL of CGI .............................................................................................................................................. 13
■ HTTP Method ........................................................................................................................................... 13
■ Response ................................................................................................................................................ 13
   Response Header ................................................................................................................................... 13
   Response Body .................................................................................................................................... 14
■ Request .................................................................................................................................................. 15
   Transmission Capacity .......................................................................................................................... 15
   Request Header .................................................................................................................................... 15
   Request Body ......................................................................................................................................... 15
■ Parameter .............................................................................................................................................. 16
   GET method ......................................................................................................................................... 16
   PUT method ......................................................................................................................................... 17
   When a method that cannot be used is specified .................................................................................. 18
Overview

Overview of WebConfig API

WebConfig API is an API that can be included in your Web application in order to update the setting values of your TM printer.

The GET method, defined in HTTP (Hyper Text Transfer Protocol), is used to acquire setting values, and the PUT method is used to update the settings. The data is in JSON (JavaScript Object Notation) format.

After settings are updated with the PUT method, reset the printer to update the setting values.

Digest authentication and SSL/TLS transmission are used to ensure a secure environment.
Printers

- TM-H6000V

Support functions

Your printer includes a variety of functions for software settings. The functions that are supported (and not supported) by this API are shown in the following table.

<table>
<thead>
<tr>
<th>Function</th>
<th>Supported / Not supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>TM intelligent function</td>
<td>Supported</td>
</tr>
<tr>
<td>Customize Value</td>
<td>Not supported</td>
</tr>
<tr>
<td>Memory Switches</td>
<td>Not supported</td>
</tr>
<tr>
<td>Network settings</td>
<td>Not supported</td>
</tr>
</tbody>
</table>

Interface

Settings can be configured on printers with the following interfaces.

- Wired LAN
- Wireless LAN
Usage Instructions

Acquisition and Configuration of Setting Values

This section explains the system sequence and each element needed in order to acquire set values from printers and specify the settings by using the WebConfig API.

Acquisition and Configuration of Setting Values

1 : Printer setting values acquisition
2 : Creation of set values
   (Editing of acquired values or creation of data)
3 : Set values are sent to the printer
4 : Check that the "message" in the response body of the PUT response is "Success" and reset the printer.
5 : Reset the Printer
6 : Printer setting values acquisition
7 : Confirming the new settings

Application

Printer

GET Request()

GET Response(Specified values)

Returns specified values of the printer

PUT Request(Set Values)

PUT Response()

Saving of set values

30 seconds

GET Request()

GET Response(Specified Values)

Returns specified values of the printer

Response()

Reset the Printer

Rewriting setting values
Acquisition of setting values from the printer

The GET Request() is used to acquire setting values from the printer. The settings can be acquired from the following URLs.

- Used to acquire all data:
  https://<Printer’s IP address>/webconfig/api/v1/webconfig.cgi

- Used to acquire a specific key:
  https://<Printer’s IP address>/webconfig/api/v1/webconfig.cgi?keyname=<keyname1>,<keyname2>...

The printer's setting values are included in the GET Response(). The data is in JSON format.

Creation of setting values

Creation of each key value to configure the printer.

There are two setting methods: You can specify only the value of the specified key or you can edit the JSON data acquired by using the GET Response().

- Edit JSON data acquired from the printer.
- Specify only the value of the specified key.

For example:

For acquisition JSON data

```
... 
  "StatusNotification": { 
    "Active": "OFF", 
    "ID": "", 
    "Interval": "5", 
    "Name": "", 
    "Password": "(Not registered)", 
    "Url": "", 
    "UseProxy": "OFF", 
    "UseServerAuthentication": "OFF", 
    "UseUrlEncode": "ON"
... 
  } 

message" : "Success"
},
...
```

For edit data

```
... 
  "StatusNotification": { 
    "Active": "ON", 
    "ID": "", 
    "Interval": "5", 
    "Name": "PJ9F000156", 
    "Url": "http://statusnotificationserver.test/test.php", 
    "UseProxy": "OFF", 
    "UseServerAuthentication": "OFF", 
    "UseUrlEncode": "ON"
... 
  } 

message" : "Success"
},
...
```

Specify the key and value, see "Reference” on page 25.

