





# BOOST YOUR PRODUCTIVITY

BY ENGINEERING YOUR ENGINEERING TOOLS!



Guus de Wit  
@Guus\_de\_Wit  
guus.de.wit@blue4it.nl

**blue4IT**



Martin Kanter  
@MartinKanters  
martinkanter.dev

**jpoint**



# CONTENTS

- **Why** – The Problem
- **What** – Our solution
- **How** – Technical deep dive
- **Start up** – Process
- **Conclusion**

WHY





# THE PROBLEM

- Many tools
- Context switching
- Slow...

## # Rabobank Engineering Tools (RET)

✓ 2 ^ v

RET is *the* utility for all Rabobank developers!

It allows you to interact easily with all tools you use from day to day. RET can be invoked from the command line, but also from integrations, such as Alfred. To ensure RET is easy to use, it has smart autocompletion and is context aware.

Directly navigate to one of your repositories?

Or create a PR from the terminal where you just pushed your latest changes?

Or directly query Splunk?

Use RET!

! [\[ret-showcase.gif\]](#)(./documentation/assets/ret-showcase.gif)

# Rabobank Engineering Tools (RET)

RET is *the* utility for all Rabobank developers! It allows you to interact easily with all tools you use from day to day, like Azure DevOps, Splunk, SignalFX and more. RET can be invoked from the command line, but also from integrations, such as Alfred (more integrations are planned). To ensure RET is easy to use, it has smart autocompletion and is context aware.

Directly navigate to one of your repositories? Or create a PR from the terminal where you just pushed your latest changes? Or directly query Splunk? Use RET!



Terminal: RunMarkdown × Local × Local (2) × + v

→ rabobank-engineering-tools git:(feature/awesome)



WHAT





# FIRST ATTEMPTS

- Bash scripts
- Aliases
- Alfred workflows (some Python, some JavaScript)

```
alias lt02="export CF_HOME=/tmp/t02 && export CF_PLUGIN_HOME=~ && cf login -a https://T02_CF_URL --sso -o ORG_NAME"
alias lp01="export CF_HOME=/tmp/p01 && export CF_PLUGIN_HOME=~ && cf login -a https://P01_CF_URL --sso -o ORG_NAME"
alias lp02="export CF_HOME=/tmp/p02 && export CF_PLUGIN_HOME=~ && cf login -a https://P02_CF_URL --sso -o ORG_NAME"
alias ld03="export CF_HOME=/tmp/d03 && export CF_PLUGIN_HOME=~ && cf login -a https://D03_CF_URL --sso -o ORG_NAME"
alias lp03="export CF_HOME=/tmp/p03 && export CF_PLUGIN_HOME=~ && cf login -a https://P03_CF_URL --sso -o ORG_NAME"
alias lp04="export CF_HOME=/tmp/p04 && export CF_PLUGIN_HOME=~ && cf login -a https://P04_CF_URL --sso -o ORG_NAME"
alias ld04="export CF_HOME=/tmp/d04 && export CF_PLUGIN_HOME=~ && cf login -a https://D04_CF_URL --sso -o ORG_NAME"
alias lp05="export CF_HOME=/tmp/p05 && export CF_PLUGIN_HOME=~ && cf login -a https://P05_CF_URL --sso -o ORG_NAME"
alias lp06="export CF_HOME=/tmp/p06 && export CF_PLUGIN_HOME=~ && cf login -a https://P06_CF_URL --sso -o ORG_NAME"
alias ld06="export CF_HOME=/tmp/d06 && export CF_PLUGIN_HOME=~ && cf login -a https://D06_CF_URL --sso -o ORG_NAME"
alias lp07="export CF_HOME=/tmp/p07 && export CF_PLUGIN_HOME=~ && cf login -a https://P07_CF_URL --sso -o ORG_NAME"
alias lp08="export CF_HOME=/tmp/p08 && export CF_PLUGIN_HOME=~ && cf login -a https://P08_CF_URL --sso -o ORG_NAME"
```



## # Rabobank Engineering Tools (RET)

✓ 2 ^ v

RET is the utility for all Rabobank developers!

It allows you to interact easily with all tools you use from day

RET can be invoked from the command line, but also from integrat

To ensure RET is easy to use, it has smart autocompletion and is

Directly navigate to one of your repositories?

Or create a PR from the terminal where you just pushed your late

Or directly query Splunk?

Use RET!

! [\[ret-showcase.gif\]\(../documentation/assets/ret-showcase.gif\)](#)

# Rabobank Engineering Tools (RET)

RET is *the* utility for all Rabobank developers! It allows you to interact easily with all tools you use from day to day, like Azure DevOps, Splunk, SignalFX and more. RET can be invoked from the command line, but also from integrations, such as Alfred (more integrations are planned). To ensure RET is easy to use, it has smart autocompletion and is context aware.

Directly navigate to one of your repositories? Or create a PR from the terminal where you just pushed your latest changes? Or directly query Splunk? Use RET!

