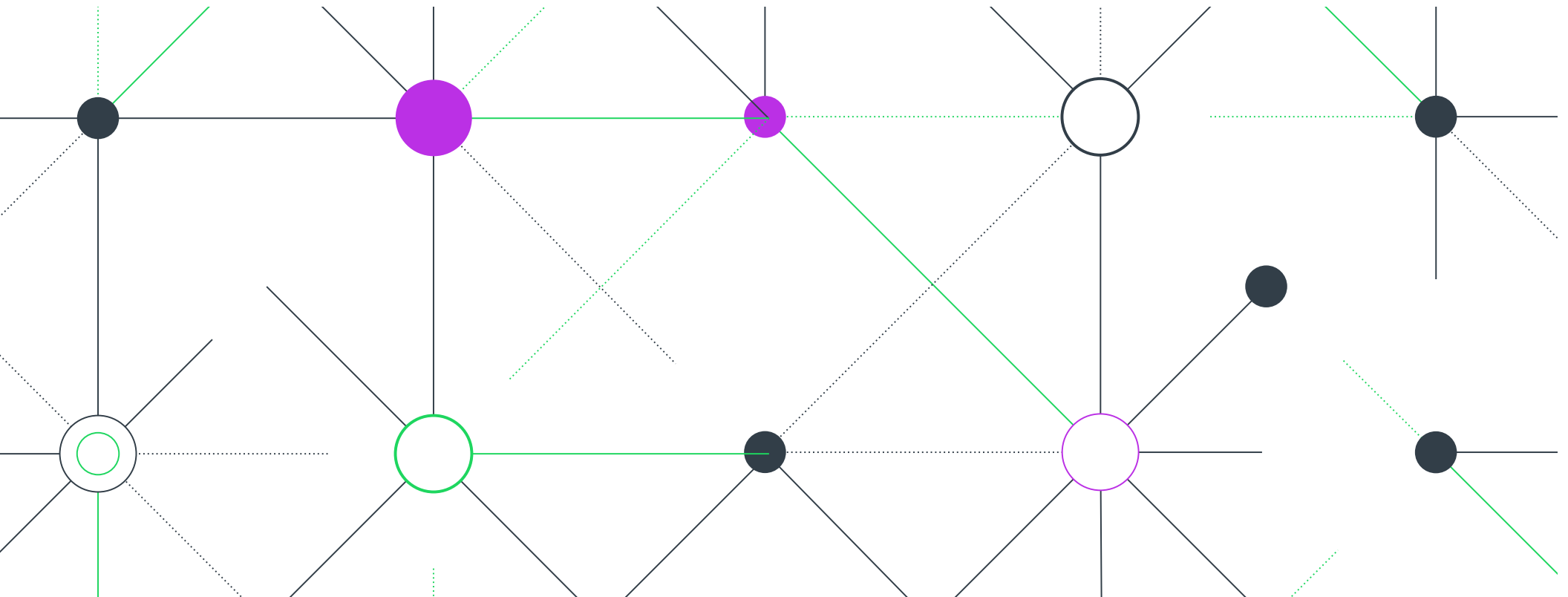


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# Take the Guesswork Out of Product Management

Building Better Applications with Software Analytics, Part 1





As a product management professional in the competitive software market, you must be able to anticipate ever-expanding customer expectations to deliver successful products. You also need to build products on time and within budget to be competitive.

Achieving these goals is easier said than done. So how will you get there? Software usage analytics, a technology experiencing rapid innovation, can help. According to Gartner, software usage analytics is “the detailed tracking and analysis of users’ interactions within a software application,” and will be an essential element of product strategy going forward.

As organizations put an increased focus on customer experience, product managers are looking to remove the guesswork and instead focus on understanding what drives customer success based on actual usage. Regardless of how your team currently utilizes information, software usage analytics can help enhance your ability to make important business decisions, based on hard data.

Research<sup>1</sup> shows that the average product manager will spend twice as much time with the development team as they do on strategic planning and market research. It’s essential, then, that time invested in analytics yields insights that makes time spent with development more efficient and effective.

INSIGHT



“Software usage analytics is the detailed tracking and analysis of users’ interactions within a software application. It is used by software providers and application developers to understand users’ behavior at various levels of aggregation—individual users, users within a customer account and users overall. It provides insights that are used to improve user experience, prioritize feature enhancement, measure user adoption, track compliance and provide real-time user help.”

—GARTNER<sup>2</sup>

# Informing Product Management Decisions



Whether you're delivering desktop, server, web, or mobile apps, using the right tool properly is essential to understanding software usage patterns and behavior. With that knowledge, you can then influence that behavior with in-application messaging to drive desired business outcomes.

