



CONNECTING  
**THE WORLD**

The logo features the text 'NF' stacked above '23' in a large, white, sans-serif font. This text is centered over a dark blue, pixelated globe. The globe is enclosed within a light blue circular border. The entire graphic is set against a dark blue background with a subtle network pattern of lines and dots.

NF  
23

CONNECTING  
THE WORLD

# CI/CD using TeamCity

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VayanData*



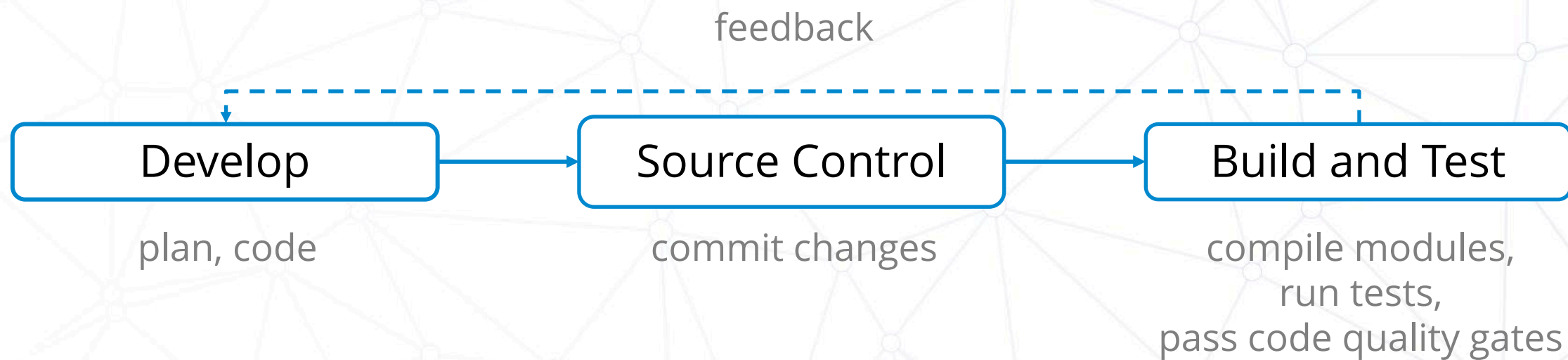
# CI/CD

## What is Continuous Integration/Delivery (CI/CD)?

hello

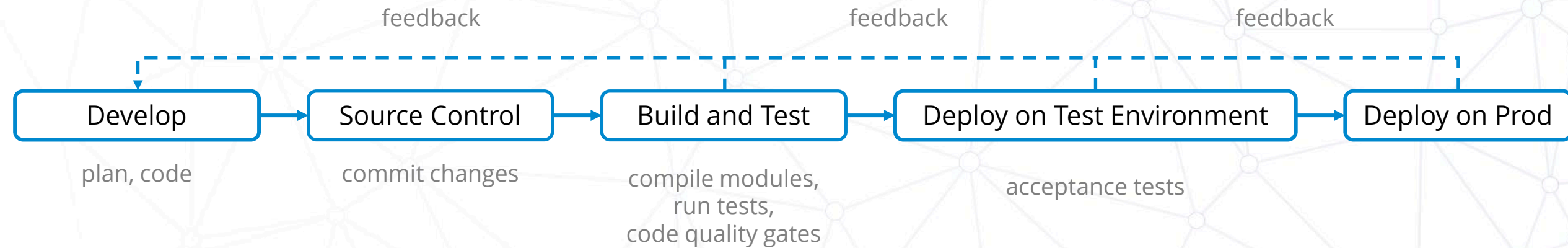
# What is Continuous Integration/Delivery?

## Continuous Integration



# What is Continuous Integration/Delivery?

## Continuous Delivery



# CI/CD

## What are the Benefits and Challenges?

hello





# What are the Benefits?

- Better code quality
  - Rapid feedback
  - Faster bug fixes
  - Measurable progress
  - Focus on what matters
- Faster time to market
  - Reduced risk
  - Improved collaboration



# What are the Challenges?

«Testing is doubting!»

«It works on my machine!»

