# • cyclopt

Your software,
Our priority.

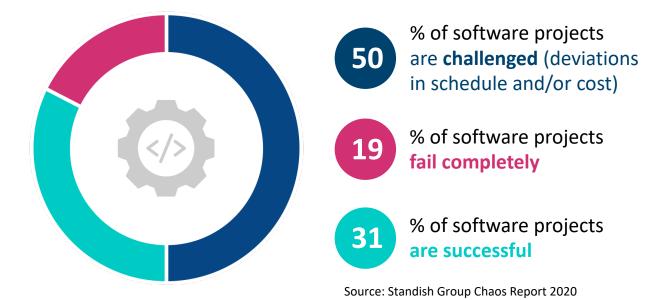


Develop Software the CYCLOPT Way

COMPANY PROFILE

## **PAINPOINT**

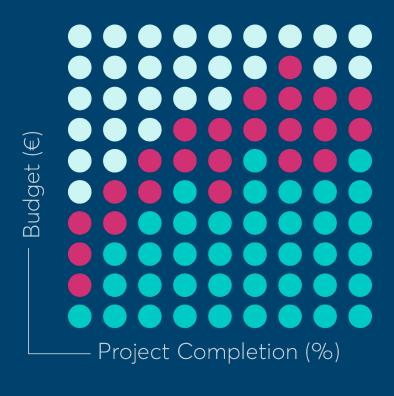
The Software Engineering Lifecycle is **challenging** and **complex**, thus Software projects become **difficult to manage** under a **certain timeline** and **budget**.



Adding more features and Reducing Time-To-Market Increases Technical Debt (overlooking Quality Control)

Increased Technical Debt means **More Development** and **Maintenance Costs.** 

- According to CISQ Consortium for Information & Software Quality, only in the US were spent more than **500bn \$/year in maintenance costs due to poor quality**
- SaaS ecosystem has value more than 150bn \$





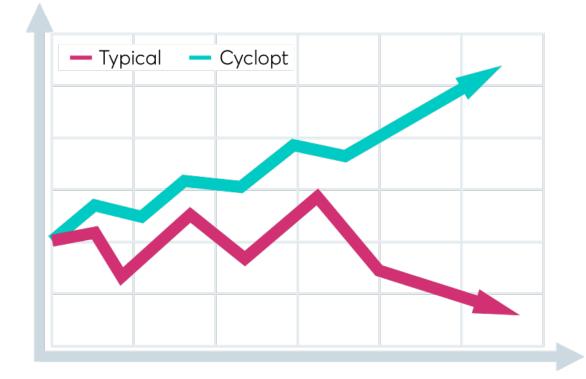
The bitter truth in Software Development is that... "expectation is pretty far away from reality, ending up in severe Plan and Budget deviations"

## **OUR SOLUTION**

We Offer An Al-Driven Cloud Platform for

**Effective Management of the Software Engineering Lifecycle** 

- for DEV individuals/Teams/Units/SW consortiums
- for Developing SW the optimal way



Minimize Software Development and Maintenance Costs

#### TYPICAL PROBLEMS

- Project deviates from original plan
- **Quality** aspects are inevitably neglected
- X Valuable time and money are lost

#### **CYCLOPT OFFERINGS**

- Continuous Code Quality Monitoring
- Early Risk Identification
- Data-Driven Recommendations based on Lifecycle Analytics
- Effective Project and Team Management
- Facilitate new members on-boarding

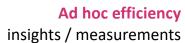
## **HOW IT SHOULD BE**

METHODOLOGY – The Right Way

#### The typical way

Multiple tools, multiple dashboards with different metrics

Ad hoc risk and mitigation planning, post mortem issue identification



Team efficiency and measured on a he-said-

task allocation she-said basis

> Lost time and effort

## The Cyclopt way

**One-stop dashboard** of projects' status and hierarchical structure of metrics

Early Risk identification, critical issues and recommendations on how to resolve them

Quantified speed and efficiency using quality-oriented metrics

**Actual knowledge** of team performance and assessment of assignment outcomes

**Full monitoring** w.r.t. time and budget

#### **Increase** your productivity

Measurable improvements on project efficiency and quality

#### **Keep control**

of your projects Either developed in house or via outsourcing (collaboration)



