RTDAS Output Driver Configuration Guide

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1. Overview

Output Driver:

Output driver is a component that sends data to a 3rd party server. The driver understand format accepted by 3rd party server and also method of sending data (FTP, HTTP/JSON etc.).

Output driver concept was initially brought up in order to fulfill EnviroConnect customer requirement of sending data to different State Pollution Control Boards. Since then it has been generalized for all products.

Output drivers are developed to run on server as well as RTDAS.

Output Drivers in RTDAS

Each Output Driver is packaged as a separate component:

Linux- 1. <OutputDriverSpecific>.so file

Windows- 1. <OutputDriverSpecific>.dll file

These .so or .dll files are kept in directory where RTDAS is installed. Driver specific configuration is done in OutputDriverConfiguration.ini file in RTDAS directory. OutputDriverConfiguration.ini is downloaded from server. **Do not manually change this file.** Steps of configuration are given below for each Output Driver.

2. OutputDriverConfiguration.ini File

For using output drivers in RTDAS, a single configuration file is created for each site (RTDAS) with the name OutputDriverConfiguration.ini file. This file has following structure.

[Output Driver Name as Section Name]

Key1=Value1

Key2=Value2

In above format, Key can be Devices and its value can be actual device names. Depending on Output Driver, no of keys and value differs.

Sample OutputDriverConfiguration.ini file is as follows.

[HSPCBRTDAS_134_TC 01]

Devices=TC 01

StationId=01

IndustryId=001

SiteUrl=http://10.6.10.208/hrcpcb-api/api

NOTE- This OutputDriverConfiguration.ini file is kept in RTDAS directory in both Windows RTDAS and Linux DATCon.

From following versions UI is provided for configuration of output drivers on server. Please refer to Admin Tool Help for details.

- EnviroConnect Version 6.4 Patch 10
- SFactory and RAMS Version 5.6.1 Patch 19
- RTDAS version 4.5.0. Patch 2.0

For versions before this, OutputDriverConfiguration.ini file had to be created manually.

Both methods are explained in this document.

3. HSPCB Output driver

NOTE- Before starting actual configuration of this Output Driver, get the Pre-deployment check list from HSPCB.

This pre-deployment checklist has <Url where data is to be posted>, <Token required for uploading data which is unique for each customer>, <Device ID>, <Station ID>, <Industry ID> and <Parameter Name> which required for send data.

3.1. Driver Available for Solution

EnviroConnect

3.2. Description

This driver is used for sending emissions data to Haryana State Pollution Control Board (HSPCB).

3.3. Output Driver Availability

DATCon (Linux) and Windows.

3.4. Prerequisites

1. Make sure HSPCBRTDAS.so / .dll file is present in directory where RTDAS is installed.

3.5. Configuration for old design

For RTDAS version 4.5.0. Patch 1.0 and below.

Section name should be [HSPCBOutputDriver]

1. **Devices** – List of devices configured for sending the output. Multiple devices are comma separated.

2. **SiteUrl** – Generic HSPCB URL for uploading data. For ex - http://164.100.160.248/hrcpcb-api/api

3. **Token** – It is unique token key for a customer to upload data.

4. **UploadFrequency** – It is the frequency with which data should be uploaded to HSPCB server. It's unit is milliseconds.

5. **DeviceID_<DeviceName>** – It has an unique Device ID.

6. **StationId_<DeviceName>** – It has unique StationId required for HSPCB.

7. **IndustryId_<DeviceName>**– It is unique IndustryId required for HSPCB.

8. **VarIDName_<DeviceName>** – Variable ids for which data is to be sent and Parameter name configured for HSPCB. Multiple variable ids are comma separated. (You can get these variable ids from SiteConfig.txt). Format- VarIDName_<DeviceName>=<VariableId>$<Parameter Name required for HSPCB>. Please refer last section of this document to find Variable IDs.

3.5.1 Sample Configuration

Sample OutputDriverConfiguration.ini as per old design:

[HSPCBOutputDriver]

Devices=DEVICE3,DEVICE2

SiteUrl=http://164.100.160.248/hrcpcb-api/api

Token=MDEwMzIwMTlfZm9yYmVzX21hcnNoYWxsXzE2MDYxMg==

UploadFrequency=60000

DeviceID_DEVICE3=D00312

StationId_DEVICE3=312

IndustryId_DEVICE3=113

VarIDName_DEVICE3=1$pH,2$BOD,3$COD,4$TSS

DeviceID_DEVICE2=D00311

StationId_DEVICE2=311

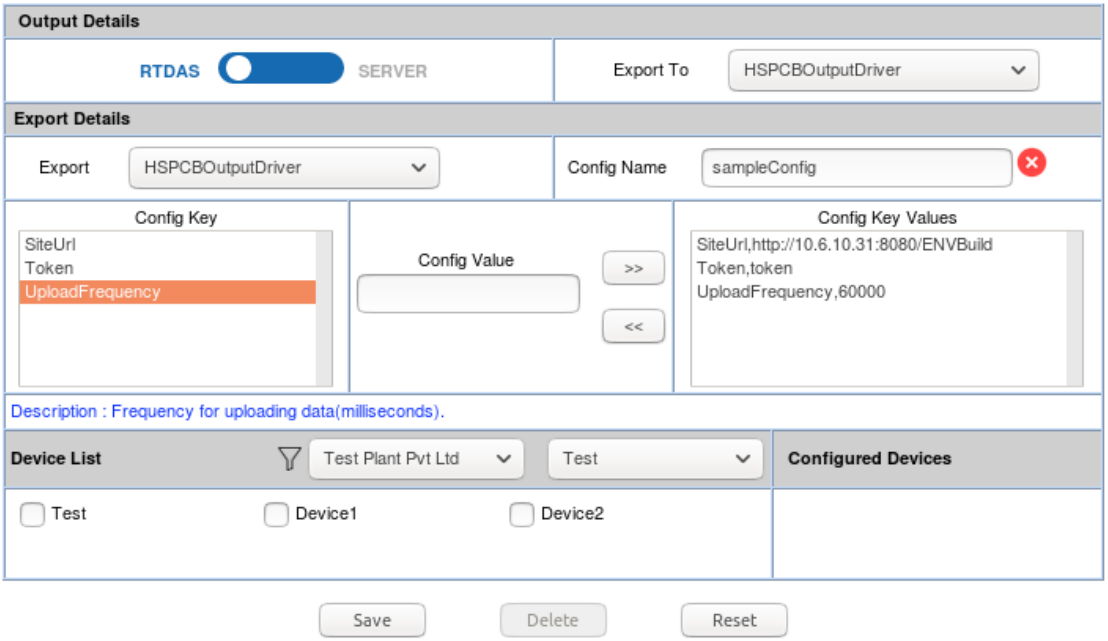
IndustryId_DEVICE2=112

VarIDName_DEVICE2=2$BOD,3$COD,4$TSS

3.6. Configuration for new design

Note- For RTDAS version 4.5.0. Patch 2.0 and above.

