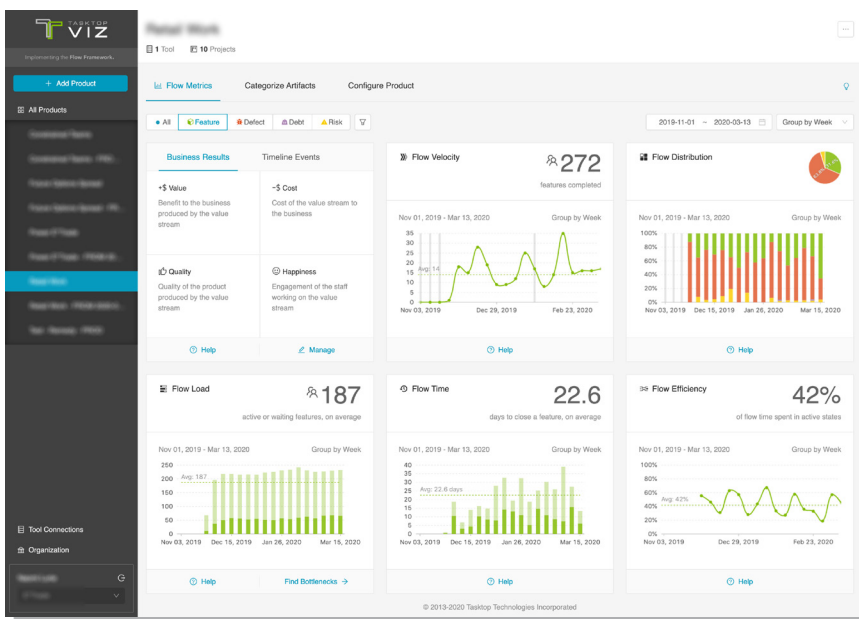


How Tasktop Viz revealed the painful legacy constraint crippling innovation in digital channels



HIGHLIGHTS

» Bottleneck exposed: Time-to-market is impacted by a legacy monolith component

» The price of tech debt is quantified: investment on digital channels cannot be monetized

+ \$ Better planning helps mitigate the constraint while the business invests in the system's bottleneck

THE PROBLEM

Major disruption requires rapid time-to-market to prevent mass exodus of customers

In this age of dramatically increasing competition, traditional businesses must become as productive as software startups and digital natives to survive.

Look no further than Robinhood, the online investment and trading unicorn, whose zero-commission business model disrupted the online brokerage industry in 2019.

One online investment giant turned to Tasktop Viz and the Flow Metrics to better understand where they could speed up and improve time-to-market, specifically for digital channels.

They sought to discover which investments in people, process and technology would help them go faster. And they wanted clear data visualizations to share with their leadership and peers to advocate for those investments.

“One of the reasons we brought this tool in is that we’d lost credibility... Not a lot of people want to put money into debt without seeing demonstrable improvements.”

— VP DevOps

THE SOLUTION

In November 2019, the enterprise began using Tasktop Viz to generate Flow Metrics from their development and delivery work, primarily managed in Atlassian Jira. They modeled two product value streams: one exclusively for the digital channels (web and mobile), and another for the digital channels inclusive of all their external dependencies.

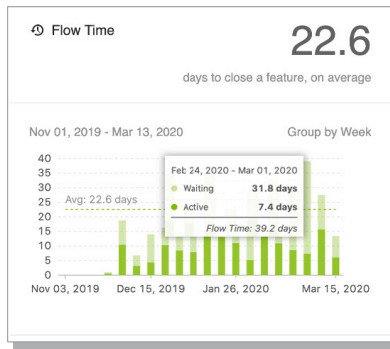


Figure A

Flow Time, Nov 2019–Mar 2020

The Discovery: A Legacy Monolith Is Crippling Innovation

Flow Time measures how long it takes to deliver new features, from the moment work is accepted by the value stream, until it is live in production. For digital channels, a story took an average of 22 days to complete. As of late, several took nearly 40 days, with work waiting nearly 80% of that duration (see Figure A). The question was... for what?

The value stream leaders used the Tasktop Viz **Bottleneck Finder** to pinpoint where work was piling up and slowing down. In the view inclusive of all their dependencies, the outlier was clear to the eye (see Figure B): 61 stories in the Dev Test Complete state were waiting a very long time to get into a QA test environment.



Figure B Bottleneck Finder reveals outlier

All these stories were identified in the Core Backend Services project, implicating a legacy component that most operations and transactions—even those on digital channels—were forced to go through. Due to high volumes of technical debt, Core Backend Services did not support self-service testing environments, hence delaying the release of new capabilities (even very small code changes).

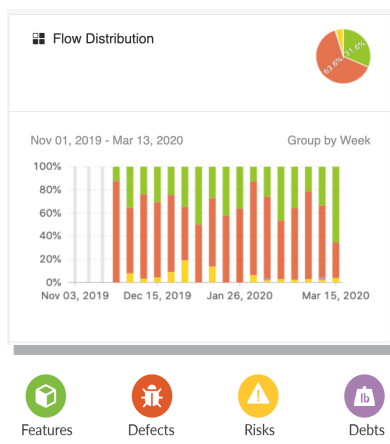


Figure C

Flow Distribution, Nov 2019–Mar 2020

The Flow Distribution chart (Figure C) reveals the extent of neglected tech debt, through the absence of the color purple. This chart, which captures the distribution of value delivered by flow item type—Features (green), Defects (red), Risks (yellow) and Debts (purple)—shows that debt has not been addressed in several months. This is likely a contributing factor to the high distribution of Defects.

Impact of learnings from Tasktop Viz:

- Product managers shared the data with their leadership to illustrate how their ability to compete in the market was being crippled by a painful legacy component. It was time to “slay the monolith” of Core Backend Services and they had data to form a business case.
- Investment in automated testing needs to grow in order to be ready for the next big wave of digital channel features.
- In the immediate term, planning better around the constraint could help shorten time-to-market for the new features. Product managers, dev leaders and QA leaders began to meet frequently to resolve conflicting priorities for the Core Backend Services team and ensure their QA was better prepared to test the new capabilities.