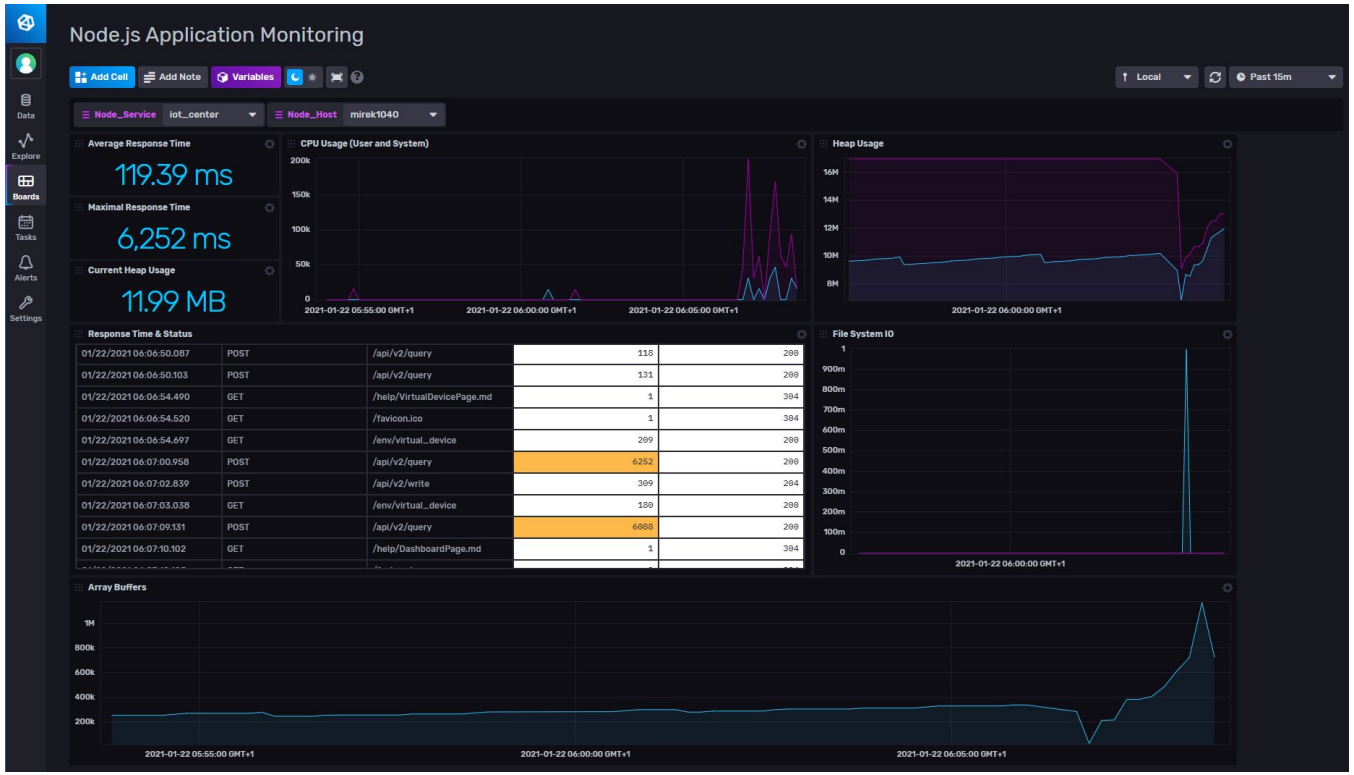
influxdata
Act in Time

Node.js monitoring

Workshop

Agenda

- Process Monitoring
- Response time Monitoring
- InfluxDB Dashboard
- Monitoring in 2 steps



Monitoring of Node.js process

Connect InfluxDB

```
// create Influx Write API to report application monitoring data
const writeAPI = new InfluxDB({url, token}).getWriteApi(org, bucket, 'ns', {
  defaultTags: {
    service: 'iot_center',
    host: require('os').hostname(),
  },
}
```

Write process data into InfluxDB

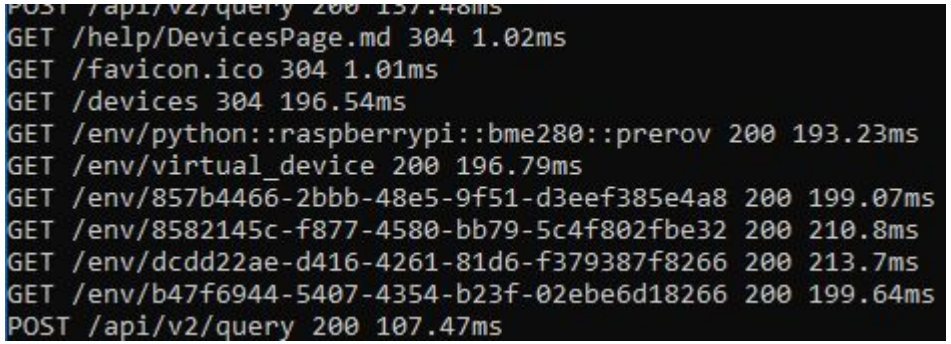
```
  // https://nodejs.org/api/process.html#process_process_memoryusage
  writeAPI.writePoint(createPoint('node_memory_usage', process.memoryUsage()))
  // https://nodejs.org/api/process.html#process_process_cpuusage_previousvalue
  writeAPI.writePoint(createPoint('node_cpu_usage', process.cpuUsage()))
  // https://nodejs.org/api/process.html#process_process_resourceusage
  writeAPI.writePoint(createPoint('node_resource_usage', process.resourceUsage()))
```

```
// convert data into point
function createPoint(measurement, usage) {
   const point = new Point(measurement)
   for (const key of Object.keys(usage)) {
     point.floatField(key, usage[key])
   }
   return point
}
```

