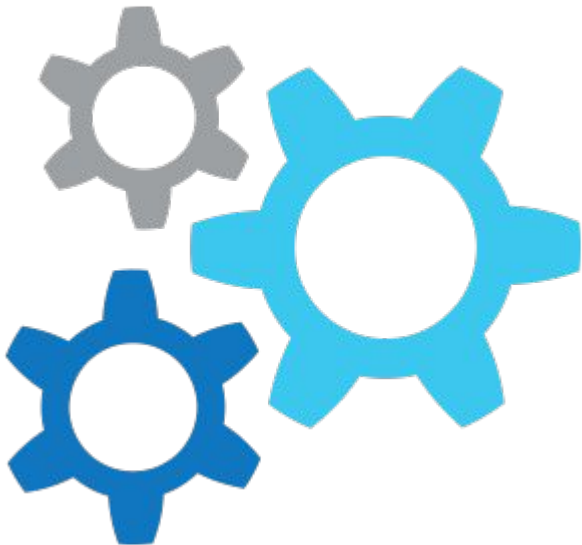


A dash around the table



Julian Lyndon-Smith
Thomas Hansen
www.nodeable.io

A quick introduction

- Thomas Hansen, Julian Lyndon-Smith
- appSolutions, dot.r
- 50+ years progress experience ...
- specialists in node, abl, rtb, alm, ...

Disclaimer

- A commercial product
- not a commercial presentation
- call us out at any time !

Background

- Roundtable very successful progress application to manage scm
 - schema management
 - version configuration
 - task management
 - version control
- Written in ABL

Background

- Next round of product enhancement
 - advanced task management
 - code review
 - multiple status codes
 - milestones
 - work estimating and logging
 - Lifecycle visibility
- Non-developer use
- Rapid delivery schedule

Background

- Consolidate multiple add-ons to Roundtable built over the years
- Extend beyond OpenEdge
- Easily integrate with modern technology
- Fast delivery - hosted solution
- Extensibility - easily extend with new features

Roundtable and OpenEdge

- Roundtable core
- Server:
 - AppServer / Client-Server
 - Repository - OpenEdge database
- Clients
 - Windows GUI Client
 - PDSOE Plugin client

Roundtable Dashboard

Roundtable

1 home 2 dashboard

- Dashboard
main dashboard view
- Workspaces
manage workspaces
- Tasks
manage tasks
- Users
user maintenance
- Audit Log
examine the audit logs
- Status Codes
manage task status codes
- Priority Codes
manage task priority codes
- Resolution Codes
manage task resolution codes

Task aging

2016-06-05 - 2017-06-05

all

Age Group	Number of Tasks
1 Day	8
2 Days	6
3 Days	12
4 Days	3
5 Days	4
6 Days	1
7 Days	1
8 Days	3
9 Days	2
10 Days	0
11-15 Days	3
16-25 Days	4
26-50 Days	0
51+ Days	2

Tasks at a glance

2016-12-01 - 2017-06-30

all

Age Group	Number of Tasks
1 Day	3.0
2 Days	3.0
3 Days	3.0
4 Days	0
5 Days	0
6 Days	0
7 Days	0
8 Days	0
9 Days	0
10 Days	0
11-15 Days	0
16-25 Days	0
26-50 Days	0
51+ Days	0

Legend: new

Requirements

- minimal OE changes
- minimal user participation in setup
- best-of-breed components
- plugin flexibility
- available anywhere, anytime, any device
- re-purpose existing software wherever possible
- charting
- statistics
- enhanced audit trail
- “out of the way” software

The Stack - software used in the dashboard

- Roundtable: OpenEdge database, ABL, WebSpeed, AppServer
- Node.js, Typescript
- Loopback & nodeSpeed
- AngularJS
- Material UI
- Gitlab
- Docker and Rancher
- Influxdb, Grafana, Redis
- Other cool tech ...

