

## SOAP HTTP Web Services Interface for WEM-MX & WEPM

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By: Technical Support

Firmware Release Version: 040714\_MX3\_B

SOAP Version: 1.1

1. SOAP HTTP web service client has been integrated in Energy Tracking's four product lines, namely WEM-MX 5 Amp, WEM-MX 333mV, WEPM and WEM-IO.
2. The '**Overwrite File Counter**' logic in the '[Schedule Reporting Setup](#)' page will be utilized. When only SOAP service is enabled, this value will be set to 0 or 1.
3. The response message must include '**Data successfully saved.**' The circular buffer data will only be deleted upon receipt of 200 OK and 'Data successfully saved.'
4. The checkbox '**Do not save to file**' must be unchecked to enable reporting load profile data from flash memory.
5. Enable Load Profile Logging. '[Setup](#) >> [Schedule Reporting Setup](#)'

Report Periodicity: <input type="text" value="60"/> minutes ( $\geq 1$ )
Send report upon end of interval: <input checked="" type="checkbox"/>
Disable Load Profile: <input type="checkbox"/>
Do not save to file: <input type="checkbox"/>
Force DayTime Time Synchroniz.: <input type="checkbox"/> Check to Enable
Logging Interval: <input type="text" value="60"/> minutes ( $\geq 1$ )
Overwrite File Counter: <input type="text" value="0"/> ( $\geq 0 \leq 2$ )

### Reporting:

Data can be reported via FTP and SOAP. If you combine FTP client reporting with SOAP then it will be up to the SOAP Web Server to provide a response to delete the load profile data.

## **Default Setup:**

In the menu options, you will see a link to '[SOAP Service](#)'.

The following fields are critical to use SOAP HTTP Service.

<b>Web Services Setup</b>	
Enable Web Services	<input checked="" type="checkbox"/> Check to Enable.
Debug Web Services	<input type="checkbox"/> Check to Enable.
Domain:	www.etanalytics.com
SOAP Path:	ETWSMeter/Service1.asmx
Method Name:	ReportData
Method Parameter:	strReport
SOAP Action:	http://www.energytracking.com/ReportData
SOAP Envelope	http://schemas.xmlsoap.org/soap/envelope/
SOAP XMLNS:	www.energytracking.com
SOAP XSI:	http://www.w3.org/2001/XMLSchema-instance
SOAP XSD:	http://www.w3.org/2001/XMLSchema
<input type="button" value="Submit"/> <input type="button" value="Cancel"/>	

## **Setup Fields:**

**Domain:** This is a fully qualified domain name which the meter will open a connection to.

**SOAP Path:** Is the virtual directory name / Class Name.

**Method Name:** This is the method that will be called by the client / hardware.

**Method Parameter:** Is the string parameter that will contain the data sent by the client hardware.

#### SOAP Action:

The SOAP Action HTTP request header field is used to indicate the intent of the SOAP HTTP request. The value is a URI identifying the intent. The intent in the above example is to call the method 'ReportData'.

**SOAP Envelope:** Use the default values in the example above.

**SOAP XSI:** Use the default values in the example above.

**SOAP XSD:** Use the default values in the example above.

**SOAP XMLNS:** Provide your unique name space. **Note:** Please do **NOT** place 'http:/' in front of the XMLNS.

#### WSDL Example:

Contact ET for the file if not provided.

#### Miscellaneous:

##### Reporting Periodicity:

This is based on the configuration in 'Setup >> Schedule Reporting Setup'. Load Profile reporting must be enabled. See Page 1 Step 6.

#### **IMPORTANT:**

Upon a successful POST, the server must return the below string for the device to clear the load profile data.

Return "<DS>01</DS>"

#### **Case sensitive!!!**

There are valid and logical reasons for requesting this response.

1. When the closing data (...</soap: Envelope>) is sent by the device, the server responds with a 'HTTP/1.1 200 OK'. While

TCP/IP takes care off packet corruption, we have seen that under certain rare conditions such as using CDMA / wireless communications, data can get corrupted.

In such a case, the XML island data parsing will fail and the server can abort and **not** send the "<DS>01</DS>" message. This will cause the load profile data to accumulate in the device's circular buffer and will be re-transmitted on the next scheduled event.

2. Other operations or circumstances can also provide a valid 'HTTP/1.1 200 OK' by the Web Service Server but, may result in loss of data.

Such a case would occur when the database is on a separate server, network communications to the database are off-line, the database may have a problem or the database server is being re-booted after a patch.