

# Metrics



# Metrics

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**We all work over  
products or projects.**

**We all want to be sure  
things work properly.**

## To achieve that:

- We plan
- We test
- We automate

**We change code.**

**We don't want to stop  
growth.**

**So we can't reject  
changes in the code.**



**Changes to the code  
lead to changes in  
software behaviour.**

**How to detect  
behaviour changes in  
growing, complex and  
constantly changing  
software?**

**Metrics should help us!**

**“Metric is a measure for  
quantitatively assessing,  
controlling or selecting process or  
event”**

[https://en.wikipedia.org/wiki/Metric\\_\(unit\)](https://en.wikipedia.org/wiki/Metric_(unit))

**1. We all have been in  
no metrics at all  
situation.**

# **MVPs, Prototypes, Project based development**

**You change, you  
deploy, you hope.**

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**No metrics - no  
problems.**

**2. But it is easy to add  
at least some simple  
metrics.**

**Project/product is  
running for some time.**

**CPU, RAM, Network,  
Disk, Processes,  
Uptime, Swap**

**Behaviour change  
only as resource  
utilization.**

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**Some metrics - some  
answers.**

**3. Possibly we can add  
even better metrics.**



**HTTP Server, PHP  
processes, Storage or  
Database Metrics.**

# HTTP Server:

- **Active connections**
- **Connections per second**
- **Request per second**

# PHP:

- **Connections per second**
- **Processes (active, idle)**
- **OP Cache (if possible)**

# Mail agent:

- Messages per second
- Bytes per second
- Queue size

# Database specific metrics:

- Operations per second
- Slow query count
- Connections, traffic
- Query cache
- Table locks

# Redis:

- **Connections**
- **Commands per second**
- **Key count**
- **Key expiration**
- **Key hit/miss**

# Queues:

- **Message count**
- **Delayed messages**
- **Failed messages**

**Behaviour change on  
used software.**



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**Better metrics - better  
answers.**

**4. Add  
Framework/Tools  
Specific Metrics.**

**Request/Job  
processing metrics.**

**Behaviour change on  
concrete request or  
job.**

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**Even better metrics -  
even better answers.**

# 5. Functionality Related metrics.



**Gather metrics from  
different parts of  
functionality. Cover  
specific cases.**

**When it is safe to  
remove old  
code/service?**

**How long it takes to  
update product data  
from different  
supplier?**

**How many errors do  
we get when we use  
some external  
service?**

**Behaviour change on  
concrete functionality.**

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**Concrete metrics -  
Concrete answers.**

## **6. Business Related metrics.**



**Find Key Performance  
Indicators.**

**Build/add KPIs into  
Metrics.**

Learn how to **correlate**  
any **Other Metrics**  
change **with KPIs**  
change.

**Behaviour change on  
end user.**

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# **Super Metrics - Super Answers.**

**How should I start?**

**Talk** to people.



Focus on **problems.**

Don't miss **the**  
**moment.**

Eat elephant **bite by**  
**bite.**

**There is no silver  
bullet.**

# Discussion



**Practical Monitoring**

**Prometheus: Up & Running**

# Thanks!

