

# ScaleWebLink manual



## Index

1.	Intro	duction	3
2.	Setu	p	3
2	.1.	Add scale	3
2	.2.	Protocol	3
2	.3.	Action and command setup	4
3.	Gett	ing data	5
3	.1.	POST structure	5
3	.2.	Response structure	5
4.	Erro	codes	6
5.	Testi	ng	7
6.	Sim	ulator	9
6	.1.	Create simulator	9
7.	Con	tact information	1

# 1. Introduction

ScaleWebLink is used for communication with scale via SSL encrypted REST web services. ScaleWebLink is simple way to communicate with scale that is connected to cloud using <u>CloudScaleLink</u>.

Each CloudScaleLink module has unique MID and PIN. MID and PIN represent authorization token to authorize access to scale.

# 2. Setup

## 2.1. Add scale

To configure ScaleWebLink you must first register at Scale Monitor. You shall do that via link provided by our partner or by accessing <u>https://register.scale-monitor.com</u>, if no link was provided to you.

After login you must add scale.

🗮 Menu								🕫 🕽 🖓 🖓 🖓 🖓 🖓 🖓
Scale monitor	Virtual indicators	Knowledge base	Forum	Sunnart			×	4
Add scale			S	•	) Scale	Monito	۲ <sup>тм</sup>	
			21	Scale name:		API test		
				Manufacturer:	Ŧ	Mettler Toledo		
Ľ			17	Scale model:	No. of models available: 0			
359	DEGTC	AS 220.	X7	Connection type:		Cloud scale link	~	Demo
				Module ID (MID): CSL: ##Scan QR code	MID CSL	MID: 123456 CSL: ABC123 Scale-Monitor.com info@scale-monitor.com +386 2 320 33 46	10R 45	
Demo-S:	imulator	DFWLB-	2		Subi	mit		DINI DFW-L

## 2.2. Protocol

After adding a scale, you must set up ScaleWebLink which can be found in Menu→Protocol→ ScaleWebLink.

General	Connection	Ρ	rotocol	Printer Scanner			
General	Continuous sending		Service	ScaleWebLink		Protocols	

In ScaleWebLink menu you must select Protocol and Protocol version that will be used for connected scale.

Below is example of protocol selected for Mettler Toledo scales.



General	Connection	Protoc	ol Printer	Sca	anner	
General	Continuous sendin	g Servi	ce ScaleWe	bLink	Protocols	
ScaleWebLink url:						<b>@</b> Сору
Protocol:		MT SICS				
Protocol	version:		MT SICS_1			

## 2.3. Action and command setup

After the protocol and its version have been selected the actions and commands for the ScaleWebLink can be set up.

In the table below the protocol and version settings there are 2 columns: Action (this is used to identify the action that the ScaleWebLink will execute) and Command (this is the command ScaleWebLink will send to the scale).

General	Connection	Protocol	Printer	Scanner					
General	Continuous sending	Service	ScaleWebL	ink Protocols					
ScaleWe	bLink url:		·	Copy					
Protocol	:	Ν	MT SICS	~					
Protocol version: MT SICS_1			MT SICS_1	~					
Add									
Action			Cor	nmand 🔅					
Get_We	eight		RE	AD ALL( Command: SIX1 )					
Tare			TA	RE( Command: TI )					
Zero			ZE	RO( Command: ZI )					
Test			SI	(Command: SI)					
Clear			CL	CLEAR( Command: TAC )					
Add									
Save	Save : API test Deload to API								

There is already a preset action (Get\_Weight) this action cannot be changed but it can have a selected command for it to send to the scale.

Action	Command	\$
Get_Weight	READ ALL( Command: SIX1 )	•

New actions can be easily added by clicking on the "Add" button, this will add a row to the actions table, a custom action can be entered and a command that will be sent with it.

Example:

Protocol - MT SICS; Command - Tare scale (T)

Action	Command
Tare	Т



# 3. Getting data

## 3.1. POST structure

ScaleWebLink requires module data (MID – Module ID and PIN – Module PIN) to identify the module and the action that will be used.

To accomplish this the data must be posted to the API in a JSON object, with the following parameters:

- MID (This is the module ID)
- PIN (This is the module PIN)
- Action (The action "Get\_Weight" or any custom action created by the user in step 1.2.)

Example:

#### {"mid":"yourMID","pin":"yourCSLPIN","action":"Get\_Weight"}

MID and PIN (CSL) can be found on the label of the module:



In case of virtual CloudScaleLink MID and PIN will be provided via email.

## 3.2. Response structure

The ScaleWebLink will respond with a JSON object.

Example:

```
{
```

}

```
"error": 0,
"errorCode": null,
"errorMsg": "",
"scaleResponse": "SIX1 S 0 N R R 0 0 0 1 P 0.068
                                                      0.000
                                                              0.068 kg",
"dateTime": "Wed, 04 Sep 2024 11:07:51 GMT",
"weightData": {
       "net": 0,
       "gross": 0.068,
       "tare": 0.068,
       "unit": "kg",
       "stability": 1,
       "expectedResponseStatus": null,
       "expectedResponseMsg": null
}
```

Parameters:

Parameter	Description
error	If value is 0 then there is no error; if value is 1
	then an error has occurred
errorCode	A code for the error that occurred, detailed
	descriptions can be found in the error codes
	table
errorMsg	A short message describing the error
scaleResponse	The string received from the scale as a
	response to the sent command
dateTime	The UTC date and time of when the action
	was executed
weightData	Relevant data for weight received from the
	scale

Weight data:

Parameter	Description
net	Net weight received from scale; null if no data
	was received
gross	Gross weight received from scale; null if no
	data was received
tare	Tare value received from scale; null if no data
	was received
unit	The unit received from the scale; null if no
	data was received
stability	Stability status of the scale; null – no data
	was received; 0 – scale not stable; 1 – scale
	stable
expectedResponseStatus	Returns if the value of the response is ok; null
	– not set; 0 - not ok; 1 - ok
expectedResponseMsg	Returns the message set with the
	corresponding command in the protocol
	settings.

## 4. Error codes

If an error occurred while getting the response for the sent action then an error code will be sent with the response, in the below table there are detailed descriptions of the possible error codes.

Error code	Description
ERR01	The post data required to perform an action
	was not provided or was not in a valid JSON
	format
ERR02	Module ID (MID) was not provided in the
	received parameters



ERR03	Module PIN was not provided in the received parameters
ERR04	An action was not provided in the received parameters
ERR05	The provided action could not be found in the list of saved actions, make sure to check the action is valid
ERR06	No scale monitor found connected to the received topic, make sure the topic is valid
ERR07	Command data not found, make sure a valid command is selected for the received action
ERR08	Command data is missing the command string, check the provided protocol and make sure the selected command has a valid "command" property
ERR09	Service not available, someone else is communicating with the scale connected to the entered MID and PIN at this time
ERR10	Timed out; no response received in the allotted time frame, make sure the scale is connected.

# 5. Testing

To test the actions and/or scale connection the "API test" can be used. The "API test" can be accessed under ScaleWebLink settings (Protocol -> ScaleWebLink), using the "API test" button at the bottom of the page.

General	Connection	Protoc	ol	Printer Sca	inner							
General	Continuous sendin	g Serv	ScaleWebLink	Protocols								
ScaleWe	bLink url:					Ø	Сору					
Protocol	:		MT S	SICS								~
Protocol	version:		MT S	SICS_1								~
Add											_	
Action				Commar	d							8
Get_We	ight			READ AL	READ ALL( Command: SIX1 )							
Tare				TARE( C	TARE( Command: TI )						Remove	
Zero				ZERO( C	ZERO(Command: ZI)					~	Remove	
Test				SI( Com	SI( Command: SI )					Remove		
Clear				CLEAR(	CLEAR(Command: TAC)						Remove	
Add												/
Save	Save CAPI test Upload to API											

Clicking the "API test" button will open a new window, with the option to select an action, a button to send the action and a response display window.



		×
Action:	Get_Weight	~
C Send		
Response:		

In this example the following settings have been used:

Protocol: MT SICS Version: MT SICS\_1 Action: Get\_Weight (Set to send SIX1 command)

After sending the action this was the received response:

Get Weight		
Get_weight		
I, ": "SIX1 S 0 N R R 0 0 0 1 P 0.068 d, 04 Sep 2024 11:17:19 GMT", 68, 8, 9, esponseStatus": null,	0.000	0.068 kg",
	I, *': "SIX1 S 0 N R R 0 0 0 1 P 0.068 td, 04 Sep 2024 11:17:19 GMT", 68, 8,	I, ": "SIX1 S 0 N R R 0 0 0 1 P 0.068 0.000 td, 04 Sep 2024 11:17:19 GMT", 68, 8,



# 6. Simulator

By using Scale Monitor simulator you can simulate scale and test API without having physical scale.

## 6.1. Create simulator

To create a new simulator first open the menu in the top left corner, then navigate to the "Scale simulation" tab.



Clicking on the plus icon in the "Presets" tab will open a window for creating a new simulator.

Presets		
Dini Argeo WALL-E WET6-1	÷	ľ
Mettler Toledo XPR204	÷	ľ
MQTT USER - MT SICS	÷	ľ
MT SICS - RS232	÷	ľ
OHAUS Explorer 6202	÷	ľ
OHAUS Ranger 7000 R71MD60	÷	ľ
Radwag PS 1000.5Y	÷	ľ
Sartorius Evolution EV01S1	Ŷ	ľ
+		

After entering all the desired data set the "Connection type" to "Scale link" and click the "Save" button. After the Simulator is saved it will generate its MID and PIN and display it at the top.



						X
MID	: <b>SIM</b> PIN	:				
Title:		API Simulator				
Connec	ction type:	Scale link				~
Protocol: MT SICS					~	
Firmware major release:						
Firmwa	irmware minor release:					
Model	name:					
Unit:		kg				•
	FROM	м		то	RESOLUTION(D)	
1	0		6		0.01	
Save	2					

The new simulator will be added to the "Presets" window.

Presets				
API Simulator	÷	ľ		
Dini Argeo WALL-E WET6-1		ľ		
Mettler Toledo XPR204		ľ		
MQTT USER - MT SICS	÷	ľ		
MT SICS - RS232	Ŷ	ľ		
OHAUS Explorer 6202	÷	ľ		
OHAUS Ranger 7000 R71MD60	÷	ľ		
Radwag PS 1000.5Y	÷	ľ		
Sartorius Evolution EV01S1	÷	ľ		
+				

Clicking on the added simulator will connect it to the cloud, it can now be accessed with its MID and PIN .

Presets		
API Simulator	Ŷ	ľ
Dini Argeo WALL-E WET6-1	÷	ľ
Mettler Toledo XPR204	÷	ľ
MQTT USER - MT SICS	÷	ľ
MT SICS - RS232	÷	ľ
OHAUS Explorer 6202	÷	ľ
OHAUS Ranger 7000 R71MD60	÷	ľ
Radwag PS 1000.5Y	÷	ľ
Sartorius Evolution EV01S1	÷	ľ
+		

# 7. Contact information

For any additional information or technical support, you can contact us at:

support@scale-monitor.com