- By default it is reported every 10s

Http response code and time monitoring

```
// export a monitoring function for express.js response time monitoring
module.exports = function (app) {
  app.use(
    responseTime((req, res, time) => {
      // write response time to InfluxDB
      const point = new Point('express_http_server')
        .tag('uri', req.path)
        .tag('method', req.method)
        .tag('status', String(res.statusCode))
        .floatField('response_time', time)
      writeAPI.writePoint(point)
    })
  )
}
```



IoT Center Monitoring

Node.js application monitoring in 3 steps

Use IoT Center Example

1. Copy ***monitor.js*** file from the Iot Center GIT
    - it expects ***env.js*** file with InfluxDB connection parameters
2. Register monitor.js code

```
const onboardInfluxDB = require('./influxdb/onboarding')
const {logEnvironment, INFLUX_URL} = require('./env')
const {monitorResponseTime, startProcessMonitoring} = require('./monitor')

async function startApplication() {
  const app = express()

  // monitor application
  monitorResponseTime(app)
  startProcessMonitoring()
  ...
}
```


Install Dashboard 1/2

Left Menu

- Settings

Tab

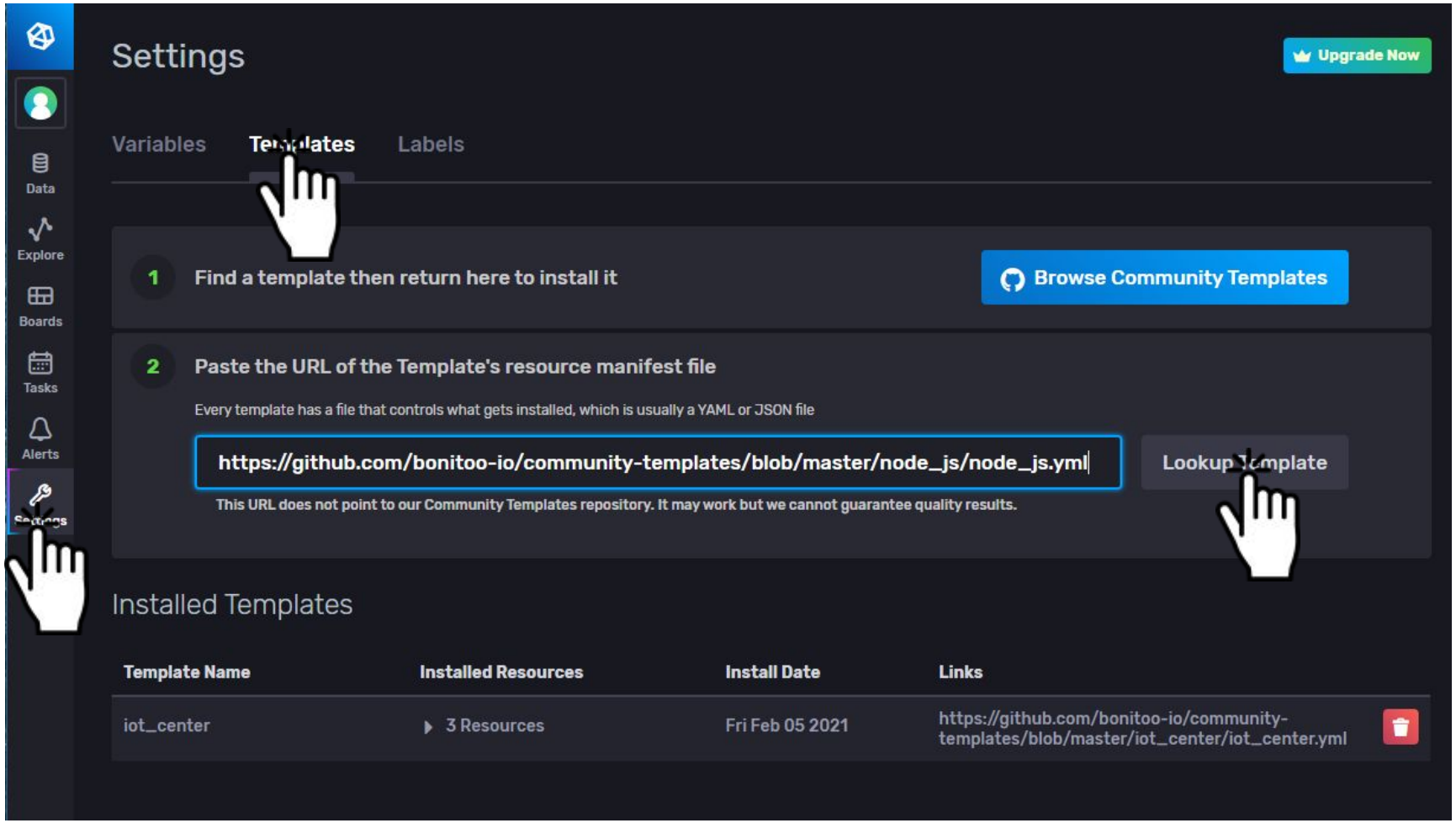
- Templates

Paste the URL

- URL below

Button

- Lookup template

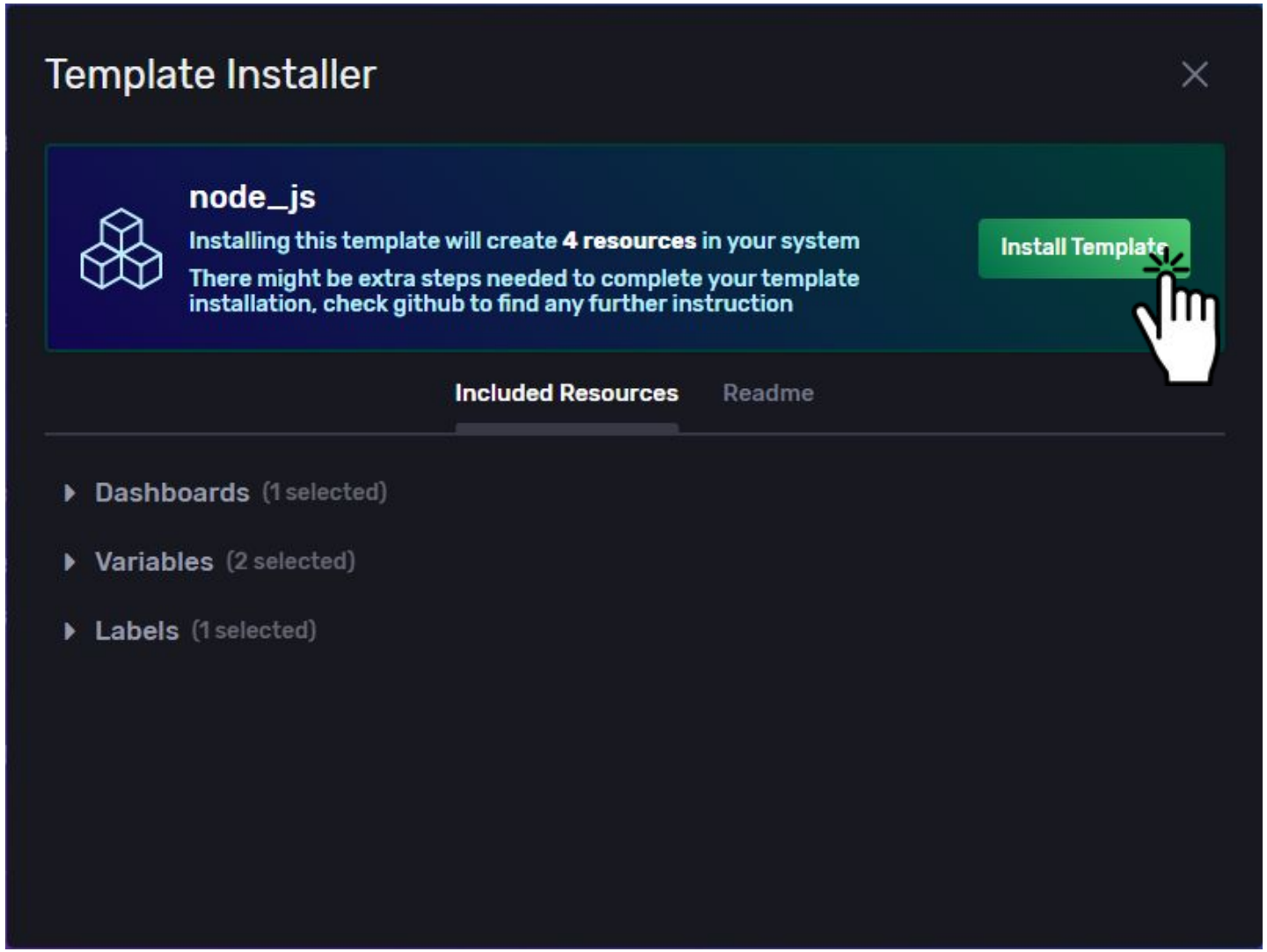


https://github.com/influxdata/community-templates/blob/master/node_js/node_js.yml