Following are the common keys for all devices,



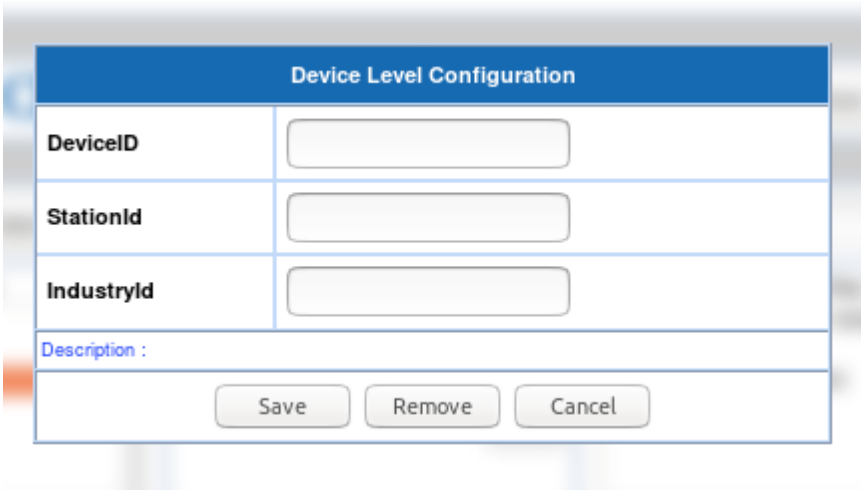
SiteUrl – Generic HSPCB URL for uploading data. For ex - http://164.100.160.248/hrcpcb-api/api

Token – It is unique token key for a customer to upload data.

UploadFrequency – It is the frequency with which data should be uploaded to HSPCB server. It's unit is milliseconds.

Now select devices for which this Output Driver should be configured. A separate section is added for each device in configuration file.

At device level, following keys are required



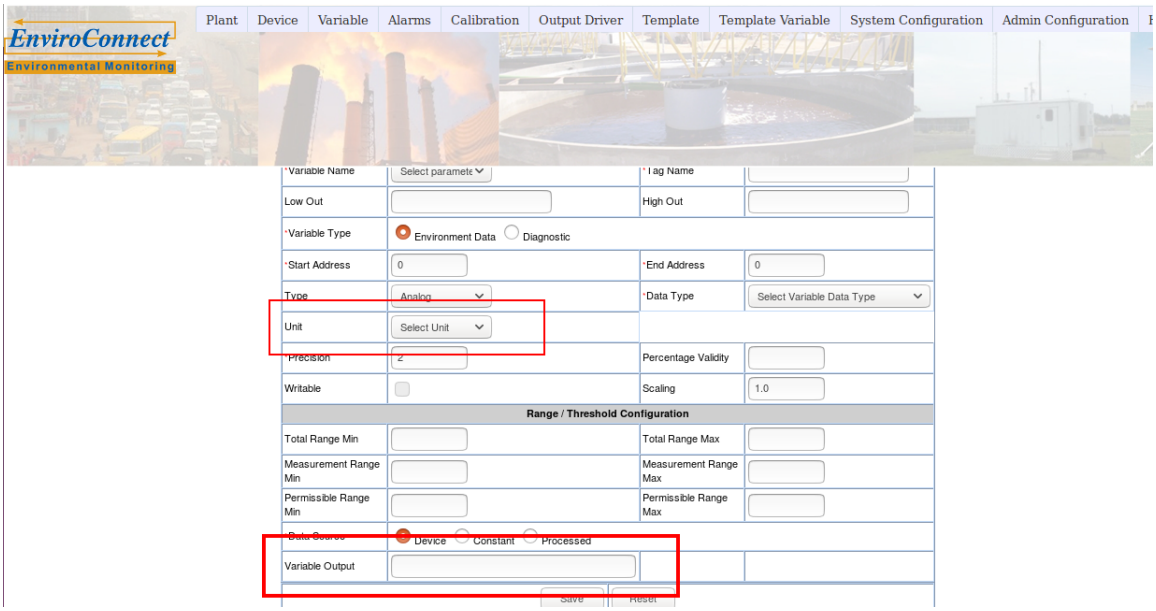
DeviceID – Device ID provided by HSPCB

StationID – Station ID provided by HSPCB

IndustryID – Industry ID provided by HSPCB.

Note: Parameter name required for HSPCB needs to configured while configuring variable on Add Variable page. Write **parameter name** in 'Variable Output' field whose data needs to sent to HSPCB server. Also make sure the variable is **assigned specific unit** while configuring.

Refer following screenshot.



3.6.1 Sample Configuration

Sample OutputDriverConfiguration.ini as per new design:

[HSPCBRTDAS_20_HSPCB]

Devices=DEVICE2

SiteUrl=http://164.100.160.248/hrcpcb-api/api

Token=MDEwMzIwMTlfZm9yYmVzX21hcnNoYWxsXzE2MDYxMg==

UploadFrequency=60000

DeviceID=D00311

StationId=311

IndustryId=112

[HSPCBRTDAS_21_HSPCB]

Devices=DEVICE3

SiteUrl=http://164.100.160.248/hrcpcb-api/api

Token=MDEwMzIwMTlfZm9yYmVzX21hcnNoYWxsXzE2MDYxMg==

UploadFrequency=60000

DeviceID=D00312

StationId=312

IndustryId=113

3.7. Final Checklist

1. HSPCBRTDAS.so or .dll file is present in RTDAS directory.

2. OutputDriverConfiguration.ini file properly configured and kept in RTDAS directory.

3. Variable is given **Variable Output Name and Unit** as per required format for HSPCB.

4. LocalDataExport Output driver

This solution is implemented when we have to send data (through files) to multiple servers. For this we use FTP client through which we upload files to multiple servers. For multiple servers, multiple instances of below **Configuration details block** are pasted in OutputDriverConfiguration.ini file. These block names are to be maintained as unique.

4.1. Driver Available for Solution

EnviroConnect

4.2. Description

This driver is used for sending data to multiple servers.

4.3. Output Driver Availability

DATCon (Linux) and Windows.

4.4. Prerequisites

1. Make sure LocalDataExport.so / .dll file is present in directory where RTDAS is installed.

4.5. Configuration for old design

For RTDAS version 4.5.0.0 and below.

Section name should be [LocalDataExport]

1. Devices - List of devices for which data is to be sent. Multiple devices are comma separated.

2. UploadToFolder - Name of folder from which files are uploaded to ftp server. In case, RTDAS and server are on same machines, there is no need to upload to FTP server, in that case give the path of 'PLSUpload' directory of server). So that server will look for files in this folder.

3. UploadFrequency - Time interval in millisecond after which files are to be uploaded to ftp server. Also data of this interval is written in one single file.

4. FileName_<device name> – Unique identifier which need to include in file name for this device. E.g. FileName_Device1 = BB2.

5. ConnectionUsing – Type of connection. For ex-LAN, INTERNET

6. UseFTP- If you want to upload to FTP server, this flag is enabled (1), else disable it (0).

7. FtpUrl – It has Ftp url.

8. FtpName – It has FTP username.

9. FtpPassword – It has Ftp Password.

10. FtpUploadFilePath- Path on FTP server where files will be uploaded.

11. FtpMode- Ftp mode can be active or passive.

4.5.1 Sample Configuration

Sample OutputDriverConfiguration.ini as per old design:

[LocalDataExport]

Devices=D2,DNew

UploadToFolder=FTPUpload

UploadFrequency=60000

FileName_D2=BB1

FileName_DNew=BB2

ConnectionUsing=LAN

UseFTP=1

FtpUrl=10.6.10.12

FtpName=aipl

FtpPassword=aipl12*

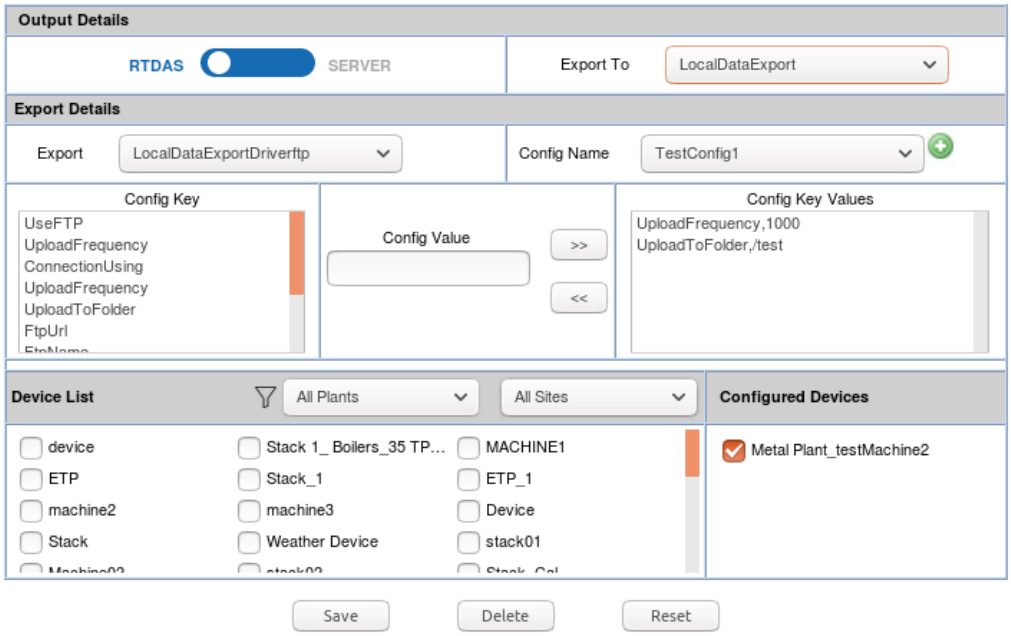
FtpUploadFilePath=/

FtpMode=passive

4.6. Configuration for new design

Note- For RTDAS version 4.5.0. Patch 2.0 and above

Following are the common keys for all devices



UploadToFolder - Name of folder from which files are uploaded to ftp server. In case, RTDAS and server are on same machines, there is no need to upload to FTP server, in that case give the path of 'PLSUpload' directory of server . So that server will look for files in this folder.

UploadFrequency - Time interval in milliseconds after which files are to be uploaded to ftp server. Also data of this interval is written in one single file.

FileName – Unique identifier which need to include in file name. BB2 is added as prefix to file which has data.

ConnectionUsing – Type of connection. For ex-LAN, INTERNET

UseFTP- If you want to upload to FTP server, this flag is enabled (1), else disable it (0).

FtpUrl – Its has Ftp url.

FtpName – It has FTP username.

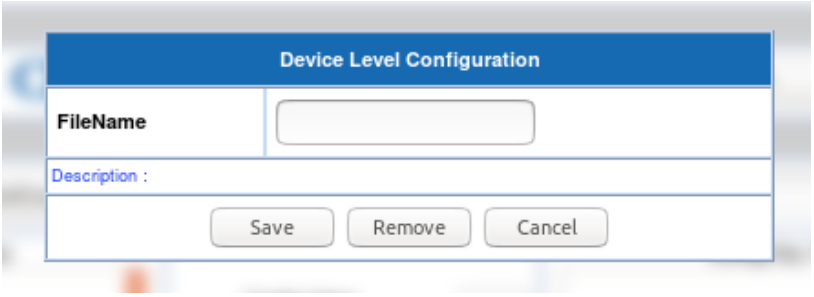
FtpPassword – It has Ftp Password.

FtpUploadFilePath- Path on FTP server where files will be uploaded.

FtpMode- Ftp mode can be active or passive.

Now select devices for which this output Driver should be configured. A separate section is added for each device in configuration file.

At device level, following keys are required



FileName – Unique identifier which need to include in file name. e.g. BB2 is added as prefix to file which has data.

4.6.1 Sample Configuration

Sample OutputDriverConfiguration.ini as per new design:

[LocalDataExport_2_Server1]

Devices=D2

UploadToFolder=FTPUpload

UploadFrequency=60000

FileName=BB1

ConnectionUsing=LAN

UseFTP=1

FtpUrl=10.6.10.12

FtpName=aipl

FtpPassword=aipl12*

FtpUploadFilePath=/

FtpMode=passive

[LocalDataExport_3_Server2]

Devices=DNew

UploadToFolder=FTPUpload2

UploadFrequency=60000

FileName=BB2

ConnectionUsing=LAN

UseFTP=1

FtpUrl=10.6.10.79

FtpName=aipl

FtpPassword=aipl123*

FtpUploadFilePath=/

FtpMode=passive

4.7. Final Checklist

1. LocalDataExport.so or .dll file is present in RTDAS directory.
2. OutputDriverConfiguration.ini file properly configured and kept in RTDAS directory.
3. ‘UseFTP’ key in OutputDriverConfiguration.ini should be 1 if you want to sent data through ftp.

5. MQTT Output driver

NOTE- Before starting actual configuration of this Output Driver, configure the MQTT server-client for sending and receiving data.

5.1. Driver Available for Solution

All solutions

5.2. Description

This driver is used for sending data to MQTT servers/broker.

5.3. Output Driver Availability

DATCon (Linux)

5.4. Prerequisites

1. Make sure MQTTRTDAS.so file is present in directory where RTDAS is installed.

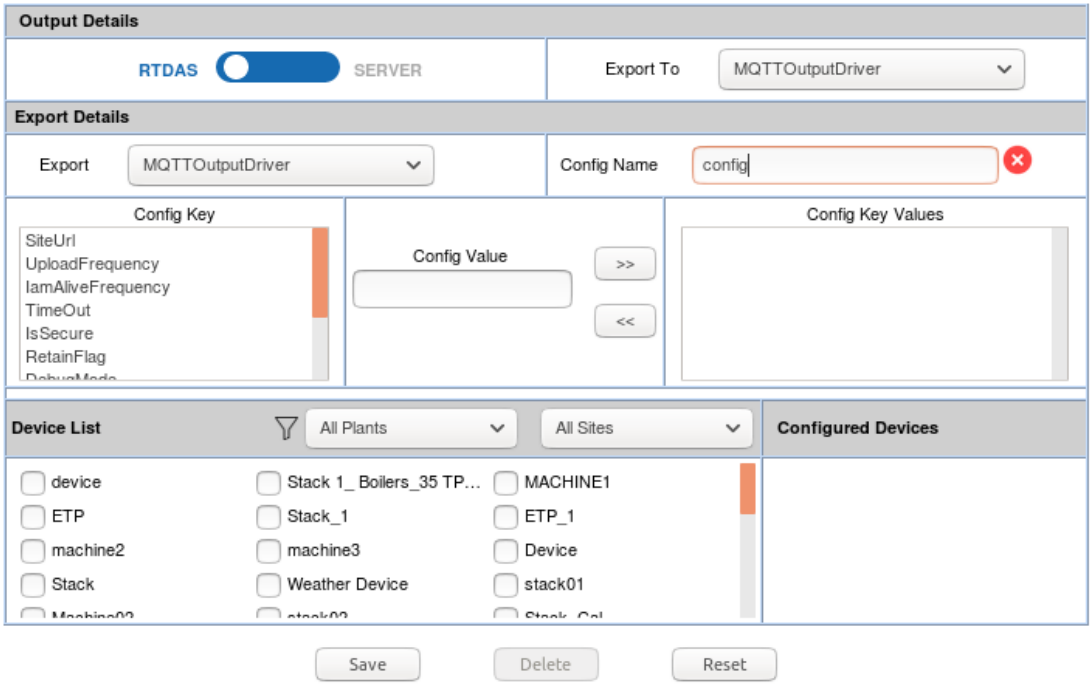
5.5. Configuration for new design

Steps to configure OutputDriverConfiguration.ini as per new design:

Configuration details:

Note- For RTDAS version 4.5.0. Patch 2.0 and above

Following are the common keys for all devices



SiteUrl – MQTT broker URL for uploading data. For ex - tcp://10.6.10.84:1883

UploadFrequency – It is Frequency for posting the data to server (in milliseconds).