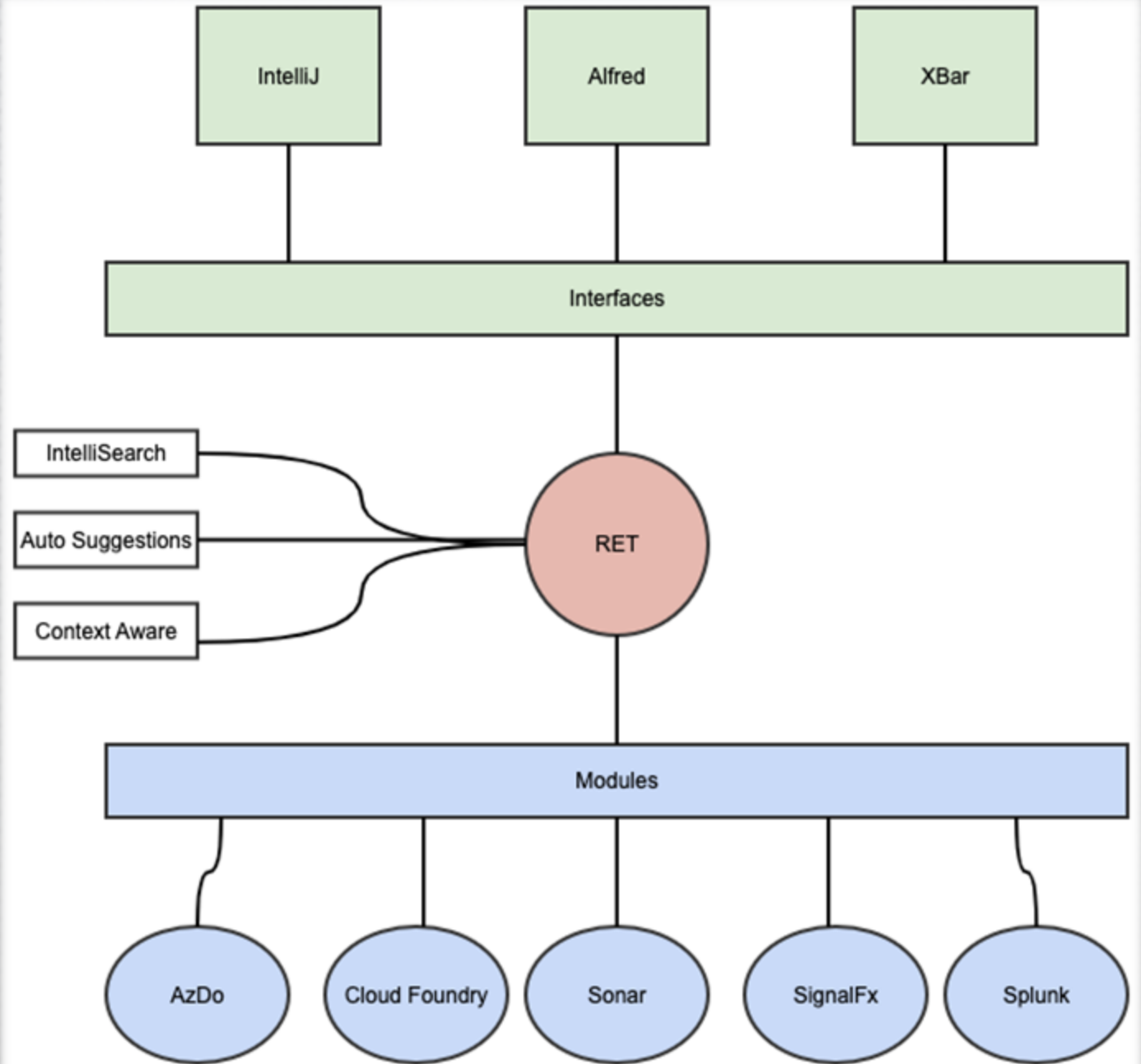


Terminal: RunMarkdown × Local × Local (2) × + v

→ rabobank-engineering-tools git:(feature/awesome)



One tool to rule  
them all





DEMO





HOW





# FRAMEWORKS AND TOOLS



# QUARKUS



# picocli



# GraalVM™







# QUARKUS

- Goal: “Make Java a leading platform in Kubernetes and serverless ...”
- Small artifacts, fast boot time, lower time-to-first request
- Tailored for GraalVM, HotSpot
  - Native compilation
- Dev goodness: hot-reload, continuous tests, opinionated
- Sponsored by RedHat





- Goal: “easiest way to create rich CLI applications on JVM”
- Annotation or programmable API
- Basic autocompletion baked in
- Easy way of testing
- GraalVM compatible
- Integrates well with Quarkus (dev mode, DI)

# GraalVM™

- High performant bytecode compiler
- Polyglot programming
- Native images
  - Lower memory footprint
  - Faster start up time



LET'S ADD STACKOVERFLOW!



# LIMITATIONS

- GRAALVM NOT CROSS COMPATIBLE
- PICOCLI AUTOCOMPLETION NOT DYNAMIC
- NOT BEST SUITED FOR PLUGIN ARCHITECTURE



START UP





# WE CONSIDERED IT AS A STARTUP

- Had an idea and developing a vision
- Experimenting in “own” time
- Eating our own dogfood
- Pitching the idea
- Writing good docs and easy installation
- Asking beta users outside of our team
- Releasing it into the wild



# GETTING STARTED

- Create a repository and share existing things
  - Scripts
  - Aliases
  - Alfred workflows
  - Postman collections
  - Bookmarks
  - Tutorials
  - Common documentation

# NEXT STEPS

- Fix biggest pain points
- Let colleagues contribute
- Professionalize
- Measure
- Pitch it



CONCLUSION



# KEY TAKEAWAYS

- Invest in engineering tools
- Make it for everyone
- Start small, promote and distribute!



# THANK YOU!



Guus de Wit  
@Guus\_de\_Wit  
guus.de.wit@blue4it.nl

**blue4IT**



Martin Kanter  
@MartinKanter  
martinkanter.dev

**jpoint**