Setting values are Sent to the Printer

The specified JSON data is sent to the printer by the PUT Request().

https://<Printer’s IP address>/webconfig/api/v1/webconfig.cgi

Check the Response

When a printer receives a PUT Request, it returns a PUT Response().

If the setting values are processed normally, the "message" parameter of the PUT Response() is "Success".

The values in the PUT Response () are not the values that was set in the printer. Rather, they are the setting values from the PUT Request().
Reset the Printer

The printer’s setting values are not updated simply through the successful processing of a PUT Request(). To update the setting values, the printer must be reset.

https://<Printer’s IP address>/webconfig/api/v1/reset.cgi

After the Response() is sent, the printer starts the reset process. It will take approximately 30 seconds until resetting is complete.

Printer settings acquisition

Acquire the printer’s setting values to confirm that the settings were updated. After a Response() is received, wait for the printer to reset and then use a GET Request() to acquire the printer’s setting values.

- Acquire all data
  https://<Printer’s IP address>/webconfig/api/v1/webconfig.cgi

- Acquire a specific key
  https://<Printer’s IP address>/webconfig/api/v1/webconfig.cgi?keyname=<keyname1>,<keyname2>...

The printer’s setting values are included in the response body of the GET Response() that is returned.

The JSON data format is used.

Confirming the new settings

Compare the values for each key set in the printer and the JSON set values acquired from the printer, and check that they have been properly revised.

Digest authentication

You need Digest authentication to communicate with the printer.

The default ID and Password are ID: epson, Pass: epson and are the same as the administrator for Network settings.
**Restrictions**

Manual uploading of certificate files are not possible. In order to upload these, it is necessary to use an uploading program, or upload using the TM-H6000V Utility.
Web API Specification

URL of CGI

- Getting or changing the settings:
  https://<Printer's IP address>/webconfig/api/v1/webconfig.cgi
- Printer reset:
  https://<Printer’s IP address>/webconfig/api/v1/reset.cgi

HTTP Method

- GET: Acquires setting values
- PUT: Updates setting values
Other methods such as OPTIONS and HEAD are also supported.

Response

The following content is included in the response.

Response Header

<table>
<thead>
<tr>
<th>Header</th>
<th>HTTP Method</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>GET</td>
<td>Value</td>
</tr>
<tr>
<td>Content-Type:</td>
<td>●</td>
<td>application/json; charset=utf-8</td>
</tr>
<tr>
<td>Access-Control-Allow-Origin:</td>
<td>●</td>
<td>Specify &quot;*&quot; in the header for permitting cross-domain communication if communication sources are not limited.</td>
</tr>
<tr>
<td>Access-Control-Allow-Methods:</td>
<td>●</td>
<td>PUT, GET, OPTIONS, HEAD</td>
</tr>
<tr>
<td>Access-Control-Allow-Headers:</td>
<td>●</td>
<td>Content-Type, Content-Length, Authorization</td>
</tr>
</tbody>
</table>
Chapter 2  Web API Specification

Response Body

<table>
<thead>
<tr>
<th>HTTP Method</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GET</td>
<td>The setting values are returned from the printer. For details of these return values, see &quot;GET method&quot; on page 16.</td>
</tr>
<tr>
<td>PUT</td>
<td>The request body is returned. These are not the setting values acquired from the printer. For details of these return values, see &quot;PUT method&quot; on page 17.</td>
</tr>
</tbody>
</table>

