

OFS Alert Store API

The OFSX Alert Store API allows programmatic inspection of alerts and forms that have been raised on an OFS server. This document provides an overview of querying the OFS Alert Store API

Access to the API can be granted on request by your local OFS administrator, or by contacting support@ofsystems.com.

API Requests

The OFS API is accessed using HTTP GET / POST via TCP using TLS on port 443. Results are UTF-8 JSON objects unless otherwise specified.

Encoding Credentials

OFS server access requires standard HTTP Basic Authentication. Users will only be able to access the OFS Alert Store API if they have `alertread` permission.

OFS Alert Store API URL

The OFS Alert Store API is accessible at:

```
https://{yourofssserver}/alertstore/query?limit=1
```

URL query parameters

Query parameters must be properly URL Encoded:

Parameter	Description
Filter	<p>a JSON filter definition for the query (described below). All timestamps are UTC unix millisecond timestamps. Each part of the filter is optional.</p> <pre>{ "createTime": { // filter by create time of alert "from": xxxxxxxx, "to": yyyyyyyy }, "dismissTime": { // filter by dismiss time "from": xxxxxxxx, "to": yyyyyyyy, }, "dismissed": true false, // true = return only dismissed, // false = return non-dismissed "ID": ["alertid", ...], }</pre>

```

        configUID: [           // filter by alertconfig uid
                               // (shown as api key in UI. Requires
server      "Uid",           // shard key. Format: xxxx:abcd-1234-efgh
            ...
        ],
        GID: [                // if present, filter by alertgroup
            "gid",
            ...
        ],
        "workcentre": [       // filter by OFS workcentre ID
            "line",
            ...
        ],
        "workflow": "workflowName", // filter by the given workflow
        "workstate": [        // if present, filter by workstate
            "state",
            ....
        ],
        "eventChart": true || false // true to constrain to only alerts
                                     // that are displayed on the event
                                     // chart.
                                     // false or absent for all alerts
    }

```

terse	return a terse (or abbreviated) version of the alerts
limit	return only the most recent n alerts by create time matching the filter conditions. YOU SHOULD AVOID A QUERY WITH NO FILTER or limit.. it will return all alerts.
beforeTS	only return alerts created before this UTC unix millisecond timestamp (used internally for paging)
hardlimit	if there are more than this number of alerts that match the filter, fail with an error message

Response

The response will be a JSON object with the following forms:

On success, a 200 HTTP return with a set of alerts matching the filter (see below for a full example) :

```

{
  "alertset": [
    ...
  ],
  "setlength": n,
  "status": "ok",
  "tag": ""
}

```

On failure a non-200 HTTP status code (depending on failure) with a JSON body:

```

{
  "errorData": "reason for failure",
  "status": "error"
}

