

SMT Analytics API Specification

Version 1.1

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Introduction

XML requests are sent to <https://analytics.smtresearch.ca/api/?action=>

Valid Actions:

Action	Required Parameter(s)	Description
login	user_username user_password	Create a session
logout		Destroys a session
listNode	jobID	Lists all nodes in a job
listSensor	nodeID	Lists all sensors attached to a node
listSensorData	sensorID	Lists all sensor data for a sensor
listJob	projectID	List all jobs for a project

Parameters are separated in the URL with an “&” sign.

Data is sent back in XML format with the HTTP Header: Content-Type: text/xml

In the examples below, the value for each parameter is represented by a variable listed in the table below. The variable describes the value and format expected.

Example URL Replacement Values:

Variable	Description
NNNN	Represents an integer value
SSSS	Represents text/string
DDDD	Represents a date format (YYYY-MM-DD)
TTTT	Represents a time format

Login

Request:

https://analytics.smtresearch.ca/api/?action=login&user_username=SSSS&user_password=SSSS

Parameter	Description
user_username	String value. Username for login.
user_password	String value. Password for the username.

Result:

-Success

```
<result>  
  <login>success</login>  
  <PHPSESSID>cookie would appear here</PHPSESSID>  
</result>
```

The login session is maintained with the provided PHPSESSID cookie. Future requests will require this cookie.

-Failure

```
<result>  
  <error id="1">fail</error>  
</result>
```

Logout

A logout request can only be performed with a valid session. This request clears the cookie and session variables on the server.

Request: <https://analytics.smtresearch.ca/api/?action=logout>

Result:

```
<result>  
  <logout>success</logout>  
</result>
```

listNode

The list node command returns a set of nodes for the selected job.

Request: <https://analytics.smtresearch.ca/api/?action=listNode&jobID=NNNN>

Parameter	Description
jobID	Integer value. Internal database identifier for a job

Result:

```
<result>
  <nodes>
    <node>
      <nodeID>NNNN</nodeID>
      <phyID>NNNN</phyID>
      <name>
        <![CDATA[ SSSS ]]>
      </name>
      <created>2015-10-29 20:02:30</created>
      <modified>2015-10-30 17:04:28</modified>
      <nodeTypeID>-1</nodeTypeID>
    </node>
  </nodes>
</result>
```

Name	Description	
nodeID	Internal database identifier for a node	
phyID	Physical device ID. This number is printed on the WIDAQ.	
name	Descriptive name given to WIDAQ	
nodeTypeID	Node type ID	name
	-1	Unknown
	1	Multiscan/30CH
	2	48CH
	3	WIDAQ
	4	Weather Underground
5	TED MTU	

listSensor

Request: <https://analytics.smtresearch.ca/api/?action=listSensor&nodeID=NNNN>

Parameter	Description
nodeID	Integer value. Internal database identifier for node.

Result:

```
<result>
  <sensors>
    <sensor>
      <sensorID>NNNN</sensorID>
      <input>NNNN</input>
      <name>
        <![CDATA[ SSSS ]]>
      </name>
      <sensorTypeID>NNNN</sensorTypeID>
      <sensorTypeName>SSSS</sensorTypeName>
      <wsID>NNNN</wsID>
      <type>NNNN</type>
      <created>2015-10-29 20:02:30</created>
      <modified>2016-03-29 19:19:22</modified>
      <offset>NNNN</offset>
      <custom1>NNNN</custom1>
      <custom2>NNNN</custom2>
      <custom3>NNNN</custom3>
      <comments>
        <![CDATA[ ]]>
      </comments>
      <tempCompSensorID>NNNN</tempCompSensorID>
    </sensor>
  </sensors>
</result>
```

Name	Description
sensorID	Internal database identifier for a sensor
Input	Input channel on the node
Name	Name of the sensor
sensorTypeID	Internal database identifier for a sensor type
sensorTypeName	Name for sensor type

listSensorData

Request:

https://analytics.smtresearch.ca/api/?action=listSensorData&sensorID=NNNN&startDate=DDDD&endDate=DDDD

Parameter	Description
sensorID	Integer value. Internal database identifier for a sensor.
startDate	Start date for the data set (YYYY-MM-DD)
endDate	End date for the data set (YYYY-MM-DD)

Result:

```
<result>
  <readings>
    <reading>
      <dataID>1679694986</dataID>
      <sensorID/>
      <raw>99883</raw>
      <engUnit>99883</engUnit>
      <timestamp>2016-07-20 11:08:04</timestamp>
    </reading>
    <reading>
      <dataID>1679695008</dataID>
      <sensorID/>
      <raw>99739</raw>
      <engUnit>99739</engUnit>
      <timestamp>2016-07-20 11:08:24</timestamp>
    </reading>
  </readings>
</result>
```

Name	Description
dataID	Internal database identifier for a reading
sensorID	Internal database identifier for a sensor
Raw	Original ohms or uV reading value
engUnit	Reading value after application of engineering unit conversion. Eg: ohms -> moisture content

Timestamp	Timestamp value of reading
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listJob

Request:

<https://analytics.smtresearch.ca/api/?action=listJob&projectID=NNNN>

Parameter	Description
projectID	Integer value. Internal database identifier for a project

Result:

```
<result>
  <jobs>
    <job>
      <gwID>1945</gwID>
      <jobID>4431</jobID>
      <BiGJobID>1</BiGJobID>
      <name>
        <![CDATA[ Lvl 22 ST W Side - TiG1285 ]]>
      </name>
      <lastModified>2023-05-15 21:01:54</lastModified>
      <created>2023-05-15 21:01:54</created>
      <address>
        <![CDATA[ ]]>
      </address>
      <contactPerson>
        <![CDATA[ ]]>
      </contactPerson>
      <contactPhone>
        <![CDATA[ ]]>
      </contactPhone>
      <archived>0</archived>
      <ts>2023-05-15 21:02:07.057201</ts>
      <jobState>2</jobState>
    </job>
  </jobs>
</result>
```

Name	Description	
gwID	Internal database identifier for gateway	
jobID	Internal database identifier for a job	
name	Name of the job is in the brackets of <![CDATA] [name-of-job]]>	
ts	Timestamp	
jobState	Job state ID	name
	1	New
	2	Active
	3	Active (Partial Data)
	4	Idle
	5	Done
	6	Payment Processed
	7	Closed