Table: Headers

<table>
<thead>
<tr>
<th>Header</th>
<th>GET</th>
<th>PUT</th>
<th>HEAD</th>
<th>OPTIONS</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>X-Content-Type-Options:</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>Prevents the browser from identifying JSON data as data other than JSON data. (Requires Internet Explorer 8 or later)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>nosniff</td>
</tr>
<tr>
<td>X-XSS-protection:</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>Enables the browser XSS filter function.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1; mode=block</td>
</tr>
<tr>
<td>X-Frame-Options:</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>Prevents clickjacking attacks. Capable of preventing script execution of frames and iframes.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>deny</td>
</tr>
<tr>
<td>Content-Security-Policy:</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>Detects and mitigates well known types of attacks including cross-site scripting (XSS) and data injection attacks.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>default-src 'none'</td>
</tr>
<tr>
<td>WWW-Authenticate:</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>Although digest authentication is necessary, this is specified if there is no authentication information or authentication fails (such as when the password is incorrect). It is not specified when digest authentication is completed normally.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Digest realm=&quot;&lt;IP address&gt;&quot;, nonce=&quot;xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx&quot;, qop=&quot;auth&quot;</td>
</tr>
</tbody>
</table>
**Request**

**Transmission Capacity**

The maximum request message (Request Header and Request Body) capacity is 65533 bytes.

**Request Header**

Please specify as follows.

<table>
<thead>
<tr>
<th>Header</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content-Type</td>
<td>application/json; charset=utf-8</td>
</tr>
<tr>
<td>Authorization</td>
<td>Digest username=&quot;epson&quot; realm=&quot;ByPassword&quot; nonce=&quot;xxxxxxxxxxxxxxxxxxxxxxxxx&quot;, qop=&quot;auth&quot;....</td>
</tr>
</tbody>
</table>

**Request Body**

<table>
<thead>
<tr>
<th>HTTP Method</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GET</td>
<td>Acquires the current setting values from the printer.</td>
</tr>
<tr>
<td></td>
<td>For details of these set values, see &quot;GET method&quot; on page 16.</td>
</tr>
<tr>
<td>PUT</td>
<td>Contains the values to configure the printer.</td>
</tr>
<tr>
<td></td>
<td>For details of these set values, see &quot;PUT method&quot; on page 17.</td>
</tr>
</tbody>
</table>
# Parameter

## GET method

GET method: Acquires the current setting values.

<table>
<thead>
<tr>
<th>GET Parameter</th>
<th>Response (status)</th>
<th>Response (body)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>• If acquiring all set values:</td>
<td></td>
<td></td>
<td>Settings acquired successfully. Reply consists only of the object of the specified key if the keyname is specified.</td>
</tr>
<tr>
<td>No GET parameters</td>
<td>200 OK</td>
<td>{</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>&quot;Setting&quot;: &lt;JSON object for the setting item specified in the key&gt;</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>&quot;message&quot;: &quot;Success&quot;,</td>
<td></td>
</tr>
<tr>
<td>• If acquiring a specific setting value:</td>
<td>503 Service Unavailable</td>
<td>{</td>
<td>Could not get permission to communicate via port 9100. Communication was not possible because printer is being used.</td>
</tr>
<tr>
<td>Specifies a keyname by the GET parameter.</td>
<td></td>
<td>&quot;Setting&quot;: {},</td>
<td></td>
</tr>
<tr>
<td>[format] keyname=&lt;JSON keyname you want to get&gt;</td>
<td></td>
<td>&quot;message&quot;: &quot;Cannot communicate with the printer: The other host interface may hold the communication&quot;,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• If acquiring multiple setting values:</td>
<td>500 Internal Server Error</td>
<td>{</td>
<td>Failed to acquire settings.</td>
</tr>
<tr>
<td>Separating with commas multiple keynames in GET parameter.</td>
<td></td>
<td>&quot;Setting&quot;: {},</td>
<td></td>
</tr>
<tr>
<td>[format] keyname=&lt;keyname1&gt;, &lt;keyname2&gt;...</td>
<td></td>
<td>&quot;message&quot;: &quot;Failed to get the settings&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>500 Internal Server Error</td>
<td></td>
<td>{</td>
<td>Failed due to insufficient memory. Repair is necessary if the problem occurs even after restarting the printer.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&quot;message&quot;: &quot;Failed: No enough memory&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>400 Bad Request</td>
<td></td>
<td>{</td>
<td>Failed to acquire settings. Keyname % not present in JSON data of keyname=% specified values. A keyname not found in the setting value JSON data has been specified.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&quot;Setting&quot;: {},</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>&quot;message&quot;: &quot;Specified key is not exist&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>400 Bad Request</td>
<td></td>
<td>{</td>
<td>Parameter other than &quot;keyname&quot; is present.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&quot;message&quot;: &quot;Invalid Parameter&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>401 Authentication Required</td>
<td></td>
<td>As authentication is carried out by lighttpd, the response body is</td>
<td>Authentication information is required.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>returned by lighttpd.</td>
<td></td>
</tr>
</tbody>
</table>

If multiple keys are specified for keyname, "Success" is returned when the specified value for a single keyname is acquired even though several keyname cannot be acquired due to some error. Check each key value accordingly.
PUT method

PUT method: Updates setting values.