- Setup

- Implement pipelines
- Configurations

- CI/CD requires good habits

- Write tests
- Continuous monitoring
- Do not skip the process

«If you comment your tests, they don't fail anymore»

«We need new modules ASAP»



# CI/CD

## Our Implementation using TeamCity

hello



# A Bit of Context

## ACTIVE LINKSPER

50+ modules

10+ modules



niagara<sup>4</sup>

# A Bit of Context

Hello  
World



v0.6  
v0.7  
v0.8  
v0.9  
v1.0



Obfuscation

Signing

Versioning

Delivering



# TeamCity

btibCore ☆

<Active branches> ▾

Configure favorites...

Overview

Investigations

Change Log

Statistics

Current Problems

Muted Problems

Build Chains

Flaky Tests 0

Builds

Trends

Collapse All

AutoBuild

Run

...

...

#1303

refs/pull/346/merge

✓ Success

11 2 changes ▾

TEAMCITY-WIN-AGENT

about 19 hours ago 9m 46s

...

#1302

refs/pull/345/merge

✓ Success

CB 2 changes ▾

TEAMCITY-WIN-AGENT

1 day ago 6m 37s

...

#1301

refs/heads/develop

✓ Success

TE teamcity: 3 ▾

TEAMCITY-WIN-AGENT

2 days ago 3m 22s

...

#541

refs/pull/121/merge

✓ Success

10 4 changes ▾

TEAMCITY-WIN-AGENT

about 2 years ago 5m 46s

...

#418

refs/pull/92/merge

✓ Success

38 2 changes ▾

TEAMCITY-WIN-AGENT

over 2 years ago 4m 40s

...

#340

refs/pull/61/merge

✓ Success

10 2 changes ▾

teamcity-win-agent

over 2 years ago 2m 58s

...

BuildProd

Run

...

...

#879

refs/heads/develop

✓ Success

TE 5 changes ▾

TEAMCITY-WIN-AGENT

4 days ago 6m 49s

...

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TRIDIUM

# Triggers

«Before becoming a devops, only the QA and the customers annoyed me, now they all do»



