



InnerSource Metrics: Exploring the Impact of Open-Source Principles on Internal Development

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Background and Motivation

InnerSource is the process of leveraging open source principles and processes to help develop and share software internally within an organization. The internal sharing of software across teams and centers allows developers to create systems more effectively and efficiently.

Such a claim however may be difficult to defend for various reasons:

- Just how much sharing of software is occurring?
- What is the impact?
- Should additional resources be given to increase the amount of projects available in InnerSource?

Objective and Approach

The end goal centered on gathering and displaying data- not qualitative information, but quantitative metrics which convey the usage of InnerSource. Additionally, it was imperative that the the whole process have a very small footprint- full-fledged systems requiring database setups were not desired.

With this in mind, GitLab was relied upon heavily as it can not only run scheduled jobs, but can provide statistics through its API while providing wiki pages that can act as an organized database for limited purposes.

Clone Metrics for Innersource Projects

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Group Name	Repository Name	Fetches in Last 30 Days	Fetches Since 2020-01-01
ansible	access-auth	4515	5021
ansible	ansible	4061	4562
ansible	ansible-container	0	0
ansible	ansible-playbook-examples	0	0

Impacts, Benefits, and Future Work

In the end, a scheduled task was configured within the InnerSource repository which, every night, retrieves a listing of all other repositories and utilizes the GitLab API to gather statistics on each, before updating a wiki page (seen above) with results. This methodology keeps metrics up-to-date, accurate, and requires very little upkeep or maintenance. Looking forward, this process could be expanded to gather more metrics, or do additional analysis dependent on what is needed.