<table>
<thead>
<tr>
<th>PUT Parameter</th>
<th>Response (status)</th>
<th>Response (body)</th>
<th>Description</th>
</tr>
</thead>
</table>
| Specifies several set of keyname and value by the following way. | 200 OK | {  
| [format]  
{ "Setting" : {  
| <keyname1 you want to modify> : <value you want to set>,  
| <keyname2 you want to modify> : <value you want to set>,  
| ... ,  
| }  
| }  
| • You need to specify keyname and value in the prescribed manner as described at "Reference" on page 25.  
| • Any characters in PUT parameter must be escaped as described at "Escape Sequence" on page 19. |  | Updating was successful. Refer to "Reset the Printer" on page 11. |
| | 413 Request Entity Too Large | {  
| | "message": "Request Entity Too Large"  
| | }  
| | Failed to update settings. |
| | 500 Internal Server Error | {  
| | "message": "Failed to update the settings"  
| | }  
| | Failed due to insufficient memory. Repair is necessary if the problem occurs even after restarting the printer. |
| | 503 Service Unavailable | {  
| | "message": "Cannot communicate with the printer: The other host interface may hold the communication"  
| | }  
| | Could not get permission to communicate via port 9100. Communication was not possible because printer is being used. |
| | 401 Authentication Required | As authentication is carried out by lighttpd, the response body is returned by lighttpd. |
| | 400 Bad Request | {  
| | "message": "Setting not found."
| | Parameter other than "Setting" is present. |
| | 400 Bad Request | {  
| | "message": "Setting values should be JSON object"  
| | }  
| | Setting values are not in the JSON format. |
When a method that cannot be used is specified

"405 Method Not Allowed" or "403 Forbidden" is returned.

<table>
<thead>
<tr>
<th>PUT Parameter</th>
<th>Response (status)</th>
<th>Response (body)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>400 Bad Request</td>
<td>{</td>
<td>The JSON escape process is not valid.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&quot;message&quot;: &quot;Special characters must be escaped&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>}</td>
<td></td>
</tr>
</tbody>
</table>
**Characters**

**Character Code**

UTF-8

**Escape Sequence**

According to the JSON RFC (Request for Comments), the setting character string transmitted by PUT must use the following escape sequences.

This also applies to the JSON character string acquired using GET Response().

<table>
<thead>
<tr>
<th>Escape notation</th>
<th>Original character</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;</td>
<td>&quot;</td>
<td>Double quotation</td>
</tr>
<tr>
<td>\</td>
<td>\</td>
<td>Back slash</td>
</tr>
<tr>
<td>\b</td>
<td></td>
<td>Back space</td>
</tr>
<tr>
<td>\f</td>
<td></td>
<td>New page</td>
</tr>
<tr>
<td>\n</td>
<td>-</td>
<td>New line</td>
</tr>
<tr>
<td>\r</td>
<td></td>
<td>Line feed</td>
</tr>
<tr>
<td>\t</td>
<td></td>
<td>Tab</td>
</tr>
</tbody>
</table>

Escape is not used for uXXXX (hexadecimal character strings) in Japanese, etc.

**Passwords**

To ensure security, all passwords are hashed. They are displayed as follows:

- When registered: (Registered)
- When not registered: (Not registered)

“Registered” and “Not Registered” cannot be used as a password.

When registering/changing a password, please replace the (Registered) or (Not registered) string with the desired password.