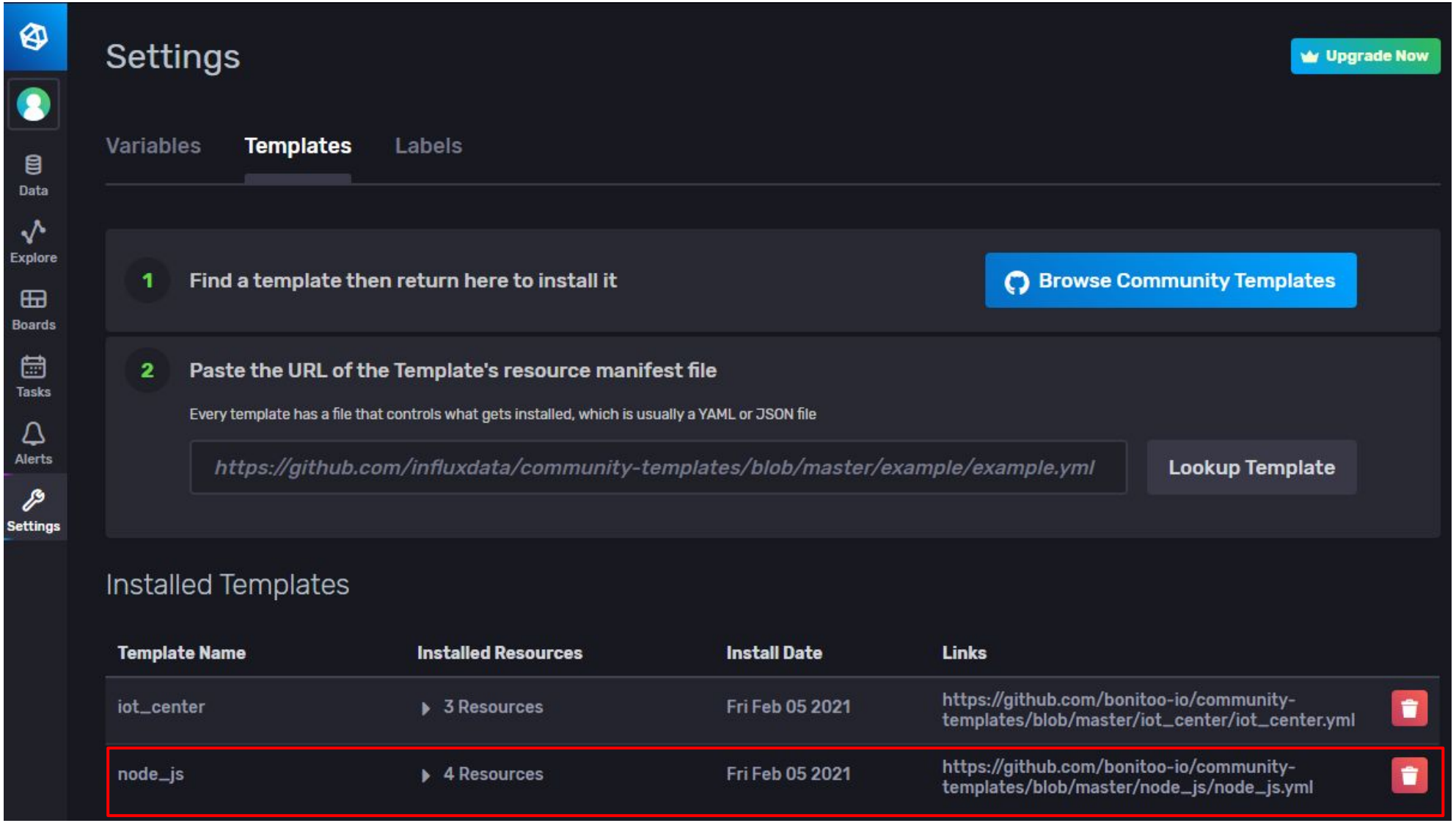
Confirm imported template

Button

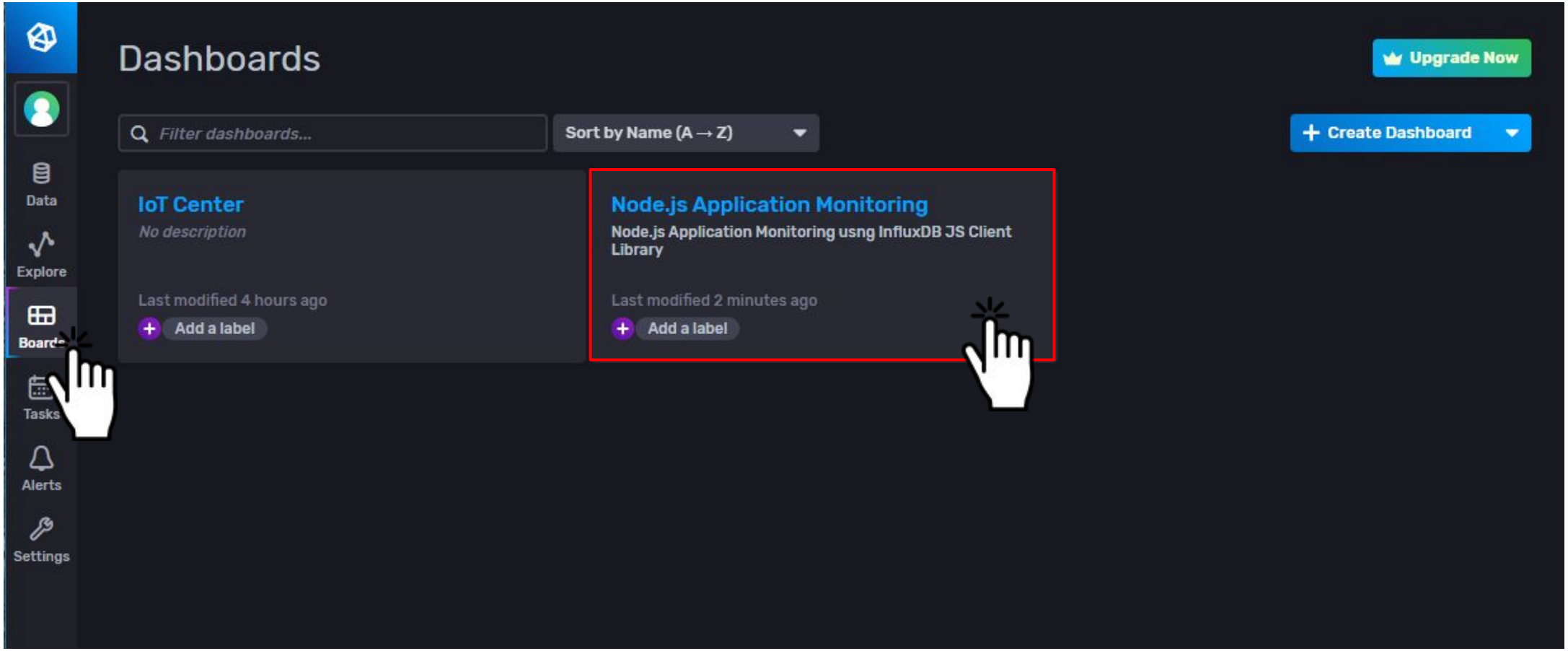
- Install Template



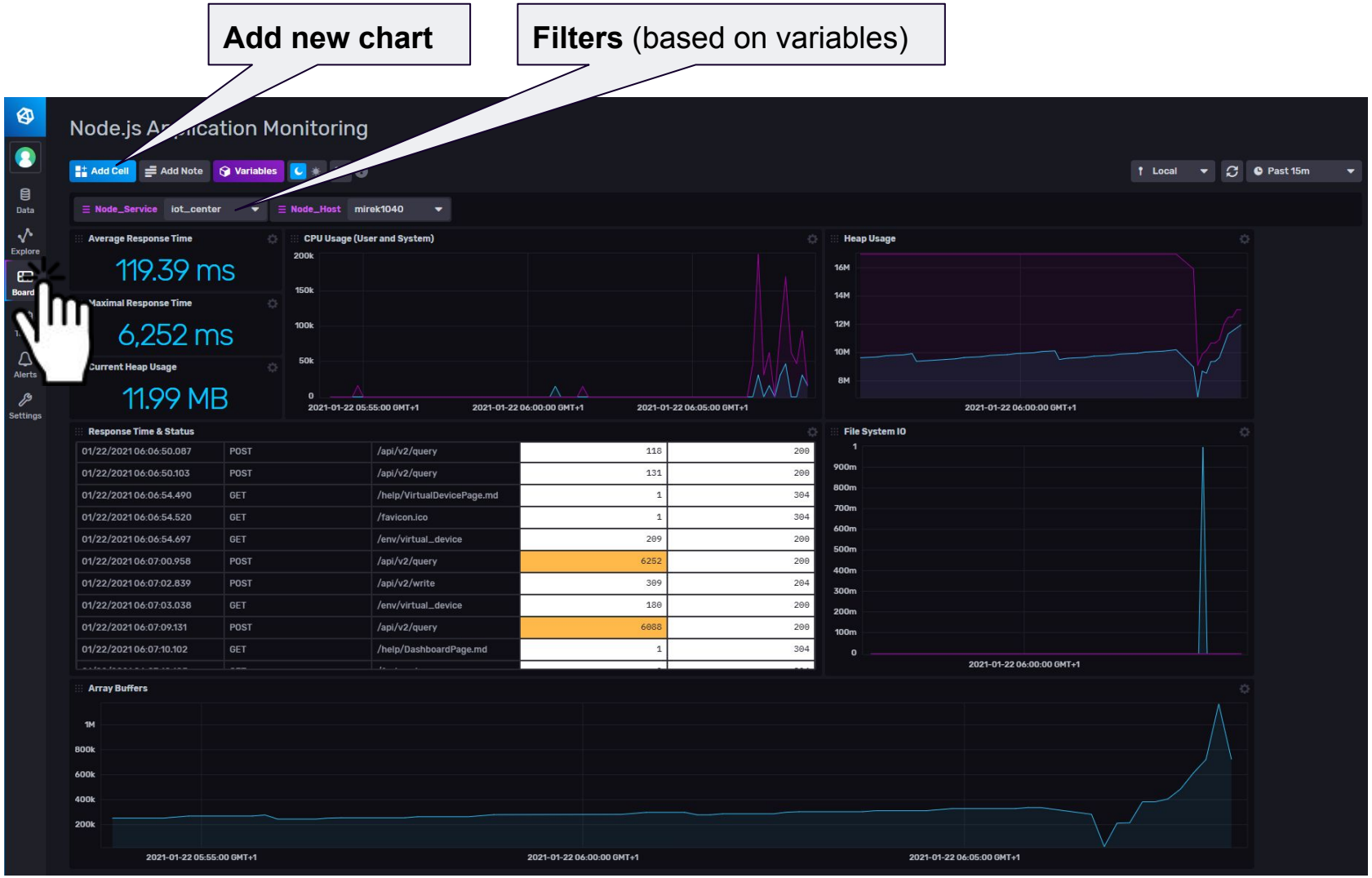
Imported Template