According to Gartner, "by 2021, 75% of software providers will rely on insights from embedded software usage analytics to inform product management decisions and measure customer health<sup>3</sup>." Embedded software usage analytics will help product management teams gain insights beyond those available from current collection methods, like user interviews or surveys. Gartner's research indicates that engineering resources invested in deploying these tools will yield significant dividends across a product's lifetime.

## INSIGHT



*"By 2021, **75% of software providers** will rely on insights from embedded software usage analytics to inform product management decisions and measure customer health."*

HOW IT IS DONE

# Getting to Software Analytics Maturity

Whether your team is new to analytics or is already incorporating data into your decision-making process, software usage analytics can provide answers to customer-focused questions, from the simple to the complex.

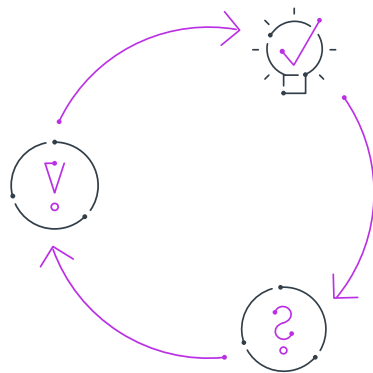
You can start by identifying the basic metrics that will allow you to answer the straightforward questions. As you gain confidence in your use of analytics, you can start to gather and analyze more complex data sets to answer more advanced questions. By choosing a software usage analytics tool that is capable of adapting to your data needs, you'll be able to leverage data, at whichever point your team finds itself on the analytics maturity spectrum.

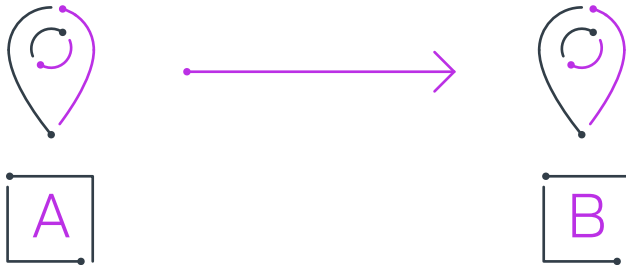


TESTIMONIAL

*"Reverera is helping us build a continuous customer feedback loop, and a more data-driven company."*

**JUAN RODRIGUEZ**  
—PRODUCT MANAGER, SOLIBRI





## Crawl

Product managers are responsible for strategy, roadmaps, and go-to-market plans for their products, they are not data scientists. Therefore, a significant challenge for them when they begin collecting data is having a lot of information, but feeling as though they lack time or resources to extract meaningful insights. Getting answers quickly to relatively straightforward questions such as “Why am I losing users during the trial?” is difficult, and can often seem impossible. However, capturing and analyzing basic metrics can support key data-driven roadmap decisions now, and build a foundation for more complex analytics moving forward.

**Your Company**

Channel

- #ProductManagement
- #ProductDevelopment
- #Marketing

Direct Messages

- Allison Smith
- John Johnson
- Dan Barrett

**Product Development**

☆ | 👤 23 |

**Keith**  
@channel: **What questions do we need to answer before updating the product roadmap?**

**Duncan**

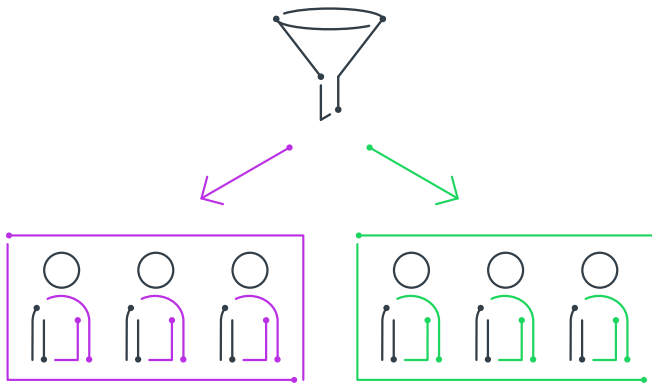
- Are my customers running the latest version of my application?
- How often do users engage with my application?

**Arielle**

- How long does it take for a prospect to evaluate my product?
- Which features are my customers using or ignoring?
- What devices, OS platforms, and hardware are customers using?

**INSIGHT**

*Product managers spend nearly **9x** more time sending email than on customer research.<sup>4</sup>*



## Walk

As you gain insight into basic software usage, you may see how non-actionable “vanity metrics” like download statistics can distract from asking deeper questions. With that realization, you can instead focus on tracking more relevant events, drilling into deeper filtering and segmentation, incorporating targeted in-app messaging to query users and influence their behavior, and beta testing with users whose usage fits testing parameters.