Roundtable

- RTB >> Dashboard
 - RTB Event Handler and API (ABL) : Dashboard Engine
 - POST events to auditlog
 - POST, PUT and DELETE data changes from RTB

Expose Roundtable

- Expose RTB to dashboard
- WebSpeed REST APIs
- GET data from dashboard
- PUT to update common data in RTB
- POST to create new data in RTB (Tasks and workspaces)
- DELETE to delete common data
- Simple WebSpeed for APIs rather than the newer solutions available...

node.js & TypeScript

- free, open source server framework
- multi-platform
- JavaScript runtime built on Chrome's V8 JavaScript engine, running on the server
- the largest ecosystem of open source libraries in the world
- asynchronous, event driven, single-threaded
- perfect for server-side code

Loopback

- <https://loopback.io/>
- highly-extensible, open-source Node.js framework
- Quickly create dynamic end-to-end REST APIs.
- models
- orm
- multiple datasources
- schema migration

Loopback Explorer Demo

Nodespeed 2.0

- Open Source project from whoGloo, Inc.
- Released next month
- Wrapper around loopback
- schema management
- relationship management
- 2-way compatibility with loopback
- data dictionary designer
 - <https://github.com/whoGloo/nodespeed>



AngularJS



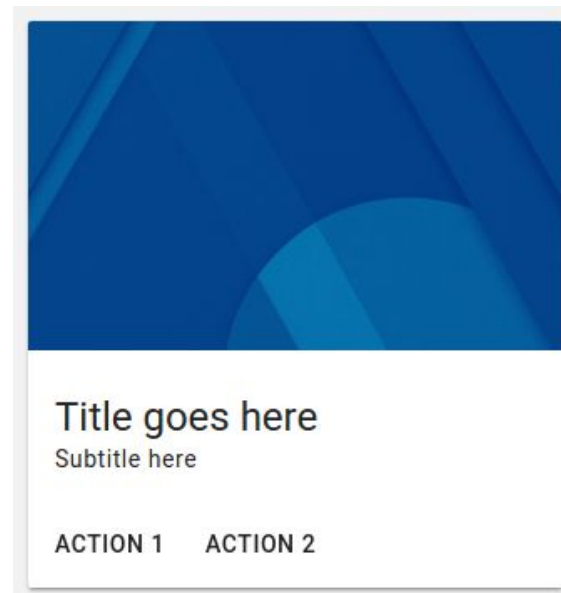
- structural framework for dynamic web apps
- data binding
- dependency injection
- typescript 2.3
- everything you need to build a CRUD app
 - Data-binding, basic templating directives, form validation, routing, deep-linking, reusable components
- <https://www.madewithangular.com/>

Simple angular code

```
<div ng-app ng-init="qty=1;cost=2">
  <b>Invoice:</b>
  <div>
    Quantity: <input type="number" min="0" ng-model="qty">
  </div>
  <div>
    Costs: <input type="number" min="0" ng-model="cost">
  </div>
  <div>
    <b>Total:</b> {{qty * cost | currency}}
  </div>
</div>
```

Material UI

- <https://material.io/>
- design language developed in 2014 by Google
- all widgets needed for slick ui
- free, open source



Gitlab

- Git repository manager
 - Wait - doesn't this compete with RTB ?
- Code churn
- Code statistics
- Blame
- Code review



GitLab

```

fa3883f4(jmls 2017-05-03 11:55:17 23)   aagTasksDrilldown = new BehaviorSubject(false);
48b0667d(jmls 2017-05-03 12:46:42 24)   pieTasksDrilldown = new BehaviorSubject(false);
32ebb585(jmls 2017-05-30 07:14:59 25)   workspaceTasksDrilldown = new BehaviorSubject(false);
090e4ce1(jmls 2017-02-02 15:32:07 26)
090e4ce1(jmls 2017-02-02 15:32:07 27)   constructor(private _http:Http){
63dec7cb(jmls 2017-05-03 09:14:41 28)     this.clearCache();
090e4ce1(jmls 2017-02-02 15:32:07 29)   }
090e4ce1(jmls 2017-02-02 15:32:07 30)   clearCache(){
090e4ce1(jmls 2017-02-02 15:32:07 32)     this._tasks = null;
63dec7cb(jmls 2017-05-03 09:14:41 33)
63dec7cb(jmls 2017-05-03 09:14:41 34)     this.bucket = {
63dec7cb(jmls 2017-05-03 09:14:41 35)       agedTasks: { }
63dec7cb(jmls 2017-05-03 09:14:41 36)     };
63dec7cb(jmls 2017-05-03 09:14:41 37)   }
090e4ce1(jmls 2017-02-02 15:32:07 38)   private getData() {
090e4ce1(jmls 2017-02-02 15:32:07 39)     if(!this._tasks){
9d5e3cf0(jmls 2017-04-24 13:41:40 40)       this._tasks = this._http.get('api/tasks').publishReplay(1).refCount(
090e4ce1(jmls 2017-02-02 15:32:07 41)     )
63dec7cb(jmls 2017-05-03 09:14:41 42)     }
090e4ce1(jmls 2017-02-02 15:32:07 43)     return this._tasks;
b5809155(jmls 2017-03-28 18:16:54 44)   }
090e4ce1(jmls 2017-02-02 15:32:07 45)   find(params:any = {}){
090e4ce1(jmls 2017-02-02 15:32:07 46)     return this.getData().map((res:Response) => {
9d5e3cf0(jmls 2017-04-24 13:41:40 47)       let data = res.json();
63dec7cb(jmls 2017-05-03 09:14:41 48)       return this[params.filter] ? this[params.filter](data,params) : data
63dec7cb(jmls 2017-05-03 09:14:41 49)     });
63dec7cb(jmls 2017-05-03 09:14:41 50)   }
63dec7cb(jmls 2017-05-03 09:14:41 51)   private pieTasks(data,params) {
63dec7cb(jmls 2017-05-03 09:14:41 52)     let startDate = params.startDate;
63dec7cb(jmls 2017-05-03 09:14:41 53)     let endDate = params.endDate;
63dec7cb(jmls 2017-05-03 09:14:41 54)
48b0667d(jmls 2017-05-03 12:46:42 55)     let bucket = {new: [],completed: []};
48b0667d(jmls 2017-05-03 12:46:42 56)
48b0667d(jmls 2017-05-03 12:46:42 57)
48b0667d(jmls 2017-05-03 12:46:42 58)
48b0667d(jmls 2017-05-03 12:46:42 59)
48b0667d(jmls 2017-05-03 12:46:42 60)
48b0667d(jmls 2017-05-03 12:46:42 61)

```

Gitlab

- gitlab model generation
- had an itch, needed scratching
- Once battle-tested , refactor as standalone open source project



GitLab

Other plugins

- SonarQube
- Ticketing systems
 - Jira (others by demand)
- Chat Systems
 - Gitter, Mattermost, Rocketchat
- CI systems
 - Jenkins, GoCD, BuildBot
- Project Management
 - Open Project

Gitlab

GitLab

```
export class Label extends Base implements IGitlabLabelApi {

  constructor (config:any) {
    super(config);
  }

  /**
   * Creates a new label for the given repository with the given name and color.
   *
   * @method create
   * @memberOf Label#
   * @param {Object} data An object containing data to pass to the Gitlab API.
   * @param { number|string } [options.id] id The ID or URL-encoded path of the project
   * @param { string } [options.name] name The name of the label
   * @param { string } [options.color] color The color of the label given in 6-digit hex
   * @param { string } options.description description The description of the label
   * @param { number } options.priority priority The priority of the label. Must be between 1 and 10
   * @return { Promise<any> } result of api call
   */

  create (data:any):Promise<any> {

    return this.makeRequest({
      verb: 'post',
      path: '/projects/:id/labels',
      data
```


Statistics

- Time Series Database
- High write & query loads
- Written specifically for timestamped data
 - DevOps monitoring, application metrics, IoT sensor data, real-time analytics
- automatically expire & delete any unwanted data
- datasource for grafana



Statistics



- metric analytics & visualization suite
- dashboard and graph composer
- Uses influxDB as datasource



Docker

Why Docker and what we can we do with it?
We do *everything* with Docker!



See previous years Docker presentations:

[http://pugchallenge.org/downloads2016.html#Complementary Technologies](http://pugchallenge.org/downloads2016.html#Complementary_Technologies)

<http://pugchallenge.org/downloads2015.html>

Rancher



















“Simple, easy-to-use container management”

- Orchestration engine for Docker
- Web based UI for Docker based stacks and services
- Supports multiple Docker platforms
 - Cattle
 - Swarm
 - Kubernetes
- nodeable soon to be Rancher Partner

