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# GrimoireLab & CROSSMINER

Two different philosophies to measure open source community health

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# Car, Bus, Train, or Plane?



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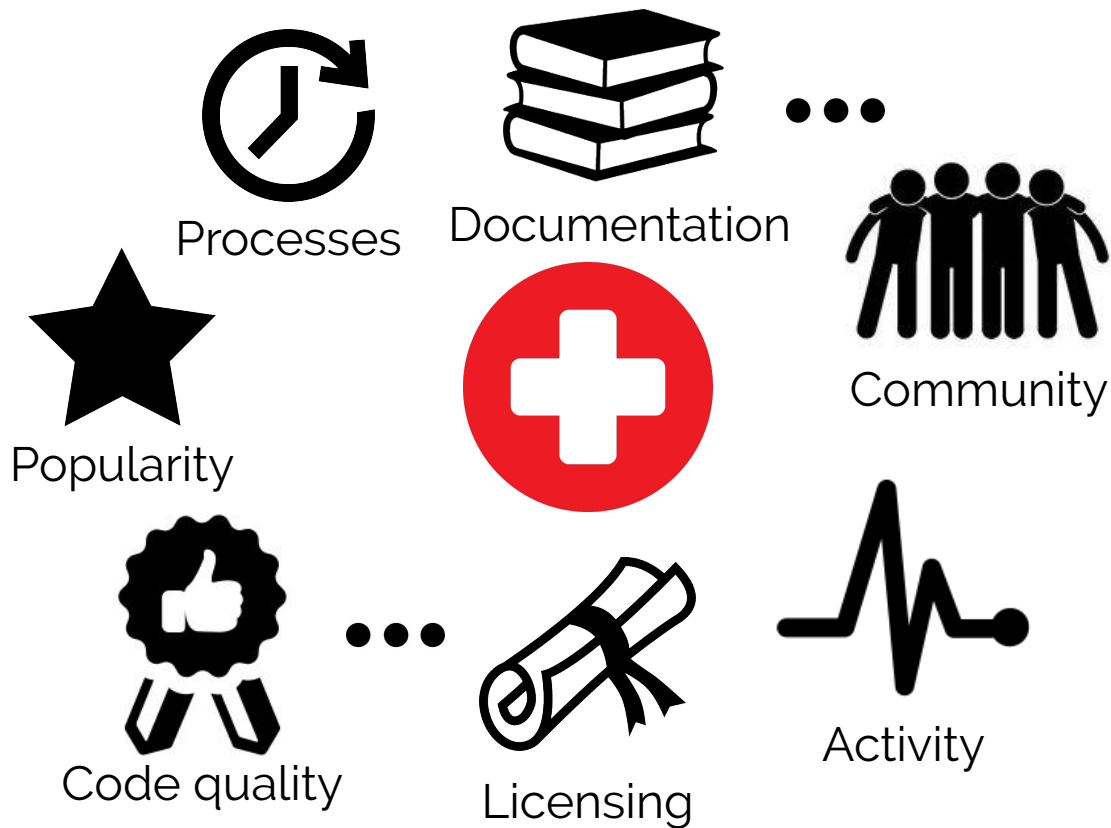
/the question