**Operation specifications**

**Printer Response Time**

Response is within 10 seconds.
**Example of Request and Response**

Here is an example of acquiring the ServerDirectPrint and StatusNotification settings. The following keys are acquired and updated.

- **ePOS-Print**: Turn Active ON. It is turned OFF in the factory default settings.
- **Printer List**: Set the Device IDs and other printer information.
- **Server Direct Print**: Specify the server and applications for Server Direct Print.
- **Status Notification**: Specify the server and applications for Status Notification.

### GET Request

Request Header

```plaintext
GET /webconfig/api/v1/webconfig.cgi?keyname=ePOS-Print,PrinterList,ServerDirectPrint,StatusNotification HTTP/1.1
Host: <http://192.168.192.20/>
Authorization: Digest username="epson", realm="ByPassword", nonce="", uri="/webconfig/api/v1/webconfig.cgi",
response="f708199215ba938f85ae77c373c192c2", opaque=""
```

Request Body is none
GET Response

The setting values for ePOS-Print, PrinterList, ServerDirectPrint and StatusNotification are returned in the response body.

Response Header

```plaintext
HTTP/1.1 200 OK
Access-Control-Allow-Origin: *
Access-Control-Allow-Methods: PUT, GET, OPTIONS, HEADER
Access-Control-Allow-Headers: Content-Type, Content-Length, Authorization
Content-Type: application/json; charset=utf-8
X-Content-Type-Options: nosniff
X-XSS-protection: "1; mode=block"
X-Frame-Options: deny
Content-Security-Policy: default-src 'none'
Connection: close
Transfer-Encoding: chunked
Date: Wed, 23 Aug 2017 07:46:22 GMT
Server: lighttpd
```

Response Body

```json
{  "Setting": {  "ePOS-Print": {  "Active": "OFF"  }  "PrinterList": {  "Printer1": {  "DeviceID": "local_printer",  "IPAddress": "127.0.0.1",  "ModelName": "TM-H6000V"  }  }  "ServerDirectPrint": {  "Active": "OFF",  "CutReserveTimeout": "2",  "ID": ",  "Interval1": "5",  "Interval2": "5",  "Interval3": "5",  "Name": "ECCN905633",  "Password": "(Not registered)",  "Url1": ",  "Url2": ",  "Url3": ",  "UseProxy": "OFF",  "UseServerAuthentication": "OFF",  "UseUrlEncode": "ON"  },  "StatusNotification": {  "Active": "OFF",  "ID": ",  "Interval": "5",  "Name": "ECCN905633",  "Password": "(Not registered)",  "Url": ",  "UseProxy": "OFF",  "UseServerAuthentication": "OFF",  "UseUrlEncode": "ON"  }  },  "message": "Success"}
```
PUT request

The acquired data is edited as shown below, and then added to the response body. Keys that are not specified can be deleted.

**ePOS-Print**
- **Active:** OFF

**Printer List**
- **Printer1**
  - **DeviceID:** local_printer
    This setting can be configured according to the application.
  - **IPAddress:** 127.0.0.1
    Do not change this setting. Otherwise, printing will not be possible.
  - **ModelName:** TM-H6000V
    Do not change this setting. Otherwise, printing will not be possible.

**ServerDirectPrint**
- **Active:** ON
- **Name:** Floor_Printer
- **url1:** Server address/sample program path for Server Direct Print

**StatusNotification**
- **Active:** ON
- **Name:** Floor_Printer
- **url:** Server address/sample program path for Status Notification
Chapter 2  Web API Specification

Request Header

```plaintext
PUT /webconfig/api/v1/webconfig.cgi HTTP/1.1
<Host name or IP address>
Authorization: Digest username="epson", realm="ByPassword", nonce="", url="/webconfig/api/v1/webconfig.cgi",
response="0a3e57cca43d8221d942d13aeb377658", opaque=""
Content-Type: application/json
```