Rancher Catalogs


Catalog: Nodeable

Search... Category: All

 <p>Apache Solr</p> <p>Apache Solr is highly reliable, scalable and fault tolerant, providing distributed indexing, replication and load-balanced querying, automate...</p> <p>View Details</p>	 <p>Crucible</p> <p>Review code, discuss changes, share knowledge, and identify defects across SVN, Git, Mercurial, CVS, and Perforce.</p> <p>View Details</p>	 <p>Docker Influxdb Grafana</p> <p>Grafana: Beautiful metric & analytic dashboards. Including Influxdb. Spinups hosted version.</p> <p>View Details</p>	 <p>ELK</p> <p>ELK (Elasticsearch, Logstash, Kibana) stack</p> <p>View Details</p>	 <p>Etcd</p> <p>A distributed key/value store that provides a reliable way to store data across a cluster of machines nodeable custom version</p> <p>View Details</p>	 <p>Gerrit</p> <p>Gerrit provides web based code review and repository management for the Git version control system.</p> <p>View Details</p>
 <p>Gitlab Enterprise Edition</p> <p>Gitlab EE is a free GitHub alternative.</p> <p>View Details</p>	 <p>GitLab Runner</p> <p>GitLab Docker Runner for GitLab CE</p> <p>View Details</p>	 <p>Gogs</p> <p>A painless self-hosted Git service nodeable version</p> <p>View Details</p>	 <p>Keycloak</p> <p>Keycloak is an open source Identity and Access Management solution aimed at modern applications and services. It makes it easy to secure...</p> <p>View Details</p>	 <p>MongoDB</p> <p>Single instance MongoDB</p> <p>View Details</p>	 <p>px-dev</p> <p>Software defined enterprise storage for Linux Containers. nodeable custom version.</p> <p>View Details</p>
 <p>Rancher Backup</p> <p>It's a general purpose to solve backup</p>	 <p>Rancher Lets Encrypt</p> <p>Automatically create and manage</p>	 <p>Redis</p> <p>Redis is an open source (BSD</p>	 <p>Rundeck</p> <p>Turn your operations procedures into</p>		

Rancher Catalogs - OpenEdge


Catalog: OpenEdge



OpenEdge Simple

Simple OpenEdge Environment with a data container

[View Details](#)



OpenEdge Simple FileSystem

Simple OpenEdge Environment with a data container on remote file system

[View Details](#)

Rancher Catalogs - Creating a new stack

New Stack

Name*
rtb-dashboard

Description
Description

Configuration Options

Enter an instance name*
[]
This will be used to name the instance and in the instance URL

Enter the base URL*
rtbdashboard.io
This is the base URL for your instance. The complete URL will then be https://\${TEAM_NAME}.\${BASE_URL}

Region*
Local
Region to launch the containers on.

Environment type*
Development
Environment type.

Storage Volume driver*
local
Volume driver storage

MongoDB storage Volume driver*
local
Volume driver for MongoDB storage

Dashboard customer name*
Roundtable Software
Dashboard customer name. Will be used for default name spaces.

Roundtable repository REST URL*
http://win-dev.nodeable.io/cgi-bin/demo-dashboard.cgi/proxyapi/
This is the base REST URL for the dashboard RTD repository.

Roundtable Admin User*
Administrator
Roundtable Admin user. This user will be created in JIRA as the admin user.

Roundtable Admin User Password*
..... [Generate](#)
Roundtable Admin user password.

RTB Dashboard Stack

Stack: demo-rtb-dashboard

Description: Demo RTB Dashboard

Service	Image	Ports	Type	Containers	Actions
Active dashboard + 1 Sidekick	nodeable/rtb-dashboard	60124	Service	2 Containers	⏪ ⋮
Active elasticsearch + 1 Sidekick	docker.elastic.co/elasticsearch/elasticsearch:5.4.0	56806, 64973	Service	2 Containers	⏪ ⋮
Active gitlab + 1 Sidekick	nodeable/gitlab-ee	53434, 55224	Service	2 Containers	⏪ ⋮
Active grafana + 1 Sidekick	grafana/grafana:latest	64531	Service	2 Containers	⏪ ⋮
Active influxdb + 1 Sidekick	influxdb	59274, 63832	Service	2 Containers	⏪ ⋮
Active kibana	nodeable/kibana	51141	Service	1 Container	⏪ ⋮
Active logstash	nodeable/logstash:5.2.2	62952	Service	1 Container	⏪ ⋮
Active mongo + 1 Sidekick	mongo	64594	Service	2 Containers	⏪ ⋮
Active postgres + 1 Sidekick	sameersbn/postgresql:9.6-2	62467	Service	2 Containers	⏪ ⋮
Active redis + 1 Sidekick	redis	53738	Service	2 Containers	⏪ ⋮