**How can we know if an open source  
community is healthy?**



/community health



/community tools



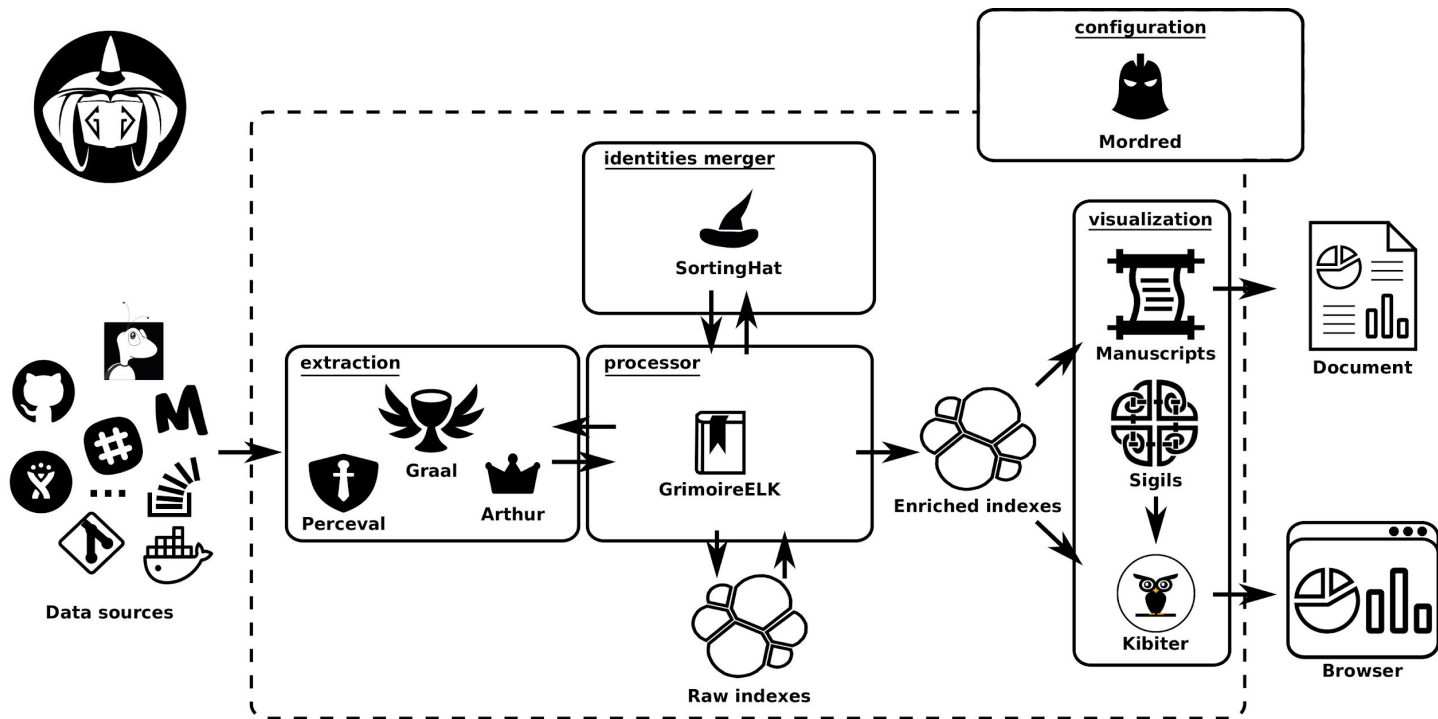
Bitergia

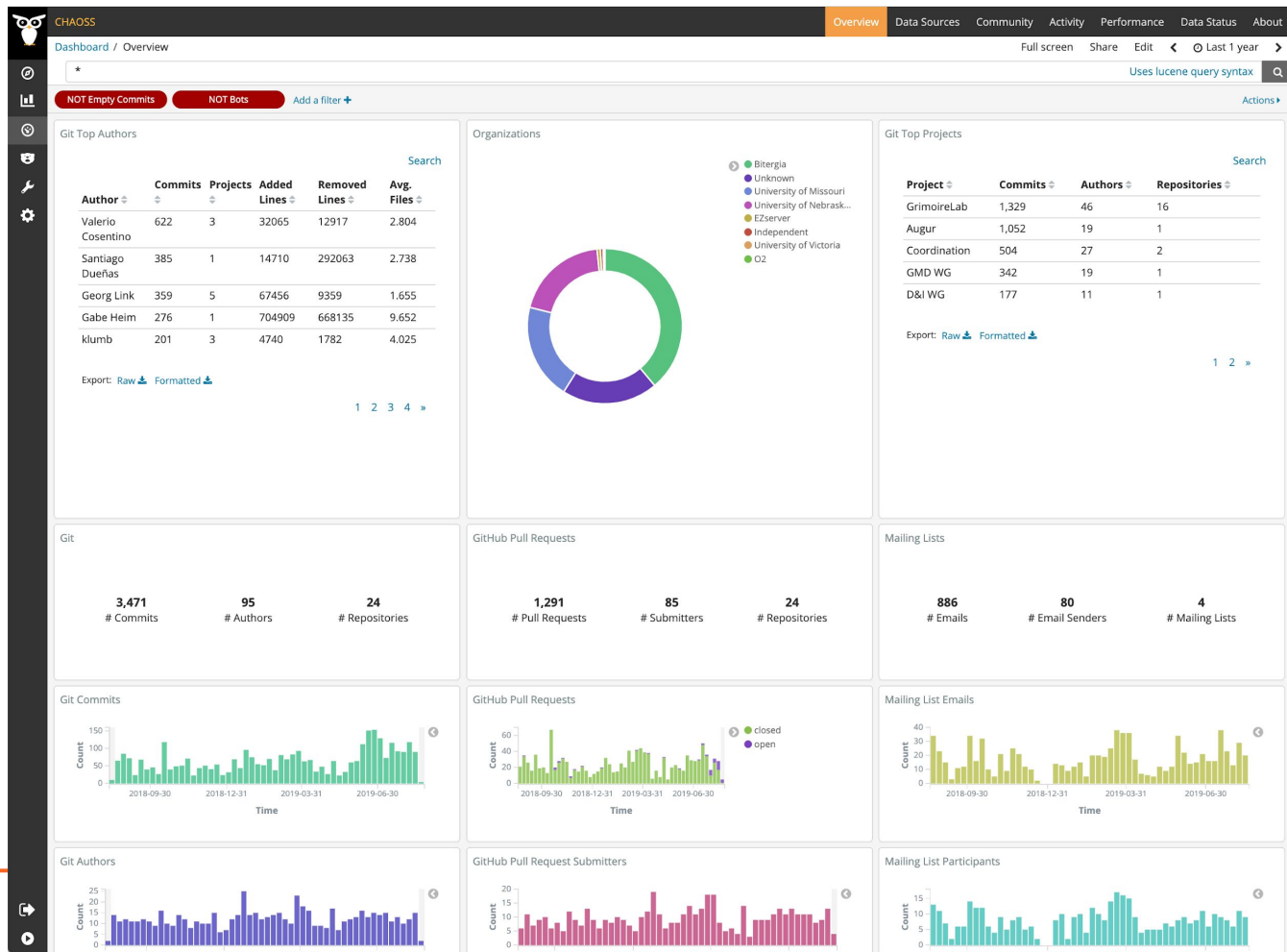
**Is a project community healthy?**



**Which is the healthiest projects to adopt?**







NOT Empty Commits NOT B

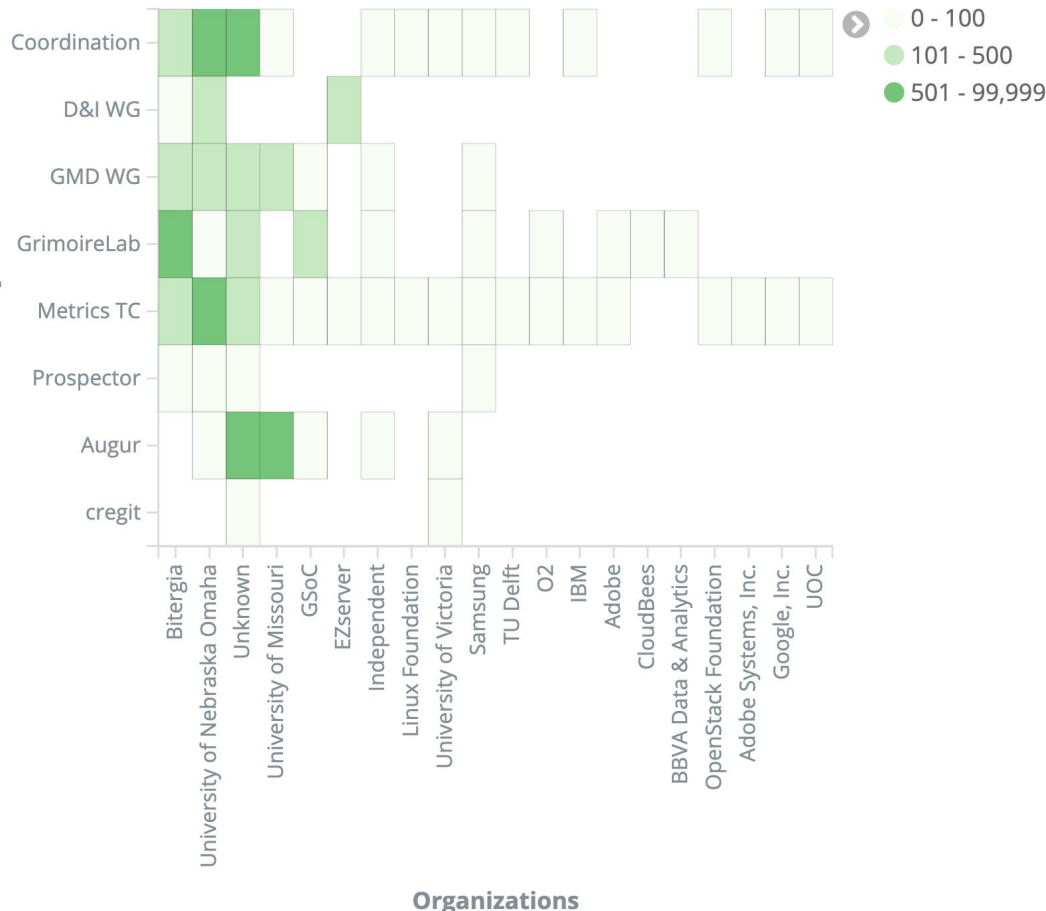
Git Top Authors

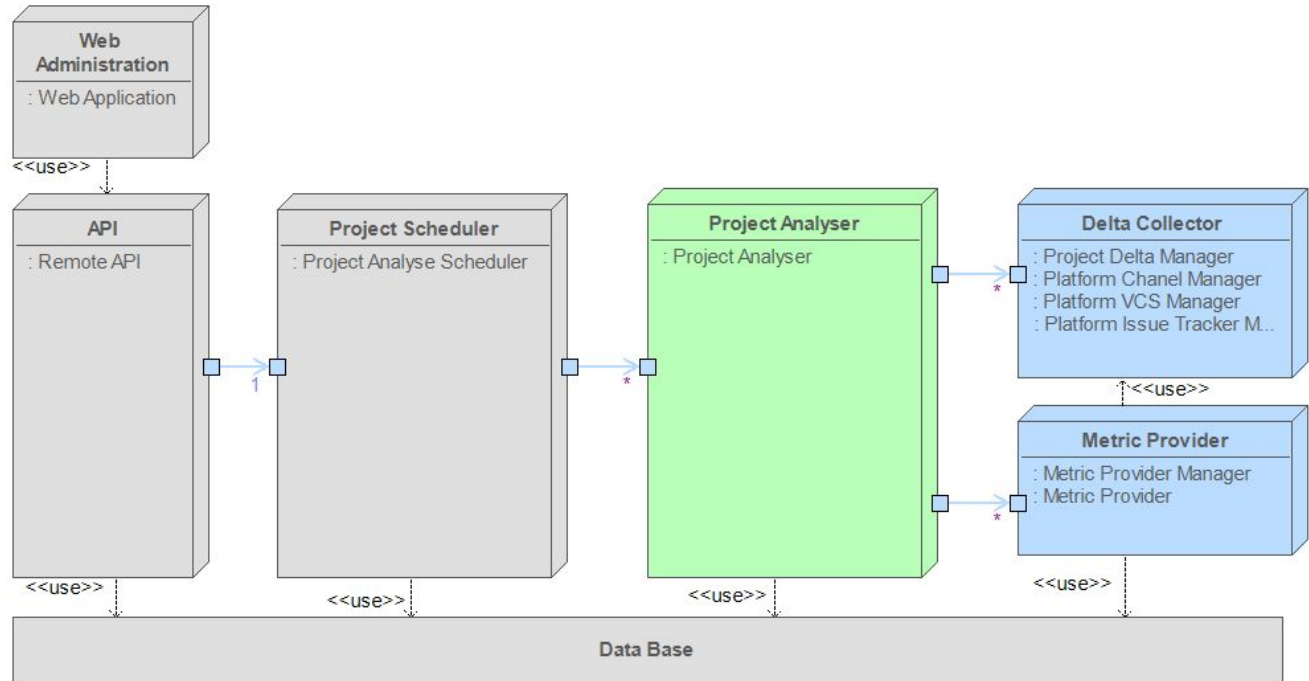
Commits Proje