Open the imported dashboard



Node.js Monitoring Dashboard



Application monitoring - custom events

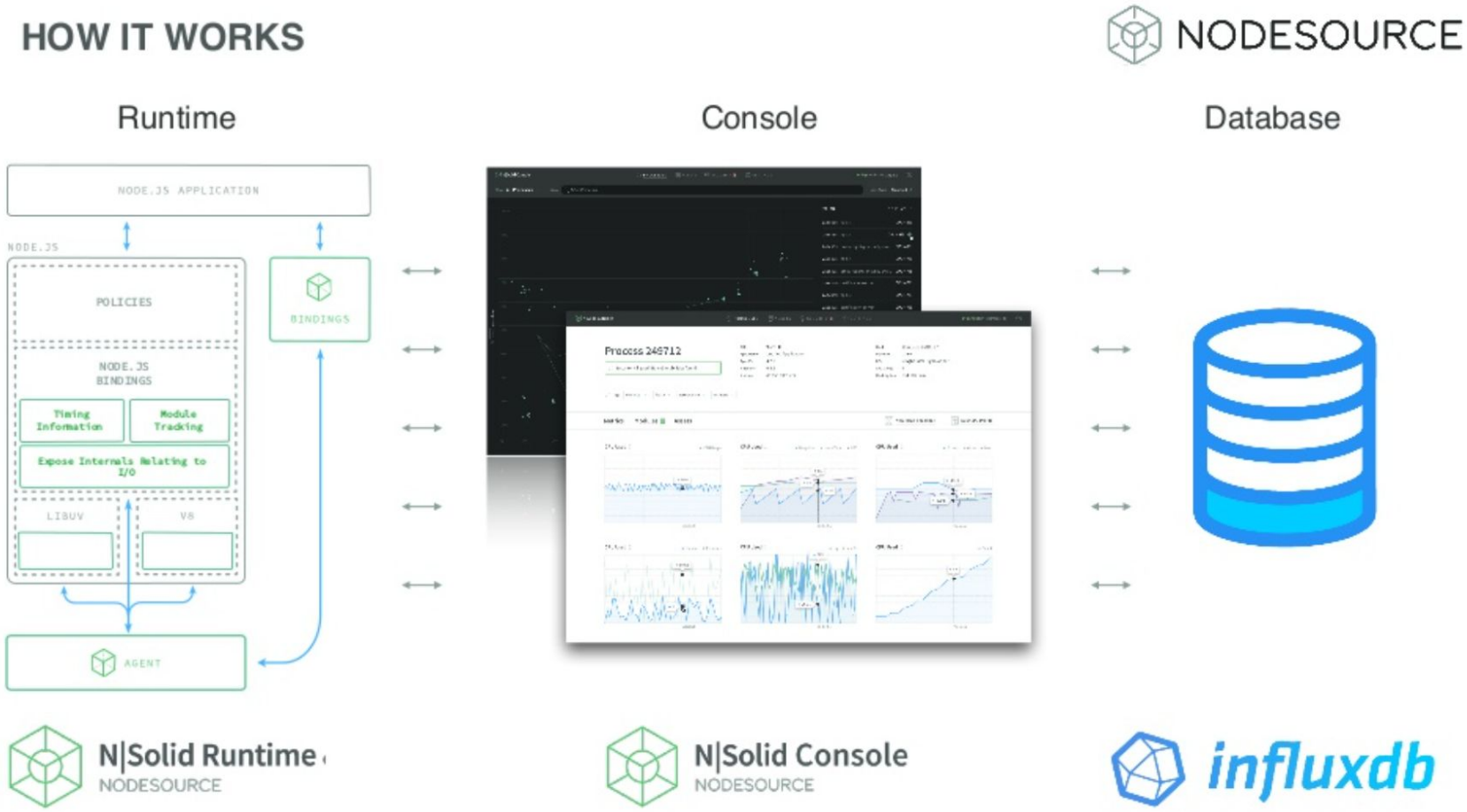
InfluxDB can store and query any application event

```
const point = new Point('user_registered')
        .tag('name', req.name)
        .tag('email', req.email)
        .tag('result', String(res.statusCode))
        .floatField('response_time', time)

writeAPI.writePoint(point)
```