Developer

CI

Pull Request



Quality Assurance

CD

Weekly

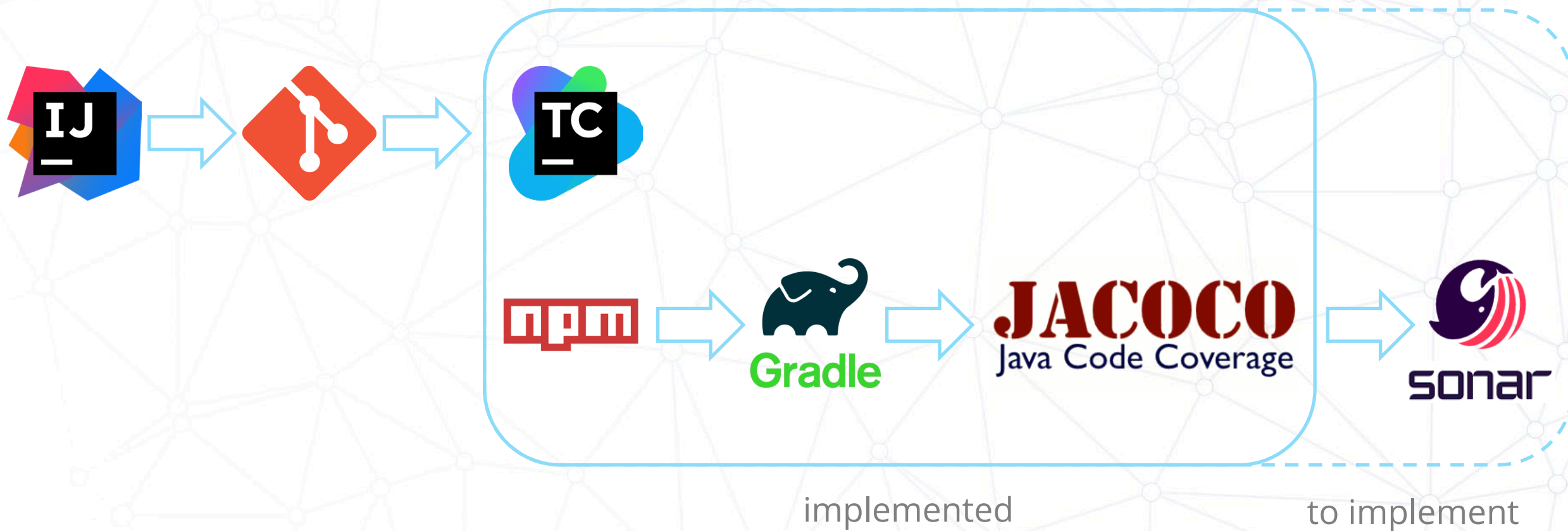


Customers

CD

Release, Hotfix

# CI Build Steps





# CI Build Steps

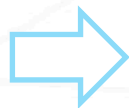
Build Step	Parameters Description
1. Npm Run Build	Command Line Custom script: if exist *-ux ( (and 4 more lines) Execute: If all previous steps finished successfully
2. Gradle Build	Gradle Gradle tasks: jar Use wrapper script: yes Execute: If all previous steps finished successfully
3. JaCoCo Test	Gradle Gradle tasks: jacocoTest Use wrapper script: yes Execute: If all previous steps finished successfully
4. Teamcity Coverage Report	Gradle Gradle tasks: teamcityJacocoReport Use wrapper script: yes Execute: If all previous steps finished successfully

# CD Build Steps

Release  
Weekly  
Hotfix






CI



implemented

to implement

# CD Build Steps

Build Step	Parameters Description
...	...
5. Allatori	<div>Gradle</div> <div>Gradle tasks: allatori</div> <div>Use wrapper script: yes</div> <div>Execute: If all previous steps finished successfully</div> <div>Edit </div>
6. KeySign	<div>Gradle</div> <div>Gradle tasks: keySign</div> <div>Use wrapper script: yes</div> <div>Execute: If all previous steps finished successfully</div> <div>Edit </div>
7. DeployToUnicorns	<div>SMB Upload</div> <div>Target SMB share: \\btib-dc2012\developpement\Modules\UNICORNS\N4\TC\%modulesDestination%</div> <div>Execute: If all previous steps finished successfully</div> <div>Edit </div>





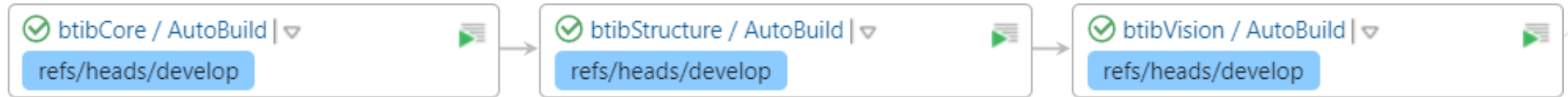
# Gradle Scripts

«Implementing this step will at least take 5 points in my Sprint!»