## Git Top Authors

Author	Commits	Projects	Added Lines	Removed Lines	Avg. Files
Valerio Cosentino	622	3	32065	12917	2.804
Santiago Dueñas	385	1	14710	292063	2.738
Georg Link	359	5	67456	9359	1.655
Gabe Heim	276	1	704909	668135	9.652
klumb	201	3	4740	1782	4.025

## Projects

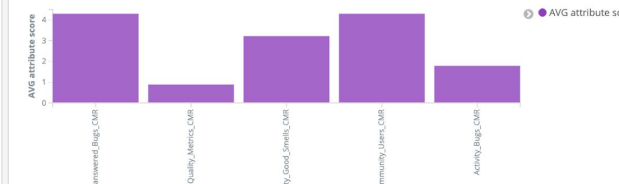
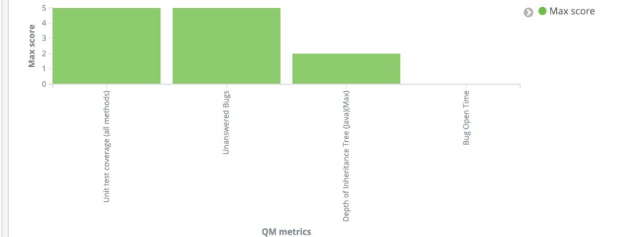




Project	Sum of scores
asm	21
scheduling	20
BonitaStudio	18
XWiki	17
docdokuipm	17
KnowageServer	16
Lutece	15