Request Body

```json
{
  "Setting": {
    "ePOS-Print": {
      "Active": "ON"
    }
  },
  "PrinterList": {
    "Printer1": {
      "DeviceID": "local_printer",
      "IPAddress": "127.0.0.1",
      "ModelName": "TM-H6000V"
    }
  },
  "ServerDirectPrint": {
    "Active": "ON",
    "CutReserveTimeout": "2",
    "ID": ",
    "Interval1": "5",
    "Interval2": "5",
    "Interval3": "5",
    "Name": "Floor_Printer",
    "Url1": "http://192.168.192.10/Test_print.php",
    "Url2": ",
    "Url3": ",
    "UseProxy": "OFF",
    "UseServerAuthentication": "OFF",
    "UseUrlEncode": "ON"
  },
  "StatusNotification": {
    "Active": "ON",
    "ID": ",
    "Interval": "5",
    "Name": "Floor_Printer",
    "UseProxy": "OFF",
    "UseServerAuthentication": "OFF",
    "UseUrlEncode": "OFF"
  }
}
```
## Put Response

### Response Header

```
HTTP/1.1 200 OK
Access-Control-Allow-Origin: *
Access-Control-Allow-Methods: PUT, GET, OPTIONS, HEADER
Access-Control-Allow-Headers: Content-Type, Content-Length, Authorization
Content-Type: application/json; charset=utf-8
X-Content-Type-Options: nosniff
X-XSS-protection: "1; mode=block"
X-Frame-Options: deny
Content-Security-Policy: default-src 'none'
Connection: close
Transfer-Encoding: chunked
Date: Wed, 23 Aug 2017 07:47:15 GMT
Server: lighttpd
```

### Response Body

```
{
  "Setting": {
    "ePOS-Print": {
      "Active": "ON"
    },
    "PrinterList": {
      "Printer1": {
        "DeviceID": "local_printer",
        "IPAddress": "127.0.0.1",
        "ModelName": "TM-H6000V"
      }
    },
    "ServerDirectPrint": {
      "Active": "ON",
      "CutReserveTimeout": "2",
      "ID": "",
      "Interval1": "5",
      "Interval2": "5",
      "Interval3": "5",
      "Name": "Floor_Printer",
      "Password": "(Not registered)",
      "Url1": "http://192.168.192.10/Test_print.php",
      "Url2": "",
      "Url3": "",
      "UseProxy": "OFF",
      "UseServerAuthentication": "OFF",
      "UseUrlEncode": "ON"
    },
    "StatusNotification": {
      "Active": "ON",
      "ID": "",
      "Interval": "5",
      "Name": "Floor_Printer",
      "Password": "(Not registered)",
      "UseProxy": "OFF",
      "UseServerAuthentication": "OFF",
      "UseUrlEncode": "ON"
    }
  },
  "message": "Success : Please confirm by get again and You need to reset the printer to apply settings."
}
```
This chapter explains items that can be acquired from the printer, as well as items and values that can be set. When using GET Method, this is included in the response body. With the PUT method, place them in the request body. When creating a request body in a PUT Request(), you can add only the items to be updated, and use only the items that are included in the GET response body.