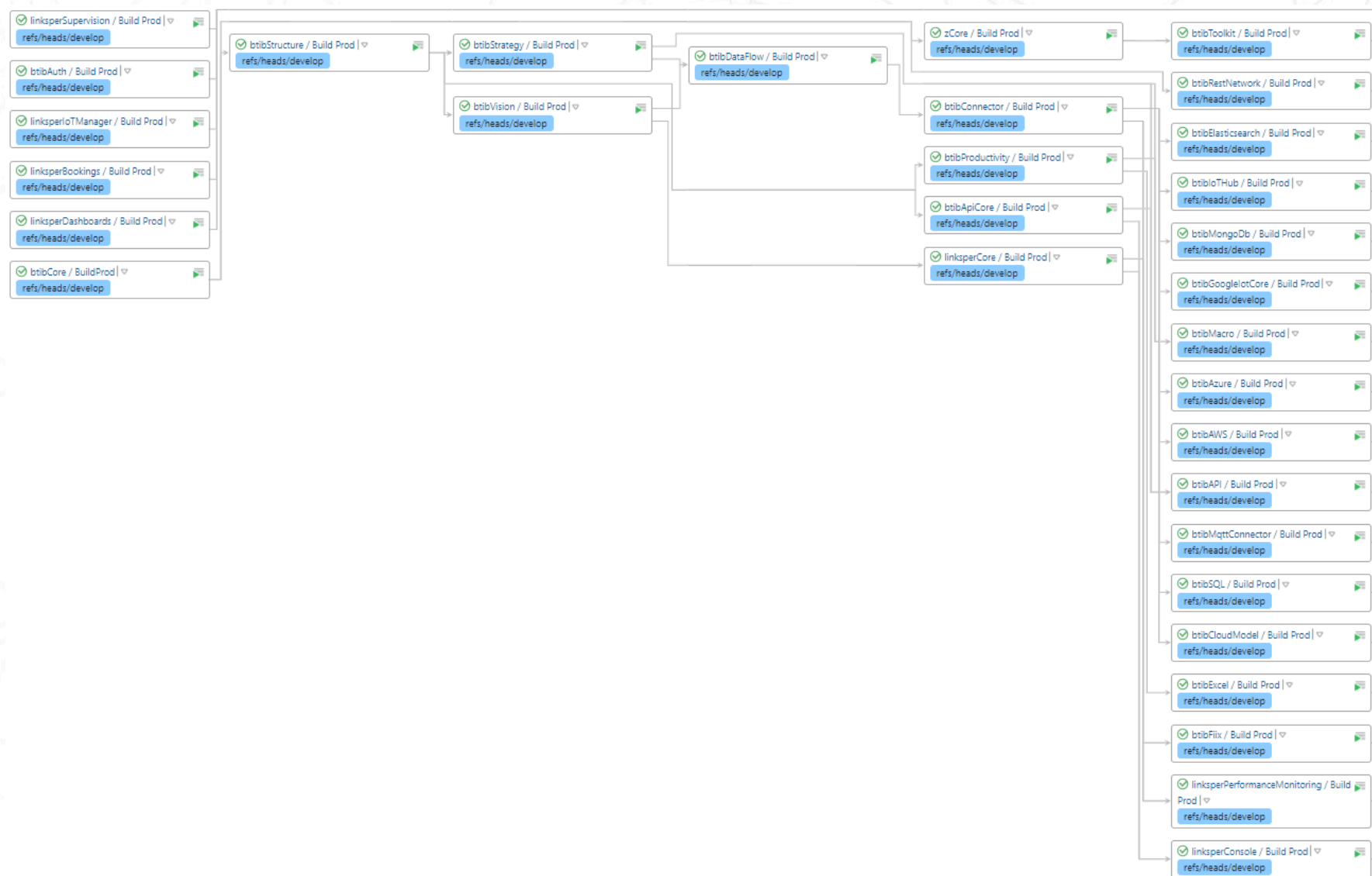
- JaCoCo plugin to run tests
- Allotory plugin to obfuscate
- Ant plugin to sign
- Upgrade version with a bit of code

«ChatGPT, create a gradle task allowing to sign a project»

# Build Chain



# Build Chain





# Dependencies

<input type="checkbox"/> Depends On	Dependency Options
<input type="checkbox"/> <b>btibCore / BuildProd</b>	<div>New build will use the same revisions as in the dependency</div> <div>Do not run new build if there is a suitable one</div> <div>Only use successful builds from suitable ones</div> <div>Run build on the same agent</div> <div>On failed dependency: mark build as failed to start</div> <div>On failed to start/canceled dependency: mark build as failed to start</div> <div>Edit Delete</div>
<input type="checkbox"/> <b>btibStructure / Build Prod</b>	<div>New build will use the same revisions as in the dependency</div> <div>Do not run new build if there is a suitable one</div> <div>Only use successful builds from suitable ones</div> <div>Run build on the same agent</div> <div>On failed dependency: mark build as failed to start</div> <div>On failed to start/canceled dependency: mark build as failed to start</div> <div>Edit Delete</div>



# CI/CD

Questions?

Come to see us at booth E9!



V A Y A N D A T A

hello

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