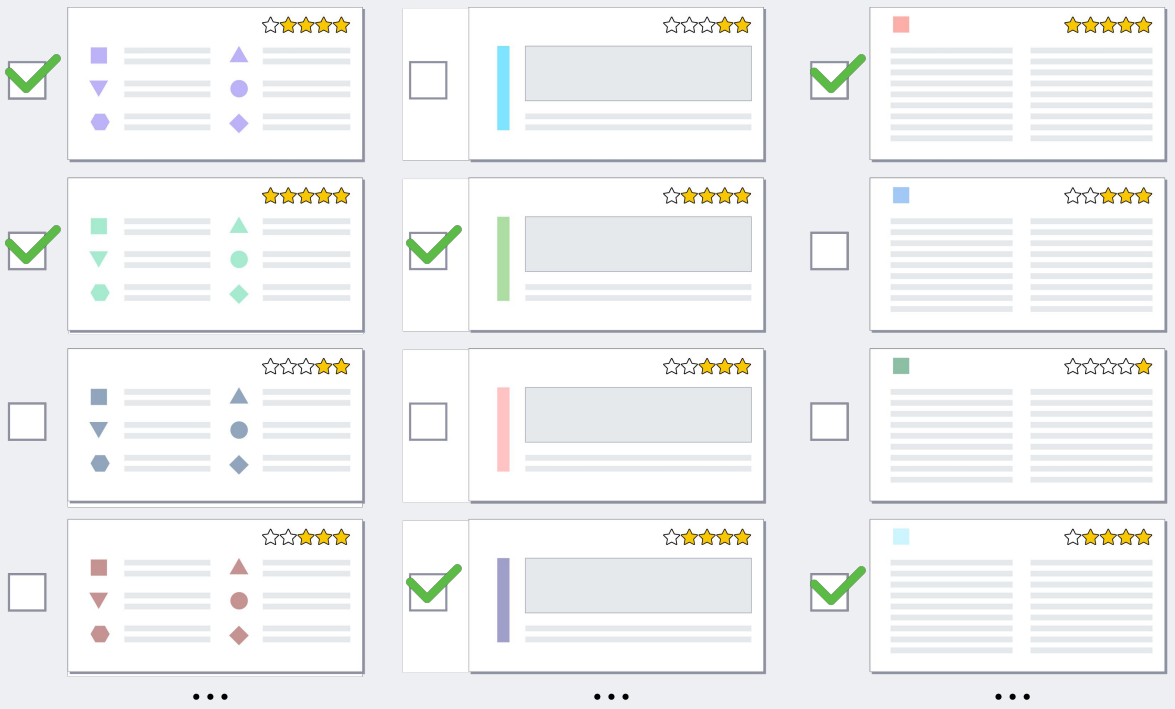

Nodesource

Advanced real-time insight into application performance and security

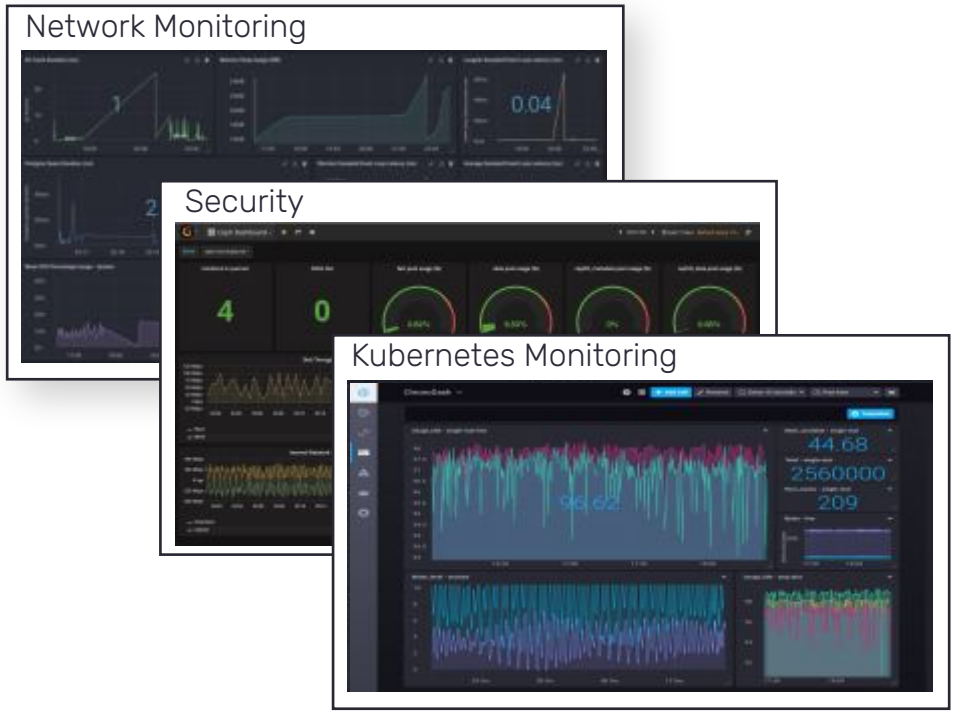


InfluxDB Templates

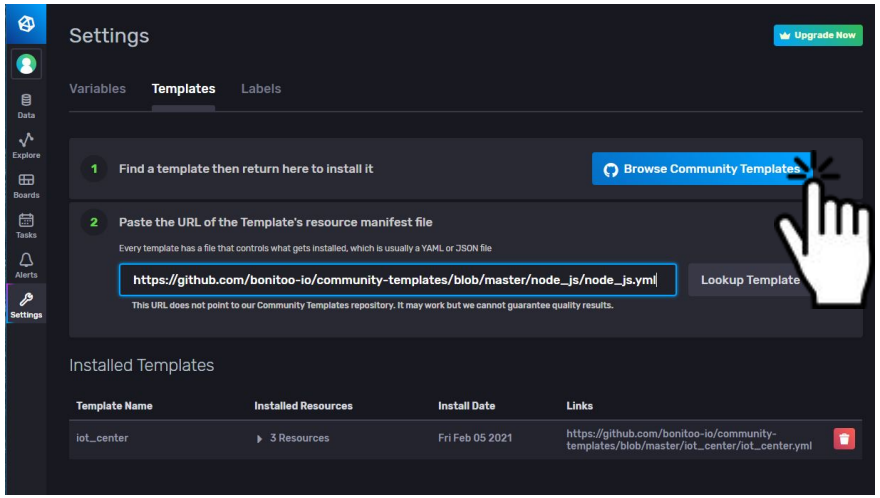
Select **Data Sources** › *Select* **Dashboards** › *Select* **Queries & Scripts**

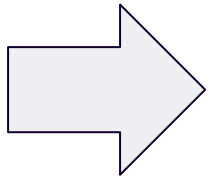


TIME TO AWESOME



Show & contribute to InfluxDB Templates





InfluxDB Community Templates

verify-all-templates passing | Slack join chat

InfluxDB 2.0 introduces InfluxDB templates—prepackaged InfluxDB configurations that contain everything from dashboards and Telegraf configurations to notifications and alerts in a single manifest file. Use InfluxDB templates to get a fresh instance of InfluxDB set up quickly, create reusable templates for common setups, back up your own deployment setup, and share your templates with the community.