<table>
<thead>
<tr>
<th>Key 1</th>
<th>Key 2</th>
<th>Key 3</th>
<th>Key 4</th>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ePOS-Print</td>
<td></td>
<td></td>
<td></td>
<td>ePOS-Print setting</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Active</td>
<td>Sets to whether to enable or disable ePOS-Print. When using the following functions, it is necessary to set the value of this key to “ON”.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Server Direct Print</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• ePOS-Device</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Status Notification</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>“OFF”, “ON”</td>
<td></td>
</tr>
<tr>
<td>ePOS-Device</td>
<td></td>
<td></td>
<td></td>
<td>ePOS-Device setting</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Active</td>
<td>Sets to whether to enable or disable ePOS-Device.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>“OFF”, “ON”</td>
<td></td>
</tr>
<tr>
<td>Printer List</td>
<td></td>
<td></td>
<td></td>
<td>Printer list that is set with the WebConfig API.</td>
<td></td>
</tr>
<tr>
<td>Printer1</td>
<td></td>
<td></td>
<td></td>
<td>Setting for the TM-H6000V.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DeviceID</td>
<td></td>
<td></td>
<td>IDs that identify printer devices.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DeviceID</td>
<td></td>
<td></td>
<td>Device ID specified for “local_printer” or the printer. String with a length of 1 to 30 characters. Characters that can be used are single-byte alphanumeric characters (0 to 9, a to z, A to Z), “_”, “.” and “-”. There must not be any duplicate string for another DeviceID.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>IPAddress</td>
<td></td>
<td></td>
<td>Specify the printer IP Address.</td>
<td>“127.0.0.1”</td>
</tr>
<tr>
<td></td>
<td>ModelName</td>
<td></td>
<td></td>
<td>Specify the printer model name.</td>
<td>“TM-H6000V”</td>
</tr>
<tr>
<td>Key 1</td>
<td>Key 2</td>
<td>Key 3</td>
<td>Key 4</td>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>---------------</td>
<td>---------------</td>
<td>---------------</td>
<td>---------------</td>
<td>-----------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>ProxyInfo</td>
<td></td>
<td></td>
<td></td>
<td>Proxy settings.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>To use a proxy server, set the following keys to &quot;ON&quot;.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• UseProxy of ServerDirectPrint</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• UseProxy of StatusNotification</td>
<td></td>
</tr>
<tr>
<td>Url</td>
<td></td>
<td></td>
<td></td>
<td>Specify the proxy server URL.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>The communication destination server URL string.</td>
<td></td>
</tr>
</tbody>
</table>
|               |               |               |               | Empty string or string not exceeding 2043 characters that starts with "http://" or "https://".
|               |               |               |               | Single-byte alphanumeric characters (0 to 9, a to z, A to Z),"_","-","!","~","*","\\","\",",", 
|               |               |               |               | 
|               |               |               |               | Port Specify the proxy server port number.                                 |
|               |               |               |               | "0" to "65535"                                                            |
|               |               |               |               | ID Specify the proxy server authentication ID.                              |
|               |               |               |               | Empty string or string with 1 to 30 characters.                            |
|               |               |               |               | Characters that can be used are single-byte alphanumeric characters (0 to 9, a to z, A to Z),"_","-","!","~","*","\",",", 
|               |               |               |               | 
|               |               |               |               | Password Specify the proxy server authentication password.                 |
|               |               |               |               | Empty string or string with 1 to 30 characters.                            |
|               |               |               |               | Characters that can be used are single-byte alphanumeric characters (0 to 9, a to z, A to Z),"_","-","!","~","*","\",",", 
|               |               |               |               | 
| ServerDirectPrint |               |               |               | Server direct print settings.                                              |
| Active        |               |               |               | Specify whether server direct printing is enabled/disabled.                |
|               |               |               |               | "OFF","ON"                                                               |
| Name          |               |               |               | Specify the ID for identifying the communication source (identification information transmitted to the server). |
|               |               |               |               | Empty string or string with 1 to 30 characters.                            |
|               |               |               |               | Characters that can be used are single-byte alphanumeric characters (0 to 9, a to z, A to Z),"_","-","!","~","*","\",",", 
|               |               |               |               | 