IamAliveFrequency – It is for frequency with which the URL is pinged (in seconds).

TimeOut – Time Interval to wait for the response from server (in seconds).

IsSecure – It is 0 for no security, 1 for username and password, 2 for SSL certificate and 3 for username, password and SSL certificate.

RetainFlag- If the RetainFlag is **0**, the server **must not** store previous message. If RetainFlag is **1**, then the server must **store** the application message so that it can be delivered to future subscribers.

ClientID- It is unique client Id as defined in MQTT broker.

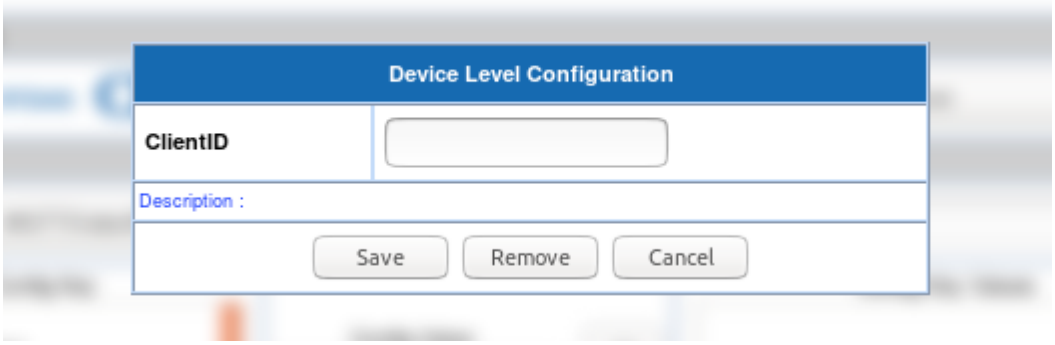
SSLCertPath- Set the ssl certificate path.

UserName - User name required for broker.

Password - Password required for broker.

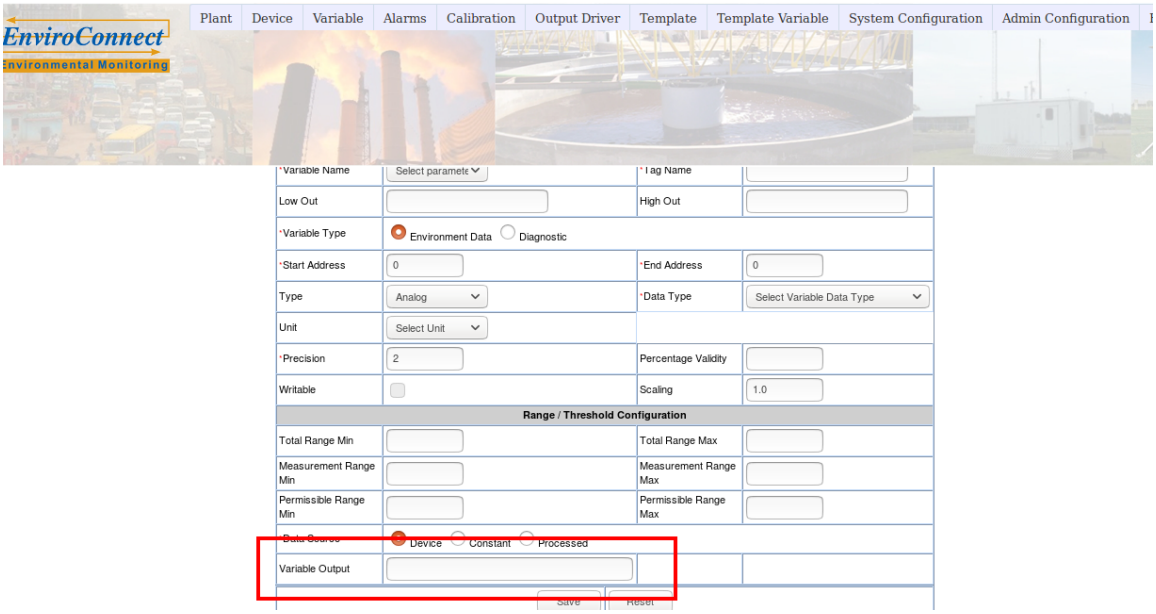
Now select devices for which this output Driver should be configured. A separate section is added for each device in configuration file.

At device level, following keys are required



ClientID- It is unique client Id.

Note- Parameters to be sent to MQTT broker/server, needs to be configured on Add/Modify Variable page. Write **parameter name** in 'Variable Output' field whose data needs to sent to MQTT broker/server.



5.5.1 Sample Configuration

Sample OutputDriverConfiguration.ini as per new design:

[MQTTRTDAS_10_MQTTServer]

Devices=Device1

SiteUrl=tcp://10.6.10.84:1883

UploadFrequency=10000

IamAliveFrequency=10

TimeOut=20

IsSecure=2

RetainFlag=1

ClientID=RAMS_MODBUS_1

SSLCertPath=

UserName=

Password=

[MQTTRTDAS_11_MQTTServer]

Devices=Device2

SiteUrl=tcp://10.6.10.84:1883

UploadFrequency=10000

IamAliveFrequency=10

TimeOut=20

IsSecure=2

RetainFlag=1

ClientID=RAMS_MODBUS_2

SSLCertPath=

UserName=

Password=

5.6. Final Checklist

1. MQTTRTDAS.so file is present in DATCon directory.
2. OutputDriverConfiguration.ini file properly configured and kept in DATCon directory.
3. Variable is given Variable Output Name as per required format.

6. Glens-MPCB Output driver

NOTE- Before starting actual configuration of this Output Driver, get the Pre-deployment check list from Glens-MPCB.

This pre-deployment checklist has <Url where data is to be posted>, <Encryption key required for uploading data which is unique for each customer>, <Site ID>, <Monitoring ID>, <Analyser ID>, <Parameter ID>, <Unit ID> and <Parameter Name> which required for sending data. Among above keys, <Monitoring ID>, <Analyser ID>, <Parameter ID>, <Unit ID> and <Parameter Name> are needed for each parameter.

6.1. Driver Available for Solution

EnviroConnect

6.2. Description

This driver is used for sending emission data to MPCB-Glens servers.

6.3. Output Driver Availability

DATCon (Linux)

6.4. Prerequisites

1. Make sure MPCBGlensRTDAS.so file is present in directory where RTDAS is installed.

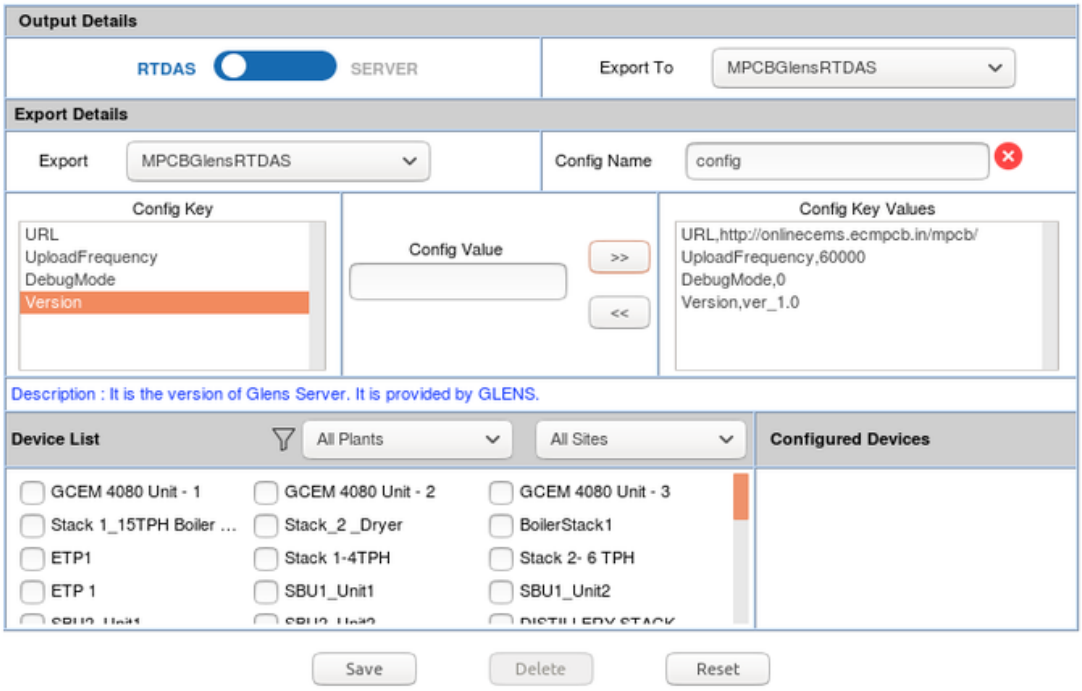
6.5. Configuration for new design

Steps to configure OutputDriverConfiguration.ini as per new design:

Configuration details:

Note- For RTDAS version 4.5.0. Patch 3.0 and above

Following are the common keys for all devices



URL – Generic MPCB URL for uploading data. For ex - http://onlinecems.ecmpcb.in/mpcb/

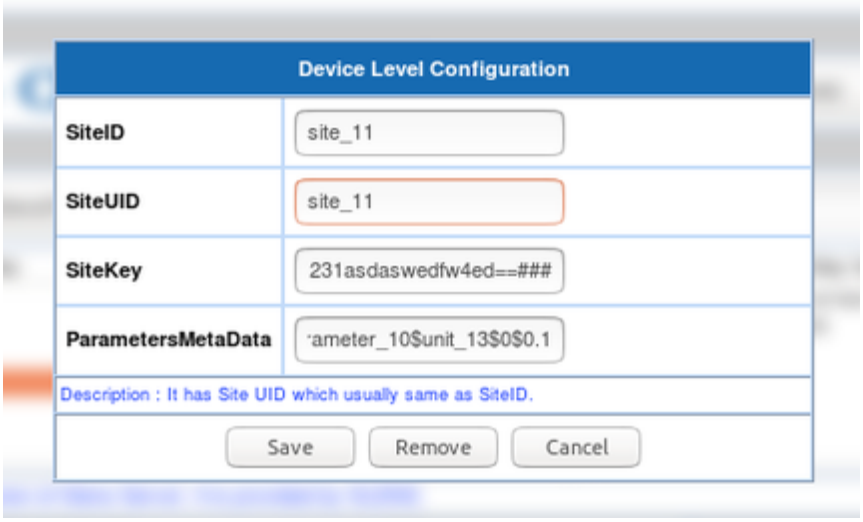
UploadFrequency – It is the frequency with which data should be uploaded to MPCB server. It's unit is Minute.

DebugMode – Debug mode=0 for disabling debug mode. Debug mode=1 for displaying debug logs on console . Debug mode=2 for displaying debug logs on console as well as writing them to its respective log files.

Version – It is the version of Glens Server. It is provided by GLENS. Generally, use version=ver_1.0

Now select devices for which this output Driver should be configured. A separate section is added for each device in configuration file.

At device level, following keys are required



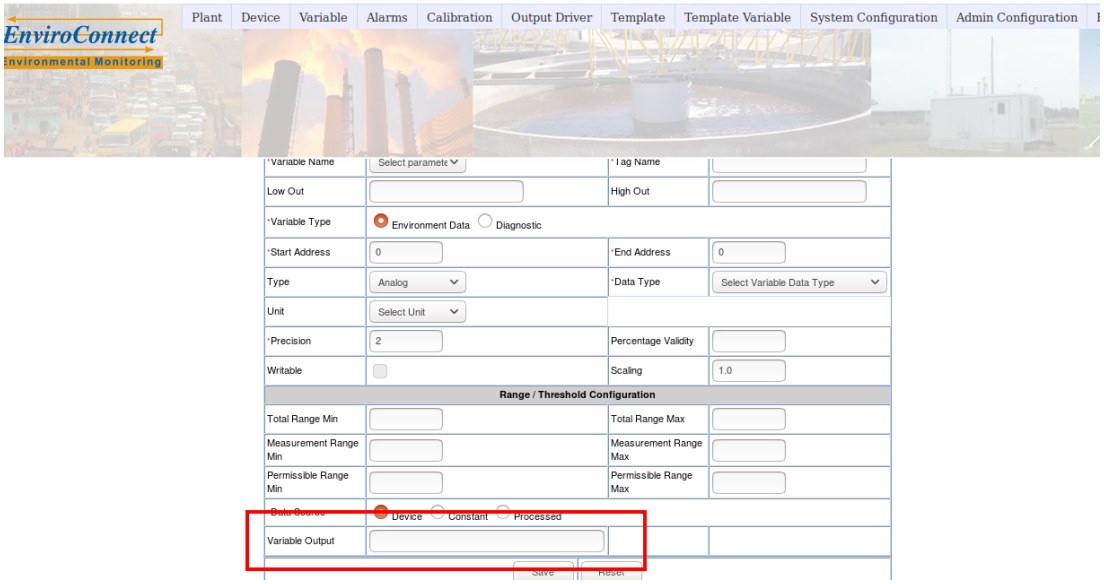
SiteID – It has an unique Site ID.

SiteUID – It has Site UID which usually same as SiteID.

SiteKey – It is an key which is required for encryption and decryption of data.

ParametersMetaData – This field denotes names of parameters to be monitored. Names of parameters are comma separated. <Variable 1 Variable Output Name as configured on add/modify variable page>$<Monitoring Id 1>$<analyser ID 1>$<Parameter ID 1>$<Unit id 1>$0<Scaling 1>,<Variable 2 Variable Output Name as configured on add/modify variable page>$<Monitoring Id 2>$<analyser ID 2>$<Parameter ID 2>$<Unit id 2>$0<Scaling 2>.

Note- Configure Variable Output Name with Parameter Name as required for MPCB.



6.5.1 Sample Configuration

Sample OutputDriverConfiguration.ini as per new design

[MPCBGlensRTDAS_20_Glens1]

Devices=Sugar ETP

URL=http://onlinecems.ecmpcb.in/mpcb/

SiteID=site_498

SiteUID=site_498

SiteKey=c2l0ZV80OTgsdmVyXzEuMCxkZWZhdWx0LDIwMTYtMTAtMDItMTk6MDk6NDk

Version=ver_1.0

UploadFrequency=60000

DebugMode=2

ParametersMetaData=PM$GSSP$analyzer_287$parameter_10$unit_13$0$0.1

[MPCBGlensRTDAS_21_Glens2]

Devices=Sugar ETP 2

URL=http://onlinecems.ecmpcb.in/mpcb/

SiteID=site_499

SiteUID=site_499

SiteKey=c2l0ZV80OTgsdmVyXzEuMCxkZWZhdWx0LDIwMTYtMTAtMDItMTk6MDk6NDk

Version=ver_1.0

UploadFrequency=60000

DebugMode=2

ParametersMetaData=HFSSPanalyzer_287$parameter_239$unit_13$1$0.1

6.6 Final Checklist

1. MPCBGlensRTDAS.so file is present in DATCon directory.
2. OutputDriverConfiguration.ini file properly configured and kept in DATCon directory.
3. Variable is given Variable Output Name as per required format for MPCB.

7. EnviroConnectAPI Output driver

NOTE- Before actually configuring this Output Driver, get the Pre-deployment check list from TSPCB

This pre-deployment checklist has <Url where data is to be send>, <DeviceID configured with TSPCB> and <Parameter Name configured with TSPCB> which required for sending data.

7.1. Driver Available for Solution

EnviroConnect

7.2. Description

This driver is used for sending emission data to TSPCB server. It can also be used to send data to another EnviroConnect server that acts as secondary server for given device

7.3. Output Driver Availability

RTDAS (Windows)

7.4. Prerequisites

1. Make sure EnviroConnectAPIOutputDriver.dll file is present in RTDAS Folder

Note: For TSPCB we are sending data from Primary Server (CPCB) to Secondary server (TSPCB)

7.5. Configuration for old design

For RTDAS version 4.5.0. Patch 1.0 and below.

Section name should be [EnviroConnectAPIOutputDriver]

1. **TSPCBDeviceIDs-** Device ID of Secondary Server (Where data has to be sent). Multiple ID's are Comma separated.

2. **ServerURL-** URL of Secondary Server. For ex- TSPCB server url

3. **Name_<Device ID (Secondary)>_<Device Name (Primary)** >- Site user name as on Secondary Server. E.g. Name_12_Station2=FIRST, where 12 is device ID on secondary server and Station2 is device name on primary server

4. **Password_<Device ID (Secondary)>_<Device Name (Primary)**> - Site password as on Secondary

5. **PollingFreq_<Device ID (Secondary)>_<Device Name (Primary)** >- As on Secondary Server

6. **HeaderList_<Device ID (Secondary)>_<Device Name (Primary)**> - Variable names as on Secondary Server. Multiple variable names are comma separated.

7. **Devices** - Device name as on Primary Server. Multiple devices are comma separated.

8. **VarList_<Device Name (Primary)**> - Variable Id's as on Primary Server. Multiple Id's are comma separated.

9. **TSPCBDeviceID_<Device Name (Primary)**>- Device ID of Secondary Server

7.5.1 Sample Configuration

Sample OutputDriverConfiguration.ini as per old design:

[EnviroConnectAPIOutputDriver]

TSPCBDeviceIDs=12,13

ServerURL=http://183.82.41.227:8080/enviroconnect

Name_12_Station2=FIRST

Password_12_Station2= FIRST

PollingFreq_12_Station2=30

HeaderList_12_Station2=CO,SPM,Sox,NOx

Name_13_Boiler 1=FIRST

Password_13_Boiler 1=FIRST

PollingFreq_13_Boiler 1=30

HeaderList_13_Boiler 1=CO,NOx,SPM,Sox

Devices=Station2,Boiler 1

VarList_Station2=2,1,4,3

TSPCBDeviceID_Station2=12

VarList_Boiler 1=2,3,1,4

TSPCBDeviceID_Boiler 1=13

Note: Device Name & Variable Id's of primary server can be found on primary server & Device ID & Variable names can be found on secondary server

Note- For verifying data transmission from primary to secondary, go to DAS logs and check in EnviroAPIDebugger<date time>.txt (for this enable debug mode of DAS), API data request is as given below:

21-01-2016 14:00:11, Current Data - String is -

{"FunctionName":53,"Name":"FIRST","Password":"FIRST","DeviceID":1,"additionalInfo":{"SoftwareNameVersion":"EnviroConnectDAS2.5.0.7"},"Datetime":"2016-01-21 14:00:11","Variables":
[{"Variablename":"Nox","Value":"1.000","Flags":"","Unit":"mg/nm3"},
{"Variablename":"Sox","Value":"20.00","Flags":"","Unit":"mg/nm3"},
{"Variablename":"SPM","Value":"1.00","Flags":"","Unit":"mg/nm3"}]}

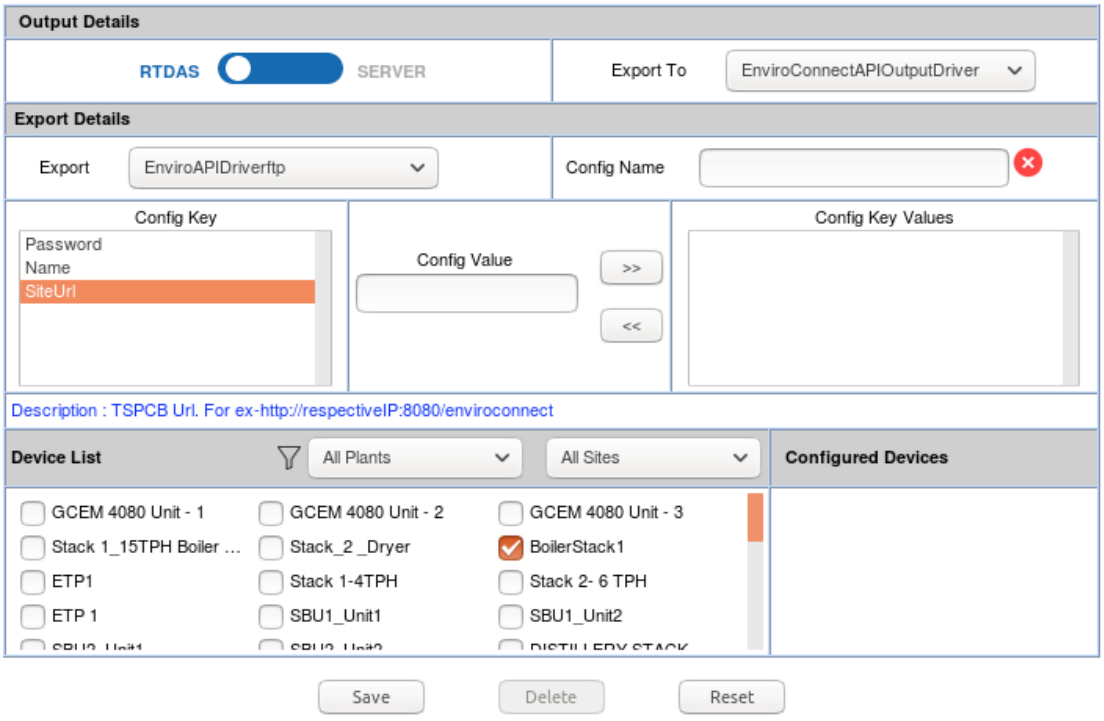
7.6. Configuration for new design

Steps to configure OutputDriverConfiguration.ini as per new design:

Configuration details:

Note- For RTDAS version 4.5.0. Patch 3.0 and above

Following are the common keys for all devices



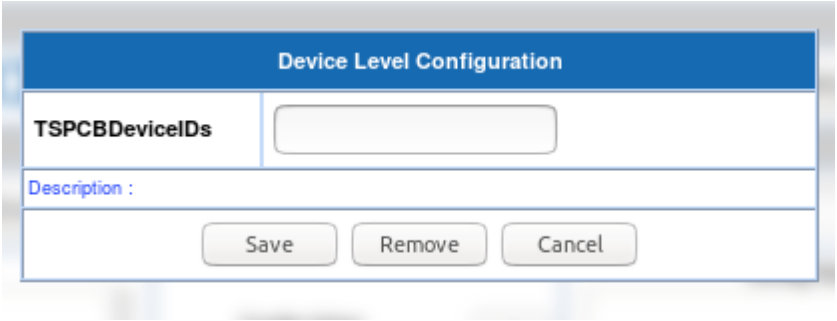
SiteUrl – Generic TSPCB URL for uploading data.

Name – It has Site User Name which is configured on TSPCB server.

Password – It has Site Password which is configured on TSPCB server.

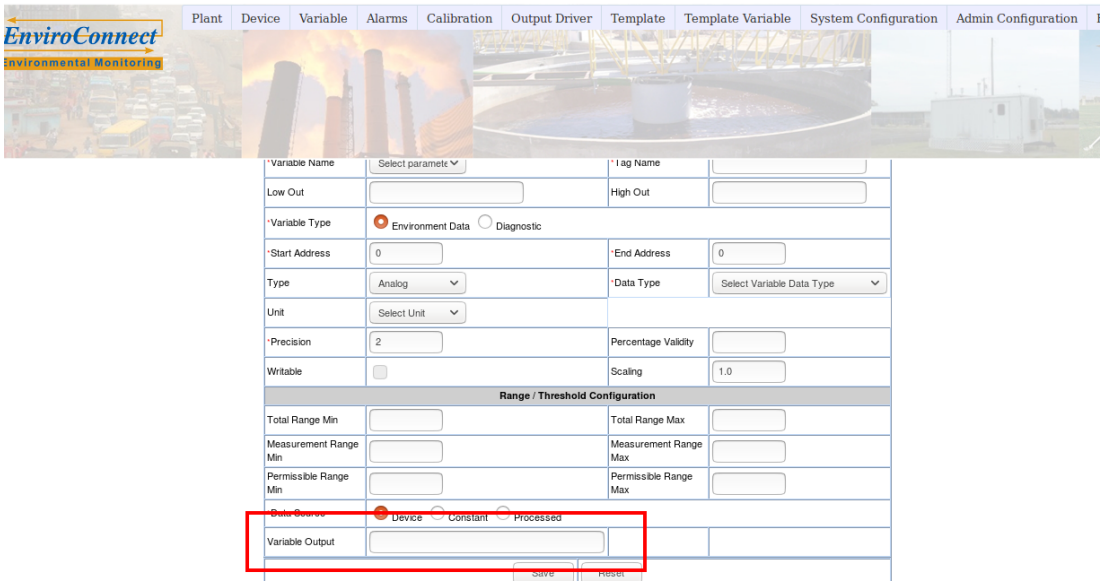
Now select devices for which this output Driver should be configured. A separate section is added for each device in configuration file.

At device level, following keys are required



TSPCBDeviceIDs – It has an unique Device ID of device on TSPCB server.

Note- Parameters to be sent to TSPCB server, needs to be configured on Add/Modify Variable page. Write **parameter name (exactly same as configured on TSPCB server) in 'Variable Output' field (on primary server for** ex-CPCB) whose data needs to sent to TSPCB server. Refer below screenshot.



7.6.1 Sample Configuration

Sample OutputDriverConfiguration.ini as per new design

[EnviroConnectAPIOutputDriver_12_Enviro]

TSPCBDeviceIDs=64

SiteUrl=**http://10.6.10.12:8080/enviroconnect**

Name=Gooo

Password=Gooo

Devices=Gas Analyser

[EnviroConnectAPIOutputDriver_65_Enviro1]

TSPCBDeviceIDs=65

SiteUrl=**http://10.6.10.12:8080/enviroconnect**

Name=Gooo

Password=Gooo

Devices=Device Spm

7.7. Final Checklist

1. EnviroConnectAPIOutputDriver.dll file is present in RTDAS directory.
2. OutputDriverConfiguration.ini file properly configured and kept in RTDAS directory.
3. Variable is given Variable Output Name as per required format for TSPCB (secondary) server.

8. Glens-RSPCB Output driver

NOTE- Before starting actual configuration of this Output Driver, get the Pre-deployment check list from Glens-RSPCB.

This pre-deployment checklist has <Url where data is to be posted>, <Site ID>, <Monitoring ID>, <Analyser ID>, <Parameter ID>, <Unit ID> and <Parameter Name> which required for sending data. Among above keys, <Monitoring ID>, <Analyser ID>, <Parameter ID>, <Unit ID> and <Parameter Name> are needed for each parameter.

8.1. Driver Available for Solution

EnviroConnect

8.2. Description

This driver is used for sending emission data to RSPCB-Glens servers.

8.3. Output Driver Availability

DATCon (Linux)

8.4. Prerequisites

1. **Make sure RSPCBRTDAS.so file is present in DATCon Folder**

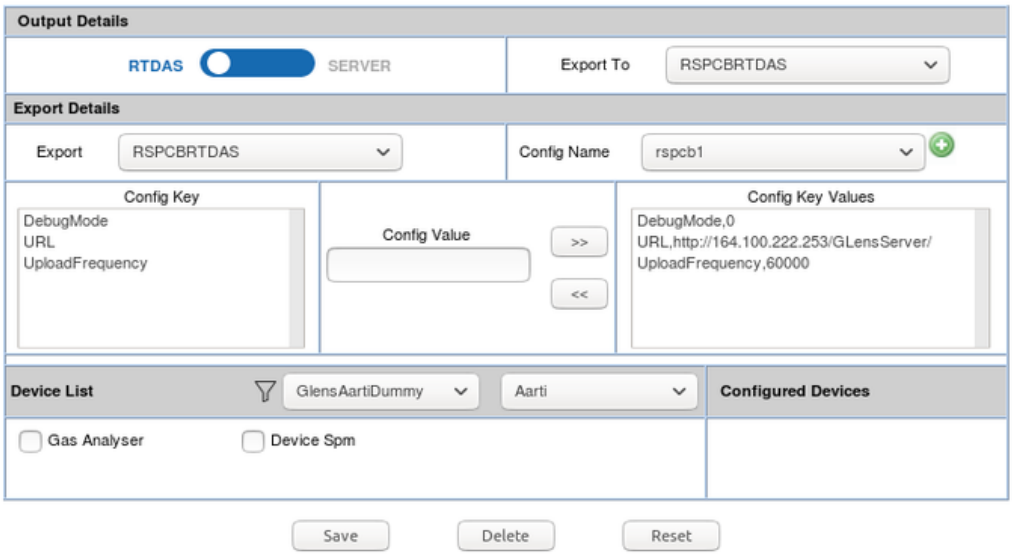
8.5. Configuration for new design

Steps to configure OutputDriverConfiguration.ini as per new design:

Configuration details:

Note- For RTDAS version 4.5.0. Patch 3.0

Following are the common keys for all devices



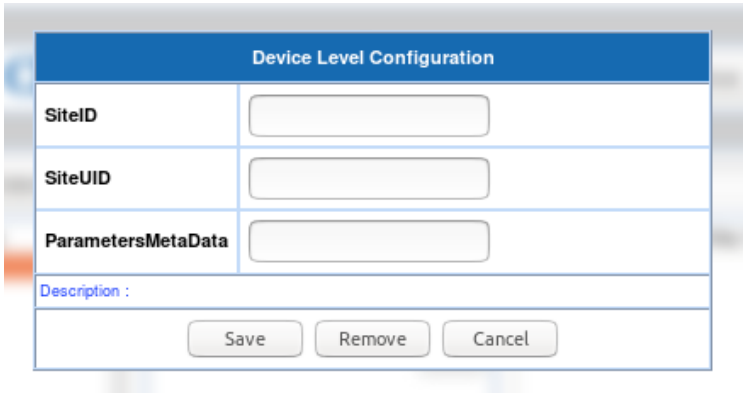
DebugMode – Debug mode=0 for disabling debug mode. Debug mode=1 for displaying debug logs on console . Debug mode=2 for displaying debug logs on console as well as writing them to its respective log files.