In true open source spirit, you can update InfluxDB templates with common use cases and share with other InfluxDB users, so they can get started faster, use known configurations, and contribute improvements to templates that benefit everyone in the community.

The purpose of this repository is to promote the creation, sharing, and reuse of templates among the InfluxDB community. Anybody can submit new templates or improvements upon existing templates and use these templates in their own InfluxDB instances.

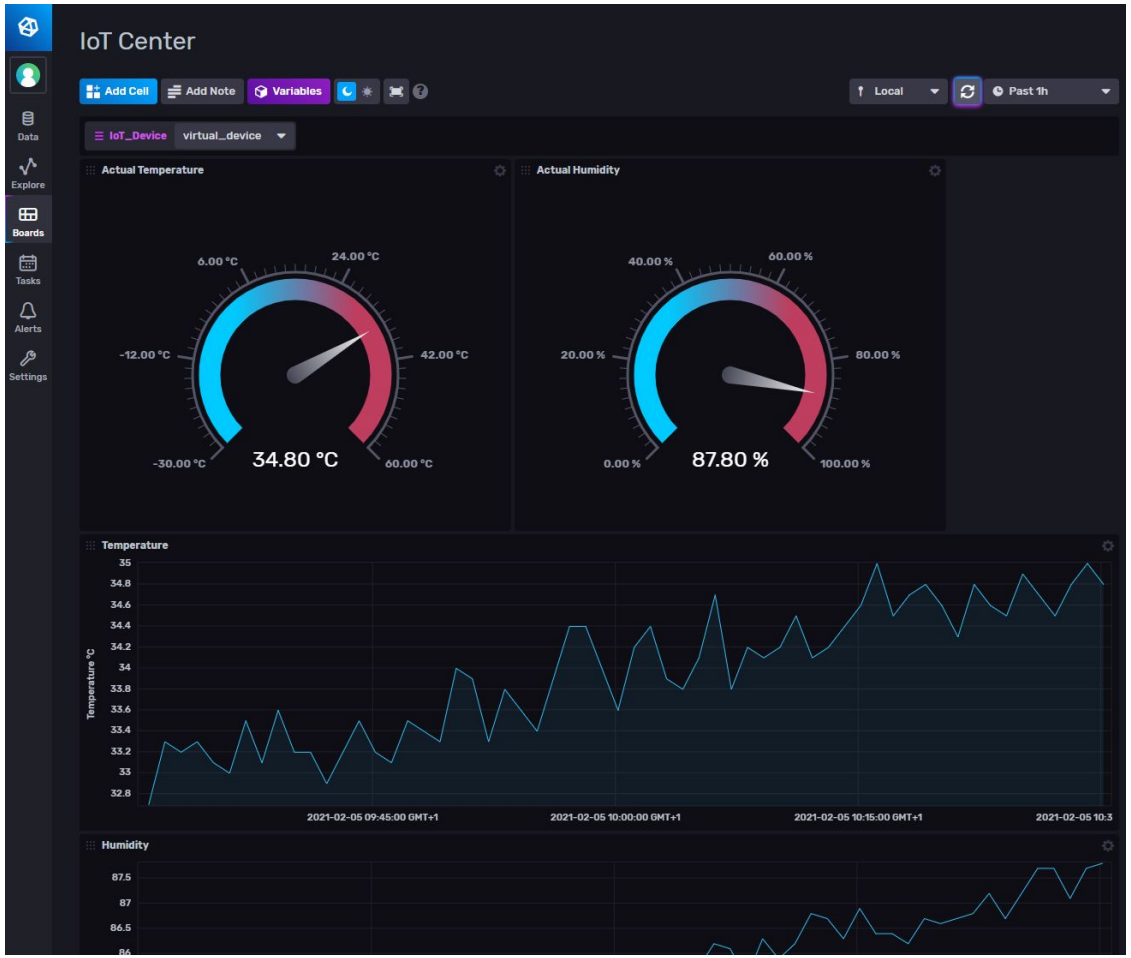
Templates

Start by reading how to use a template, then check each template's individual instructions for further setup and customization options.

Template	Description	Author
Air Quality	Retrieve air quality statistics from the US EPA website	Kristina Robinson
Algorithmia	Monitor machine learning model performance metrics	@koverholt
Apex Legends	Collect player metrics from the game Apex Legends	@b3vis
AWS Cloudwatch Monitoring	Monitor AWS EC2 and ELB	bonitoo.io
Ceph Cluster	Monitor your Ceph Cluster with Prometheus metrics	@bonitoo.io
Counter Strike: Global Offensive	Get stats about your game. Kills, Deaths and stats by weapon.	Ignacio Van Droogenbroeck
Covid-19 in South America	Current data and graphs covering Covid-19 cases and deaths in South America	Ignacio Van Droogenbroeck
Cribl LogStream	Monitor and visualize your metric data from Cribl LogStream.	Clint Sharp
Currency Exchange Rates	Visualize and analyze currency exchange rates using Quandl.	Wojciech Kocjan
DigitalOcean Billing	Get your balance, month consumption and month to date balance	Ignacio Van

IoT Center Template

https://github.com/influxdata/community-templates/tree/master/iot_center



Q & A

Your next steps

- Keep playing with the IoT Center sample app with your Free InfluxDB Cloud account
- Try other templates from the gallery to monitor your apps, sensors, and so much more
- Join the community
  - Community.Influxdata.com
  - Slack
  - GitHub

Thank You

influxdata®

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