sat4j	15
spoon	13
clifflegacy	6

Metrics	BonitaStudio	KnowageServer	Lutece	XWiki	asm	clifflegacy	docdokuipm	sat4j	scheduling	spoon
Unanswered Bugs	5	5	5	5	5	5	5	5	5	5
Unit test coverage (all methods)	2	5	0	5	5	0	5	2	5	
Depth of Inheritance Tree (java)Max	1	0	2	2	1	0	0	1	1	
Bug Open Time	0		0	0	0	0	0	0	0	0

Attributes	spoon	scheduling	sat4j	docdokuipm	clifflegacy	asm	XWiki	Lutece	KnowageServer	BonitaStudio
Quality_Unanswered_Bugs_CMR	5	5	5	5	0	5	5	5	3	5
Community_Users_CMR	5	5	5	5	0	5	5	5	3	5
Activity_Bugs_CMR	1.5	2	1	1	2.5	2.5	0	1.5	5	2.5
Quality_Metrics_CMR		1	1	0	0	1	2	2	0	1
Quality_Good_Smells_CMR		5	2	5	0	5	5	0	5	2



### QM metrics per project comparison

Metrics	BonitaStudio	KnowageServer	Lutece	XWiki	asm	cliflegacy	docdokuplm
Unanswered Bugs	5	5	5	5	5	5	5
Unit test coverage (all methods)	2	5	0	5	5	0	5
Depth of Inheritance Tree (Java)(Max)	1	0	2	2	1	0	0
Bug Open Time	0		0	0	0	0	0