### Manage remote teams

effectively. Know the team's skills and potential

#### **Deploy**

in a Fast & Easy Manner

Main DevOps Integrations available

- Integration of EngOps with Software Quality
- Agile project management with workflow unchanged. Your model, your way, your insights!
- Every measurement is evaluated against relative benchmark datasets
- The quality model adheres to ISO 25010 and is customer & domain specific. One product is bound in performance, another in maintainability
- Simultaneous Evaluation and Quality Analysis of Source Code as produced

DIFFERENTIATION

## **PLATFORM TOOLS**

Presents to the team the knowledge they need in-time and in-context





Team Management







**PLATFORM FEATURES** 

 Data-driven Quality Evaluation Repository Name Commit: b1466cb Branch master OVERVIEW METRICS VIOLATIONS FILES DUPLICATES COMPARE Latest Analysis: 2 years ago Ê Overall Project Rating Evaluation of **ISO 25010** quality characteristics in a simple axis! Maintainability Readability Reusability Security 12461 13456 79 8% TOTAL LOGICAL LOC ANALYZED TOTAL PHYSICAL LOC ANALYZED NUMBER OF FILES DUPLICATE CODE Position Literals First In Comparisons f Else Stmts Must Use Braces Loose Coupling 117.31 1.61 100 92.34 Position literals first in comparisons, if the If Else Stmts Must Use Braces The use of implementation types (i.e. second argument is null then HashSet) as object references limits your MAINTAINABILITY INDEX CYCLOMATIC COMPLEXITY TOTAL NUMBER OF VIOLATIONS CODE EFFORT (DAYS) Possible fixes found 14 times in 5 files NullPointerExceptions can be avoided, ability to use alternate implementations they will just return false in the future as requirements change Whenever available, referencing objects Possible fixes found 8 times in 2 files by their interface types (i.e, Set) provides much more flexibility Possible fixes found 6 times in 4 files A Critical Best Practices Minor CS Code Style Major Best Practices Easily detect critical and major issues Suspicious Constant Field Name Variable Naming Conventions f Stmts Must Use Braces and get recommendations Final variables should be fully capitalized If Stmts Must Use Braces Field names using all uppercase characters - Sun s Java naming and non-final variables should not include for fixing them! Possible fixes found 5 times in 4 files conventions indicating constants - should underscores be declared as final Possible fixes found 2 times in 1 file Possible fixes found 2 times in 1 file Minor CS Code Style Minor CS Code Style Minor

• Continuous Quality Monitoring Demo JavaScript Repository Commit: da0d402 Branch master DUPLICATES COMPARE VIOLATIONS FILES Latest Analysis: 8 days ago → da581fsa62 Compare Quality of Commits da0d402d4a Commit Comparison Metrics Comparison 2<sup>nd</sup> commit 1st commit Difference **Compare** the quality characteristics Hash da0d40 da581f across commits 24 Sep 21, 12:12 pm Authored at a day 589 Lines of Code 583 +4% 77% 80% Overall Quality Maintainability 56% 61% Security 100% Readability 68% Message Author Quality Characteristics Violations +3% 90% Reusability Refactoring B<sup>-</sup> 15 cyclopt Merging and fixing test mocks cyclopt 23 cyclopt -5.17% -15.94% Debug authentication volution of Quality and Lines of Code Fix error reporting Total Quality **Keep track** of the quality progress of your project over time

• Measure Project Velocity

Find out what stages of your development are the most critical time-wise!

See the **progress** of your team's velocity in time!

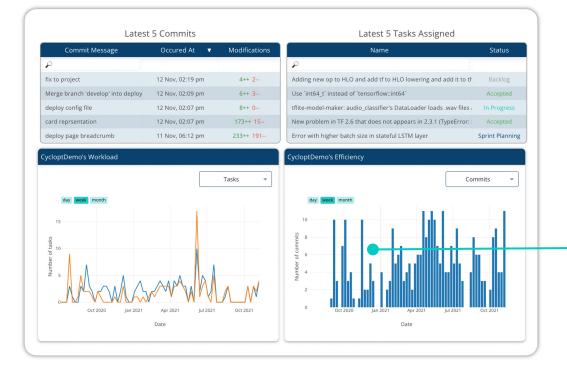


• Task management made easy



Know your team

Keep track of **the workload** of your team!





Find out information about the **efficiency** of each team member



Find out more about us in our website <a href="https://www.cyclopt.com/">https://www.cyclopt.com/</a>

Drop us an email at <a href="mailto:info@cyclopt.com">info@cyclopt.com</a>

And feel free to follow us @cyclopt to get our latest news:





