

RDAQ – Remote Data Acquisition



V1.4 – October 30th, 2021

RDAQ is series of operations centered around the CIQRDAQ.asmx web service. This is a SOAP web service designed to retrieve data from remote Control IQ sites.

Web Service

The web services can be found at: <https://rdaq.controliq.com/ciqrdaq/ciqrdaq.asmx>

The specific Service to use is: **RequestData**

Provide the Web Service with the following variables through a structure.

- Property ID - This is unique to each property
- RequestType - This is constant for the method to return the data (see below)
- Request - A set of instruction that will retrieve data from the site

Response from the Web Service

- MsgID - This is a reference used for debugging
- dbTime - The date and time of the remote database
- Response - The response based on the RequestType and Request

Requests and responses are processed by the RDAQ (Remote_Data) driver in CIQProc (requires v5.0.1.1 or higher.)

Property ID

This is the property ID of the remote site. This is provided by SAI.

RequestType

The data will be returned in the format that is provided on the web service request. Options are:

- XML - XML format
- CSV - Comma Separated Rows of data
- JSON - Data in JSON format (column names included)
- JSONLite - Data in JSON format (columns names omitted)

Note: There is a maximum number of rows that will be returned in any table. This is determined by a Preferences tables Key called MaxMobileRows. The default value for this is 500 and is only editable by SAI.

Request

CIQAPI,request, variable_1,variable_2,variable_n

Where:

CIQAPI is a constant. This must be the first entry on each request.

request is one of the following:

- | | |
|---------------|---------------------------------------|
| Login | - Login into the remote Proc |
| Query | - Returns specific data for the API |
| Groups | - Get a list of Groups |
| Points | - Gives a list of points (in a group) |

Most API requests will be confined to Login and Query

Entries are separated by commas (,)

No part of the RDAQ request is case sensitive.

If text is **blue**, these are constants and must be provided

If text is in *italics* you must supply a variable in place of the text

If text is surround by bracket [*variable*] it is optional

If more than one entry per command is optional, you must put it in the correct position.

For example, if you want to allow option 2, but not option 1 you would have entry like

CIQAPI,REQUEST,useruid,,option_2

If you don't want either option 1 or 2 you can leave out the commas

CIQAPI,REQUEST,useruid

NOTES:

- ALL requests will return a 'Header' table with the database time (dbTime) and the icon name to display for alarms (AlarmFile) dbTime is the date time at the property.
- ALL requests except for the 'LOGIN' request must include the encrypted UserID that is returned by the 'LOGIN' command. The userID expires each day at midnight. It only needs to be run once—per-day.

CIQAPI,LOGIN,name,password

Name and password are defined in the ControllQ database. This will return the 'Header' table (described above) as well as a 'Login' table that will have a single entry. If the name / password is valid, a encrypted 'token' will be returned that is the UserID information. This token must be included on all other requests.

If the name / password is not valid you will get back a message in the UserID field
"ERROR - Invalid Login or Password".

Tables Returned: Header, Login

CIQAPI,Query,userid,query,[LastModifiedDate]

UserID comes from the Login request and is required.

Query is provided by SAI as a verb to lookup the data query. It is required.

LastModifiedDate is an optional field to test if the data has changed. If ANY of the data has changed, then only the changed rows will be returned.

This will return the 'Header' table (described above) as well as a table called the same as the Query that will have a rows based on the returned data. If no data is found no table is returned.

Typical use:

CIQAPI,Query,userid,MyRequest

Result returns 'Header' with dbtime (2021-02-01 16:23:59)

Result returns table *Query* with the rows of data.

Store dbTime locally

CIQAPI,GROUPS,userid, MyRequest,dbtime

This is used for all subsequent calls. The result will only contain the changed data since the previous call.

Maximum Rows may not apply with this call.

Tables Returned: Header, [Query]

CIQAPI,GROUPS,userid,[LastModifiedDate],[Filter]

UserID comes from the Login request and is required.

LastModifiedDate is an optional field to test if the data has changed. If ANY of the data has changed, the full result set will be returned.

If a Filter is provided, only the Group Names that contain the filter will be returned.

This will return the 'Header' table (described above) as well as a 'Groups' table that will have a row for each group returned. The rows will contain the 'GroupUID' and 'Group Name' field. The GroupUID is used to call the POINTS request. If no data is found no table is returned.

Typical use:

CIQAPI,GROUPS,userid

Result returns 'Header' with dbtime (2021-02-01 16:23:59)

Result returns 'Groups' with GroupUID and Group Names

Store dbTime

CIQAPI,GROUPS,userid,myGroupTime

This is used for all subsequent calls. If a group has change you will get a full new list. If not, you will not get a 'Groups' table

Note: If the number of rows exceed the MaxMobileRows setting, only the MaxMobileRows will be returned. The header will contain the number of rows with an "*" appended to it to indicate the maximum rows has been hit. Example 500 *.

Tables Returned: Header, Groups
See Also **CIQAPI,POINTS**

CIQAPI,POINTS,userid,GroupUID,[LastModDate],[Filter]

UserID comes from the Login request and is required.

GroupUID comes from the Groups request and is required.

LastModDate is an optional field to test if the data has changed. If ANY of the data has changed, then only the changed rows will be returned.

If a Filter is provided, only the Points that contain the filter will be returned.

Typical use:

CIQAPI,POINTS,userid,groupuid

Result returns 'Header' with dbtime (2014-02-01 16:23:59)

Result returns 'Points' a series of fields in multiple rows.

Store dbTime locally

CIQAPI,POINTS,userid,groupuid, dbTime

This is used for all subsequent calls. Only changed data will be returned.

If no data has changed, you will not get a 'Points' table

Note: If the number of rows exceed the MaxMobileRows setting, only the MaxMobileRows will be returned. The header will contain the number of rows with an "*" appended to it to indicate the maximum rows has been hit. Example 500 *.

Tables Returned: Header, Points, PointName

See Also: **CIQAPI,GROUPS**