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

Task aging
2015-06-05 - 2017-06-05

Tasks at a glance
2015-12-01 - 2017-06-30
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](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

```html
<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/](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
aagTasksDrilldown = new BehaviorSubject(false);
pieTasksDrilldown = new BehaviorSubject(false);
workspaceTasksDrilldown = new BehaviorSubject(false);

constructor(private _http: Http){
  this.clearCache();
}

clearCache(){
  this._tasks = null;

  this.bucket = {
    agedTasks: {}
  };
}

private getData(){
  if(!this._tasks){
    this._tasks = this._http.get('api/tasks').publishReplay(1).RefCount();
  }

  return this._tasks;
}

find(params:any = {}){
  return this.getData().map((res:Response) => {
    let data = res.json();
    return this[params.filter] ? this[params.filter](data,params : data) : data;
  });
}

private pieTasks(data,params) {
  let startDate = params.startDate;
  let endDate = params.endDate;

  let bucket = {new: [], completed: []};
Gitlab

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

- SonarQube
- Ticketing systems
  - Jira (others by demand)
- Chat Systems
  - Gitter, Mattermost, RocketChat
- CI systems
  - Jenkins, GoCD, BuildBot
- Project Management
  - Open Project
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 format
     * @param {string} [options.description] description The description of the label
     * @param {number} options.priority priority The priority of the label. Must be a number 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
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
Rancher Catalogs - OpenEdge

Catalog: OpenEdge

OpenEdge Simple
Simple OpenEdge Environment with a data container

OpenEdge Simple FileSystem
Simple OpenEdge Environment with a data container on remote file system

View Details
View Details
Rancher Catalogs - Creating a new stack

<table>
<thead>
<tr>
<th>New Stack</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name*</td>
</tr>
<tr>
<td>rtd-dashboard</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Configuration Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enter an instance name*</td>
</tr>
<tr>
<td>Local Region*</td>
</tr>
<tr>
<td>Storage Volume driver*</td>
</tr>
<tr>
<td>local Storage Volume driver storage</td>
</tr>
<tr>
<td>Dashboard customer name*</td>
</tr>
<tr>
<td>Roundtable Software</td>
</tr>
<tr>
<td>Roundtable Admin User*</td>
</tr>
<tr>
<td>Administrator</td>
</tr>
<tr>
<td>Roundtable Admin User Password*</td>
</tr>
<tr>
<td>..............................</td>
</tr>
</tbody>
</table>
RTB Dashboard Stack
RTB Dashboard Stack
RTB Dashboard Stack
Demo
That being said...
Contact us

julian@nodeable.io
thomas@nodeable.io

https://nodeable.io