```

```
}
```

Example

Query: <https://demo.ofslive.com/Alert Store/query?limit=1>

Response contains a detailed json alert object, including the full line context when the alert was triggered. Contact OFS Support for advice on accessing information from this data structure:

```
{
  "alertset": [
    {
      "alertconfig": {
        "form": {
          "fields": [
            {
              "defaultValue": "no",
              "fieldType": "checkbox",
              "help": "All debris, foreign material and loose items created or used
during setup have been removed from machine",
              "name": "Foreign Material Check",
              "noValue": "no",
              "required": false,
              "title": "",
              "unit": "",
              "yesValue": "yes"
            },
            {
              "defaultValue": "no",
              "fieldType": "checkbox",
              "help": "Product contact zones have been cleaned and sanitised where
maintenance work was performed",
              "name": "Contact Zone Check",
              "noValue": "no",
              "required": false,
              "title": "",
              "unit": "",
              "yesValue": "yes"
            }
          ]
        },
        "no_event_chart": false,
        "template": "",
        "title": "New Alert",
        "type": "flow",
        "uid": "fd721fab-3087-45b2-a0ed-1b1f116290f5",
        "version": 6
      },
      "auditlog": [
        {
          "changeset": [
            {
              "from": "",
              "to": "",
              "what": "create"
            }
          ],
          "timestamp": 1546839979966,
          "user": "sewriter"
        }
      ]
    }
  ]
}
```

```

    },
    {
      "changeset": [
        {
          "from": "0",
          "to": "1546840020119",
          "what": "dismissTime"
        },
        {
          "from": "1546839960000",
          "to": "1546840020119",
          "what": "lastStateChange"
        },
        {
          "from": "Pending",
          "to": "Delayed",
          "what": "workstate"
        }
      ],
      "timestamp": 1546840020119,
      "user": "OFS-X System"
    }
  ],
  "createTime": 1546839960000,
  "data": {
    "Contact Zone Check": "no",
    "Foreign Material Check": "no"
  },
  "dismissTime": 1546840020119,
  "id": "cccc0000-0000-0000-0000-0000000018344",
  "lastStateChange": 1546840020119,
  "message": "",
  "state": {
    "trigger": {
      "match": "periodic",
      "matchCount": 1,
      "span": {},
      "title": "periodic weekly",
      "units": "minutes",
      "value": 0
    }
  },
  "workcentre": {
    "machineState": {},
    "spans": {
      "relay01": {
        "counts": {
          "out": 13191948,
          "out.raw": 13191948,
          "out.raw.unadjusted": 13191948,
          "out.unadjusted": 13191948,
          "rated": 595728,
          "rated.unadjusted": 595728,
          "through": 13195257,
          "through.unadjusted": 13195257
        },
        "end": 0,
        "id": 9352,
        "name": "relay01",
        "spanClass": "Case Packer",
        "spanType": "relay01",
        "start": 1543535400780,
        "type": "R"
      }
    }
  },
  "timestamp": 1546839960000,
  "timestampText": "2019-01-07 16:46:00.000",
  "totalMetrics": {
    "ava": 0.4997911350340649,

```

```

    "capitalTime": 47835979837,
    "counts": {
      "out": 105495486,
      "out.raw": 107054932,
      "out.raw.unadjusted": 107054932,
      "out.unadjusted": 107054868,
      "rated": 107033647,
      "rated.unadjusted": 107030580,
      "through": 110085362,
      "through.unadjusted": 110354027
    },
    "end": 1546839979837,
    "endText": "2019-01-07 16:46:19.837",
    "jobEvents": 287,
    "oeo": 0.4734199392106187,
    "openTime": 33798655358,
    "openUnitsIn": 110085103,
    "pe": 0.9884476981336533,
    "plannedDowntime": 99912194,
    "plannedDowntimeEvents": 14,
    "productionTime": 26433381516,
    "productionUnitsIn": 106814517,
    "quality": 0.9583062096848081,
    "runEvents": 395,
    "runFastEvents": 3,
    "runFastTime": 163593969,
    "runSlowEvents": 70,
    "runSlowTime": 588564350,
    "runTime": 16892268324,
    "runUnitsIn": 105797162,
    "setupEvents": 279,
    "setupTime": 7365273842,
    "setupUnitsIn": 3270586,
    "shiftEvents": 251,
    "shiftTime": 33898567552,
    "shortStopEvents": 222,
    "shortStopTime": 3599819,
    "start": 1499004000000,
    "startText": "2017-07-03 00:00:00.000",
    "unitsIn": 110085362,
    "unitsNamePlate": 112615122,
    "unitsOut": 105495486,
    "unitsRated": 107033647,
    "unplannedDowntime": 9541113192,
    "unplannedDowntimeEvents": 465,
    "unplannedSetupDowntime": 1507965703,
    "unplannedSetupDowntimeEvents": 18,
    "validSince": 1544952968167,
    "validSinceText": "2018-12-16 20:36:08.167"
  },
  "workcentre": {
    "class": "workcentre",
    "console": "OFSTESTLINE065",
    "consoletime": 1546839979942,
    "consoletimeText": "2019-01-07 16:46:19.942",
    "consoletimezone": "Australia/Melbourne",
    "id": 1,
    "name": "Test Line 065",
    "systemtimeText": "2019-01-07 16:46:19.942",
    "systemtimezone": "Australia/Melbourne",
    "title": "Test Line 065",
    "uptime": 1887022329
  }
},
"workcentre": "OFSTESTLINE065",
"workflow": "Shift Start Work Flow",
"workstate": "Delayed",

```

```
    "workstatelog": [
      {
        "endTime": 1546840020119,
        "startTime": 1546839960000,
        "workstate": "Pending"
      },
      {
        "endTime": 0,
        "startTime": 1546840020119,
        "workstate": "Delayed"
      }
    ]
  },
  "setlength": 1,
  "status": "ok",
  "tag": ""
}
```