### QM goals project comparison

Goals	spoon	scheduling	sat4j	docdokuplm	cliflegacy	asm	XWiki	Lutece	KnowageServer	BonitaStudio
MRL_Quality	5	3.667	2.667	3.333	0	3.667	4	2.333	2.667	2.667
MRL_Community	5	5	5	5	0	5	5	5	3	5
MRL_Activity	1.5	2	1	1	2.5	2.5	0	1.5	5	2.5

QM attributes project com

Quality\_Unanswered\_Bug

Community\_User

Activity\_Bug

Quality\_Metric

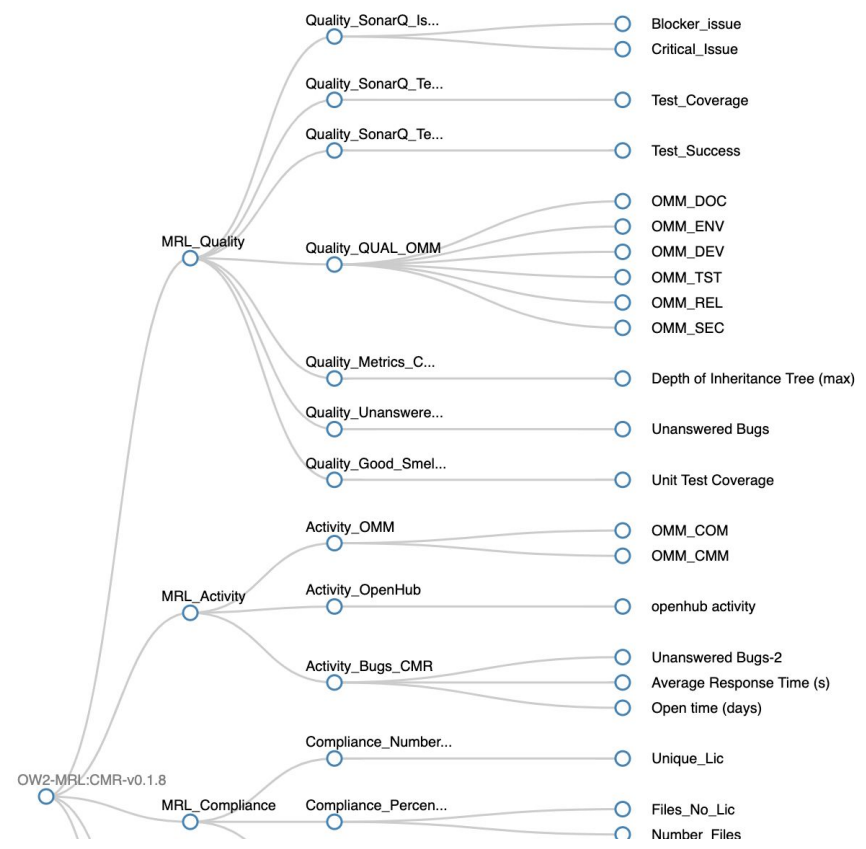
Quality\_Good\_Smell

Attributes

Login

Collapse





Select a quality model to show:

crossminer

OW2-MRL:CMR-v0.1.8

Quality Models: 2  
Attributes in selected model: 24  
Metrics in selected model: 29



- Community metrics
- Fine-grained data
- Reactive metric calculation
- Multi project aggregation



- Code quality metrics
- Coarse-grained data
- Pre-determined, daily metric calculation
- Mono project aggregation
- **Quality models**



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- **A quality model simplifies comparing many projects across different indicators of community health.**
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**Community  
Health**

**Has multiple meanings**

**Shapes the indicators and metrics**

**Influences technical implementations**

**Can be summarized by a quality model**

**Your reaction?**

**What philosophies have you seen?**

**CHAOSS metric standard across software?**

**Metric implementation transfer?**

**Re-use of data in different designs?**

# Thank you! Enjoy CHAOSScon!

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@CHAOSSproj  
@crossminer

*Thanks*

