

Mongo Db connector specifics

Organisation of the collections

MongoDb is a database composed of collections, each containing documents. Each document is in JSON format.

Niagara dedicates a collection to each data type and container (Devices) and a collection for the application of commands (Messages).



The "Devices" collection can represent a device, a Folder...

Organisation of documents

Document type Device

id: unique identifier
tags: JSON object containing a list of keys/values

Points document

id: unique identifier
tags: JSON object containing a list of keys/values
deviceId: identifier of the associated device
status: state of the point at time t
value: value of the point at time t
timestamp: last modification of the status or value

Alarms template document

id: unique identifier
uuid: unique identifier of the alarm in Linkspers
deviceId: identifier of the associated device
alarmClass: name of the alarm group
alarmTransition: alarm status

References document type

id: unique identifier
uuid: unique identifier of the alarm in Linkspers
deviceId: identifier of the associated device
alarmClass: name of the alarm group
alarmTransition: alarm status

Message type document

```
{
  "deviceId": "< DeviceId>"
  "pointId": "< PointId>",
  "type": "POINT_ACTION",
  "payload": {
    "action": "< PointAction>", // SET, AUTO, OVERRIDE ....
    "value": <Value>,
    "duration": <duration in seconds>.
  }
}
```

Example of documents

Example of a device representing a room

```
{
  "_id": "0Uuo6AVc1070WvOKaEbpm",
  "tags": {
    "Object": {
      "syncSource": "Local",
      "occupancyNumberPeak": "0,00",
      "occupancyNumber": "0,00",
      "displayName": "0022 Sirius",
      "type": "btibStructure:Node",
      "ordInSession": "station:|h:3a6715",
      "ifcSpace": "H",
      "deviceId": "0Uuo6AVc1070WvOKaEbpm",
      "space": "0022 Sirius",
      "building": "Vayandata",
      "occupancyType": "",
      "netPlannedArea": "0,00",
      "zone": "Salles de r union",
      "station": "officeBtib",
      "definition": "space",
      "id": "h:3a6715",
      "floor": "00",
      "subLevel": "1",
      "isExternal": "false",
      "level": "4",
      "spaceUse": "0",
      "node": "H",
      "site": "Vayandata - DEV",
      "occupancyTimePerDay": "0,00",
      "name": "M8SAVQTVnQZr8Zr568e"
    }
  }
}
```

Example of a CO2 measuring point

```
{
  "_id": "ABSAV83uc1xx8WcRFR9",
  "deviceId": "3MyHC1r5J8ueRv97H5dals",
  "tags": {
    "Object": {
      "cur": "H",
      "notes": "",
      "color": "defaultResource",
      "displayName": "CO2Level",
      "tz": "Paris",
      "co2": "H",
      "delta": "false",
      "description": "",
      "curStatus": "ok",
      "type": "control:NumericWritable",
      "ordInSession": "station:|h:39f86e",
      "deviceId": "3MyHC1r5J8ueRv97H5dals",
      "space": "017 Salle Principale",
      "building": "Vayandata",
      "point": "H",
      "writable": "H",
      "curErr": "",
      "maxVal": "-inf",
      "curVal": "600,00",
      "minVal": "0,00",
      "writeStatus": "ok",
      "pointId": "ABSAV83uc1xx8WcRFR9",
      "zone": "Bureaux",
      "station": "officeBtib",
      "mnemonic": "",
      "id": "ABSAV83uc1xx8WcRFR9",
      "floor": "01",
      "yAggregation": "Average",
      "graphType": "Line",
      "equipmentControlCategory": "CO2_RATE",
      "kind": "Number",
      "writeLevel": "13",
      "controlPointType": "SENSOR",
      "site": "Vayandata - DEV",
      "unit": "ppm",
      "writeVal": "600,00",
      "writeErr": "",
      "name": "CO2Level",
      "pointId": "ABSAV83uc1xx8WcRFR9",
      "status": "[OK] @ def",
      "timestamp": "2020-09-17T18:02:21.649+02:00",
      "value": 600
    }
  }
}
```

Example of an alarm

```
{
  "_id": "ObjectID(\"5ef3172f916a36005474c7fe\")",
  "uuid": "53684f7b-fdd4-49db-99e1-841d09380ead1",
  "ackBy": "null",
  "ackDate": "1970-01-01T01:00:00.000+01:00",
  "ackRequired": true,
  "ackState": "Unacked",
  "alarmClass": "Default Alarm Class",
  "alarmTransition": "Offnormal",
  "alarmValue": "False",
  "lastUpdate": "2020-06-24T11:17:53.671+02:00",
  "msgText": "",
  "normalTime": "24-Jun-20 11:17 AM CEST",
  "presentValue": "Closed",
  "priority": 255,
  "source": "local:|station:|slot:/Services/BtibService/aspectContainer/structureMa...",
  "sourceName": "OpenCloseContact",
  "sourceState": "Normal",
  "timestamp": "2020-06-24T11:04:47.244+02:00",
  "controlPointType": "SENSOR",
  "equipmentControlCategory": "OPENING"
}
```