URL – Generic RSPCB URL for uploading data. For ex - http://164.100.222.253/GLensServer/

UploadFrequency – It is the frequency with which data should be uploaded to MPCB server. It's unit is Minute.

Now select devices for which this output Driver should be configured. A separate section is added for each device in configuration file.

At device level, following keys are required

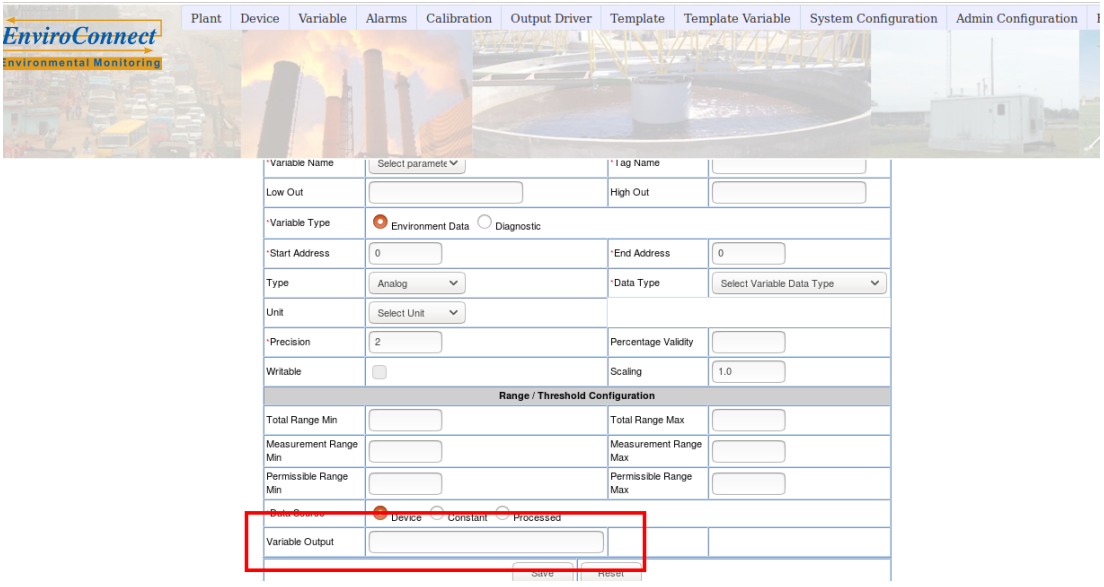


SiteID – It has an unique Site ID.

SiteUID – It has Site UID which usually same as SiteID.

ParametersMetaData –This field denotes names of parameters to be monitored. Names of parameters are comma separated. <Variable 1 Variable Output Name as configured on add/modify variable page>$<Monitoring Id 1>$<analyser ID 1>$<Parameter ID 1>$<Unit id 1>$0<Scaling 1>,<Variable 2 Variable Output Name as configured on add/modify variable page>$<Monitoring Id 2>$<analyser ID 2>$<Parameter ID 2>$<Unit id 2>$0<Scaling 2>.

Note- Configure Variable Output Name with Parameter Name as required for RSPCB.



8.5.1 Sample Configuration

Sample OutputDriverConfiguration.ini as per new design

[RSPCBRTDAS_59_rspcb1]

Devices=Device1

URL=http://164.100.222.253/GLensServer/

UploadFrequency=60000

DebugMode=0

SiteID=site_378

SiteUID=site_378

ParametersMetaData=NOx$Stack_1$analyzer_102$parameter_12$unit_13$0$1,SO2$Sta

ck_1$analyzer_102$parameter_11$unit_13$0$1

[RSPCBRTDAS_60_rspcb1]

Devices=Device2

URL=http://164.100.222.253/GLensServer/

UploadFrequency=60000

DebugMode=0

SiteID=site_378

SiteUID=site_378

ParametersMetaData=PM$Stack_1$analyzer_214$parameter_3$unit_13$1$1

8.6 Final Checklist

1. RSPCBRTDAS.so file is present in DATCon directory.
2. OutputDriverConfiguration.ini file properly configured and kept in DATCon directory.
3. Variable is given Variable Output Name as per required format for RSPCB.

9. Procedure to find Variable ids from SiteConfig.txt

Read notes to find Variable id from below sample SiteConfig.txt

Sample SiteConfig.txt:

[SiteConfig]

SiteInfo=DisconnectDelay;2;0$UploadFrequency;2;0$ConnectOnAlarm;4;0$LocalStorage;4;0$EncryptionFlag;4;0$AlarmFlag;4;0$ReqDiskFreeSpace;2;0$CleanupFreqInDays;2;0$<~>10000;300000;0;0;0;0;1;20<~>

DevInfo=ID;4;0$Name;1;50$PDList;1;40$DeviceType;1;40$<~>**7;DEVICE3**;7;EFFLUENT;$<~>

(**Note**-In above line, bold **number;word** means Deviceid and DeviceName configured on CPCB server. For example DEVICE3 has Id-7. **See Variable Info Section for Device with id-7 to find out variable ids of each variable**)

Variable Info Section for Device with id-7[

Variable7=ID;4;0$Name;1;255$Type;1;1$LoLimit;3;0$LoLowLimit;3;0$HiLimit;3;0$HiHighLimit;3;0$StartAddress;2;0$EndAddress;2;0$GenerateAlarmFlag;4;0$DeviceId;4;0$Precision;4;0$Unit;1;255$Scaling;3;0$DataSourceId;3;0$<~>**1;pH**,1;a;0.0;0.0;0.0;0.0;0;30;0;7;2;pH;1.0;0;$**2;BOD**,1;a;0.0;0.0;0.0;0.0;1;30;0;7;2;mg//l;1.0;0;$**3;COD**,1;a;0.0;0.0;0.0;0.0;2;30;0;7;2;mg//l;1.0;0;$**4;TSS**,1;a;0.0;0.0;0.0;0.0;3;30;0;7;2;mg//l;1.0;0;$<~>

(**Note**-In above line, bold **number;word** means VariableId and tag name of variable. **So you need to use this variable ids in OutputDriverConfiguration.ini file for Variable mapping**)

Configuration7=ParamName;1;30$ParamValue;1;30$<~>TimeOut;2000$PortNumber;503$HostAddress;10.6.10.12$SlaveID;1$Protocol;ModbusTCPMaster$PollingFreq;5000$ReconnectFreq;300000$Active;1$Polling;0$<~>

]