

DevOps integration in JAC business processes

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Outline

- Recent failures
- What is DevOps
- How it should help us
- Feedback loops
- Continuous Testing
- Conclusion

Recent failures

- The software of all conveyor lines contains a critical error, which in our current conditions will take about half of the year of work to fix.
- Two development teams do not have working time to communicate.
- Transfer of the latest developments is not covered in any way in the development plans.
- All changes are sent to the test environment through two more commands for making changes and technical support.
- Integration takes at best a month.

Recent failures

- All failures can be described by measure MTTD (Mean Time To Deploy).
- We need to change and evolve, accelerate.
- Recent developments in software development give us a **DevOps** approach.

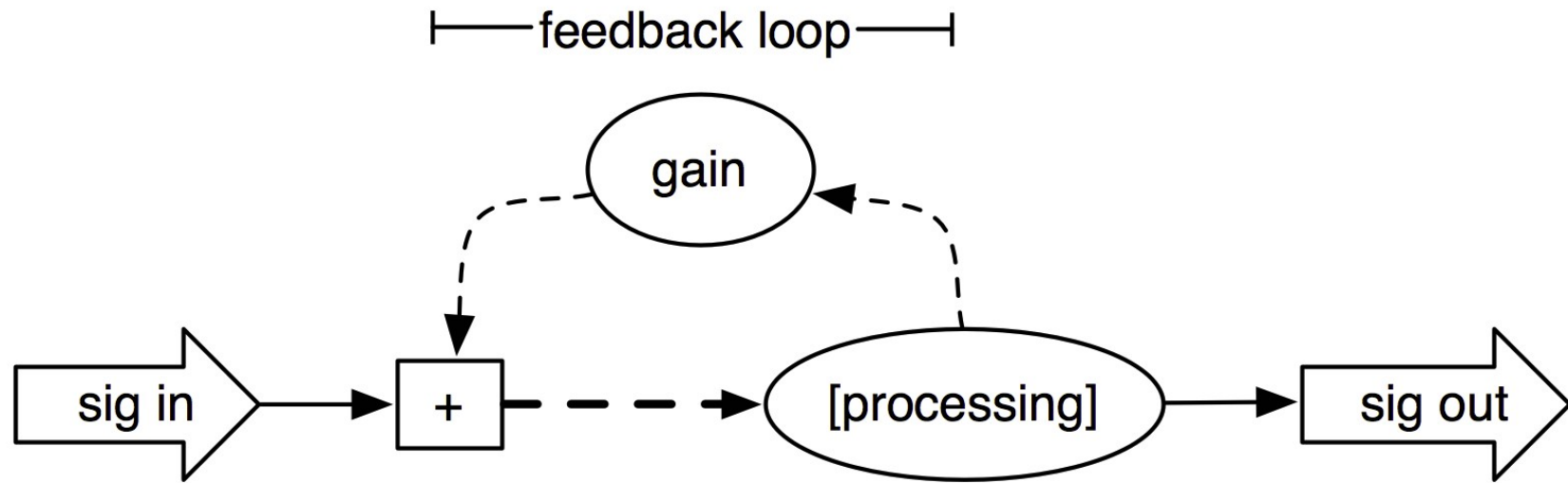
What is DevOps

- DevOps is about people.
- The DevOps approach is to organize a common space for employees, within which they create a single whole and care about the result (the work is work).
- This will allow us to focus on outcomes rather than outputs.
- There are **three ways** in DevOps for every single worker:
 - systems thinking
 - amplifying feedback loops
 - a culture of constant experimentation and improvement

How it should help us

- The principle of **improvement Kata** assumes confident knowledge of the entire current state.
- At the moment, we have the problem of a huge piece of software that has not yet been tested.
- Our goal for further movement may be to reduce this volume by half
- This requires special automation tools and the provision of separate test space.

Feedback loops



Feedback loops

- In any technical system, one way or another, there is a process of returning information to the one that sends it.
- The only question is how quickly this happens.
- We should perform frequent self-tests to identify potential errors before they become critical.
- To achieve this, we need to do more automation of testing and module integration processes.

Continuous Testing

- We need to develop an automatic testing system.
- This will allow us to think first about cross-interaction within a common goal.
- For example, if we had tests for the conveyor section and the engine section, we would not have problems with General integration in principle.
- Test automation also includes delivery automation, which will help us in the next stages of DevOps implementation.

Conclusion

- We need to start small by applying the principles described to the conveyor and engine sections. They caused recent integration problems.
- You need to take MTTD (Mean Time To Deploy) as the main metric.
- Our focus should be on automating the testing and integration process.
- You should introduce DevOps as a development culture, not as a private tool.

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