|               |               |               |               | The printer serial number is used for "Name" when the initial value or an empty string is specified. It is left empty if the printer serial number is not set. 
| ID            |               |               |               | Specify the Digest authentication ID.                                      |
|               |               |               |               | Empty string or string with 1 to 30 characters.                            |
|               |               |               |               | Characters that can be used are single-byte alphanumeric characters (0 to 9, a to z, A to Z),"_","-","!","~","*","\",",", "
<p>| | | | |
|               |               |               |               |</p>
<table>
<thead>
<tr>
<th>Key 1</th>
<th>Key 2</th>
<th>Key 3</th>
<th>Key 4</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Password</td>
<td></td>
<td></td>
<td></td>
<td>Specify the Digest authentication Password.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Empty string or string with 1 to 30 characters.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Characters that can be used are single-byte alphanumeric characters (0 to 9, a to z, A to Z), &quot;,&quot;, &quot;,&quot;, and &quot;:&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>The following cannot be specified.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>&quot;Registered,&quot; &quot;Not Registered&quot;</td>
</tr>
<tr>
<td>Url1/Url2/Url3</td>
<td></td>
<td></td>
<td></td>
<td>Specifies whether to enable or disable the Server 1/Server 2/Server 3.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>The communication destination server URL string.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Empty string or string not exceeding 2043 characters that starts with &quot;http://&quot; or &quot;https://&quot;.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Single-byte alphanumeric characters (0 to 9, a to z, A to Z), &quot;,&quot;, &quot;,&quot;, and &quot;:&quot;</td>
</tr>
<tr>
<td>Interval1/Interval2/Interval3</td>
<td></td>
<td></td>
<td></td>
<td>Specifies whether to enable or disable the Server 1/Server 2/Server 3.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>&quot;0&quot; to &quot;86400&quot;</td>
</tr>
<tr>
<td>UseServerAuthentication</td>
<td></td>
<td></td>
<td></td>
<td>Specify whether server authentication (HTTPS) is used.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>&quot;OFF,&quot; &quot;ON&quot;</td>
</tr>
<tr>
<td>UseProxy</td>
<td></td>
<td></td>
<td></td>
<td>Specify whether a proxy server is used.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>&quot;OFF,&quot; &quot;ON&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>When this setting is &quot;ON&quot;, is it necessary to specify &quot;ProxyInfo&quot;.</td>
</tr>
<tr>
<td>UseUrlEncode</td>
<td></td>
<td></td>
<td></td>
<td>Specify whether a URL encode is used.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>&quot;OFF,&quot; &quot;ON&quot;</td>
</tr>
<tr>
<td>CutReserveTimeout</td>
<td></td>
<td></td>
<td></td>
<td>Not used</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>Key 1</td>
<td>Key 2</td>
<td>Key 3</td>
<td>Key 4</td>
<td>Description</td>
</tr>
<tr>
<td>---------------</td>
<td>---------------</td>
<td>---------------</td>
<td>------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>StatusNotification</td>
<td></td>
<td></td>
<td></td>
<td>Status notification settings.</td>
</tr>
<tr>
<td>Active</td>
<td></td>
<td></td>
<td></td>
<td>Specify whether status notification is enabled/disabled.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>“OFF”, “ON”</td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td></td>
<td></td>
<td></td>
<td>Specify the ID for identifying the communication source</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Empty string or string with 1 to 30 characters. Characters that can be used are single-byte alphanumeric characters (0 to 9, a to z, A to Z), “_”, “.” and “-”. The printer serial number is used for “Name” when the initial value or an empty string is specified. It is left empty if the printer serial number is not set.</td>
<td></td>
</tr>
<tr>
<td>ID</td>
<td></td>
<td></td>
<td></td>
<td>Specify the Digest authentication ID.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Empty string or string with 1 to 30 characters. Characters that can be used are single-byte alphanumeric characters (0 to 9, a to z, A to Z), “_”, “.” and “-”.</td>
<td></td>
</tr>
<tr>
<td>Password</td>
<td></td>
<td></td>
<td></td>
<td>Designates the password used for Digest authentication.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Empty string or string with 1 to 30 characters. Characters that can be used are single-byte alphanumeric characters (0 to 9, a to z, A to Z), “_”, “.” and “-”. The following cannot be specified. “Registered”, “Not Registered”</td>
<td></td>
</tr>
<tr>
<td>Interval</td>
<td></td>
<td></td>
<td></td>
<td>Specify the server data transmission interval time.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>“0” to “86400”</td>
<td></td>
</tr>
<tr>
<td>UseServerAuthentication</td>
<td></td>
<td></td>
<td></td>
<td>Specify whether a server authentication (HTTPS) is used.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>“OFF”, “ON”</td>
<td></td>
</tr>
<tr>
<td>UseProxy</td>
<td></td>
<td></td>
<td></td>
<td>Specify whether a proxy is used.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>“OFF”, “ON”</td>
<td>When this setting is “ON”, it is necessary to specify “ProxyInfo”.</td>
</tr>
<tr>
<td>UseUrlEncode</td>
<td></td>
<td></td>
<td></td>
<td>Specify whether a URL encode is used.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>“OFF”, “ON”</td>
<td></td>
</tr>
</tbody>
</table>