RTB Dashboard Stack

Service: dashboard in demo-rtb-dashboard Active

Type: Service

Scale: 1 [-] [+]

Image: nodeable/rtb-dashboard

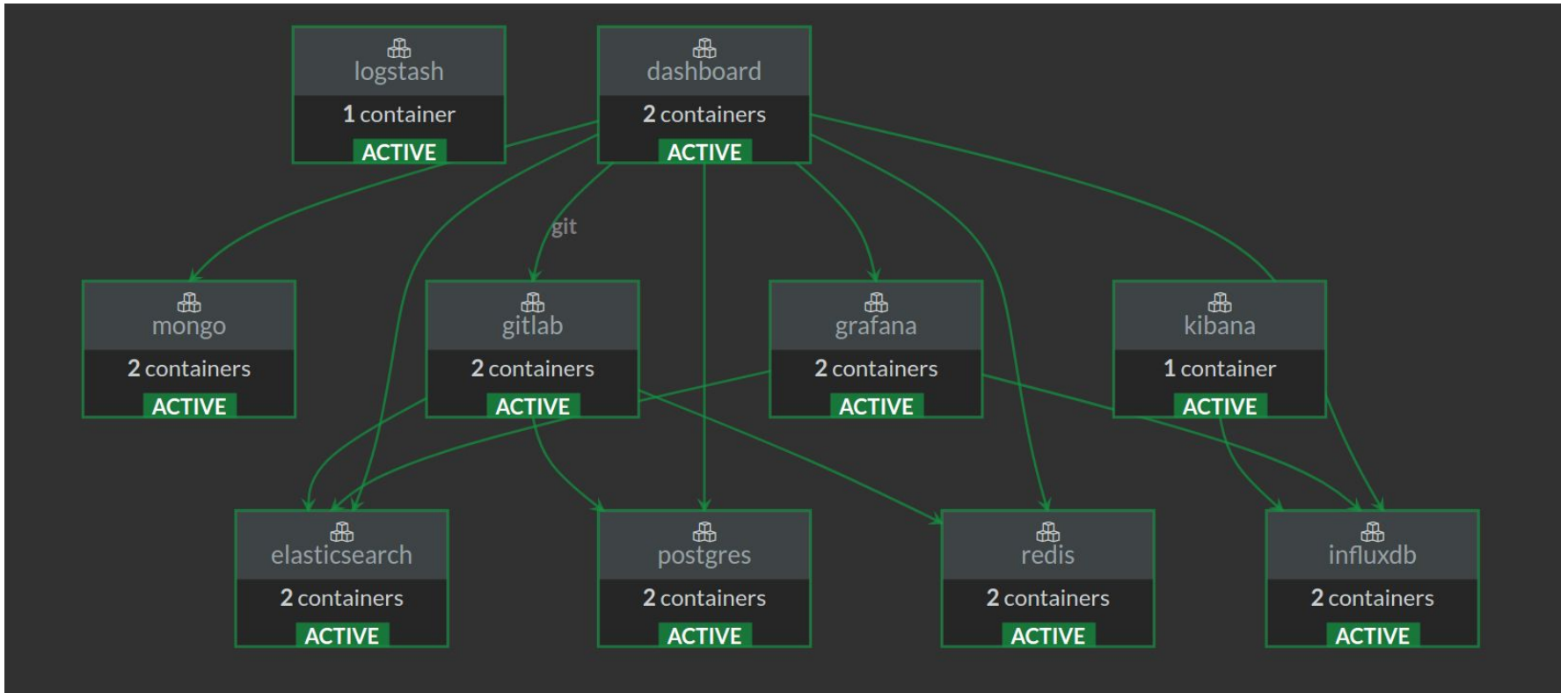
Entrypoint: None

Command: None

Ports Containers Labels Links Log

State	Name	IP Address	Host	Image	Stats
Running	demo-rtb-dashboard-dashboard-1	10.42.115.117	nodeable-longhorn-ubuntu-002	nodeable/rtb-dashboard	n/a
Started-Once	demo-rtb-dashboard-dashboard-das...	None	nodeable-longhorn-ubuntu-002	busybox	n/a

RTB Dashboard Stack



Demo

That being said...



Contact us

julian@nodeable.io
thomas@nodeable.io

<https://nodeable.io>