**Product Development** ☆ | 👤 23 |

**Keith**  
@channel: **Let's dig a little deeper for Sales and Marketing - what questions do we need to answer?**

**Toby**

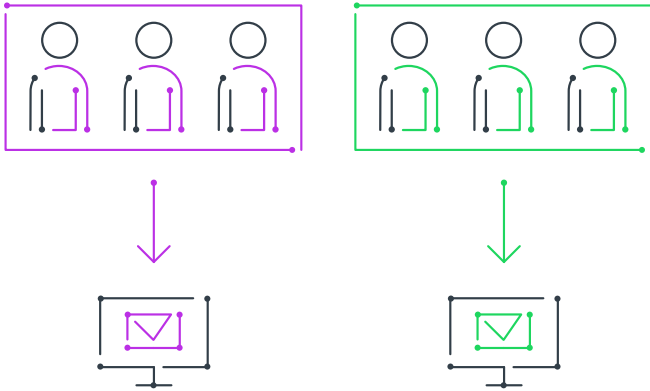
- Do customers upgrade to the latest version of my application at different rates based on geography?
- How does user engagement with my application differ between paid users and trial users?
- How long does it take for a trial user to evaluate my product and become paid?

**Janice**

- Which features are highest value, those that are used most by trial users that convert?
- What devices, configurations, OS, or hardware perform the best, and have the least amount of bugs and execute my application quickly?

### INSIGHT

*The ability to segment your users provides **deeper insight** into engagement and enables you to send **contextually relevant** in-application messages to the right users at the right time.*



## Run

As your analytics skills grow and your data collection matures, your product roadmap reflects a data-driven approach, and you're running before you realize. You can ask more complex questions, the answers to which paint a more complete user picture. You can marry data from different sources in your business intelligence solutions to understand not just who the customers are, and if they are using certain aspects of your software, but what external campaigns may have influenced them.

You can expand your use of in-app messaging and segmentation to drive adoption of valuable features that usage analytics have revealed to be underused. This level of insight can also drive education campaigns outside of the application (through email, for example) for user segments with less frequent engagement with the application.

**Your Company**

Channel

- #ProductManagement
- #ProductDevelopment
- #Marketing

Direct Messages

- Allison Smith
- John Johnson
- Dan Barrett

**Product Development**

☆ | 👤 23 |

**Keith**  
@channel: **We're making great strides in planning — what questions should we answer to get to the next level?**

**Paul**

- Based on user groups and usage patterns, is there an optimal pricing model for my product?
- When are the best times to send in-application messages to accelerate version adoption in laggard countries?
- How can I export my trial usage data to better upsell users through my third party marketing automation software?

**Clifford**

- What is the typical profile of users who churn from our evaluation product, based on computing environment?
- How do I predict the revenue impact of sunseting a particular feature set running on legacy technology?
- What do my power users look like and how can I collect valuable in-application feedback from them to improve my product?

### INSIGHT

*The key is to implement a software usage analytics tool that is **capable of growing** with you, adding layers as you need them.*

# Gain Actionable Intelligence with Software Analytics



A data-driven process helps product managers understand the actionable insights they need. With software analytics, you get the benefits of a continuous feedback loop, keeping products on the right track, and gaining additional data points with each new development cycle. These tools enable you to identify usage patterns and trends, so you know which user experience (UX) or user interface (UI) design improvements are most likely to increase conversion and adoption rates.

With the shift toward a more data-driven approach comes the ability to place a higher priority on the customer experience. According to Gartner, as software usage analytics matures to meet this demand, “incorporation of this new technology will become an essential element of your product strategy.”<sup>5</sup> Market trends toward usage-based pricing and the growth of SaaS, as well as the emergence of customer success organizations, are making adoption of these tools even more important, affording product managers and organizations to rapidly adopt the software analytics maturity model for their own development process.

## INSIGHT



*“Incorporation of [Software Usage Analytics] will become an essential element of your product strategy.”*

**GARTNER**

## ▶ USE CASES

# Answer the Questions You're Asking

In a big data world, product teams don't have time to waste searching for the important signals in the midst of incomplete, noisy or outright bad data. And once you've identified the outcomes you want to achieve, you need a solution that enables you to quickly analyze the points of interest, at the right time, to guide smart and timely decision making.

A software usage analytics tool can deliver the insights you need. The following use cases further demonstrate the value of a well-executed data analytics program.

## INSIGHT

*"If you do not know how to ask the right question, you discover nothing."*

**- W. EDWARDS DEMING**



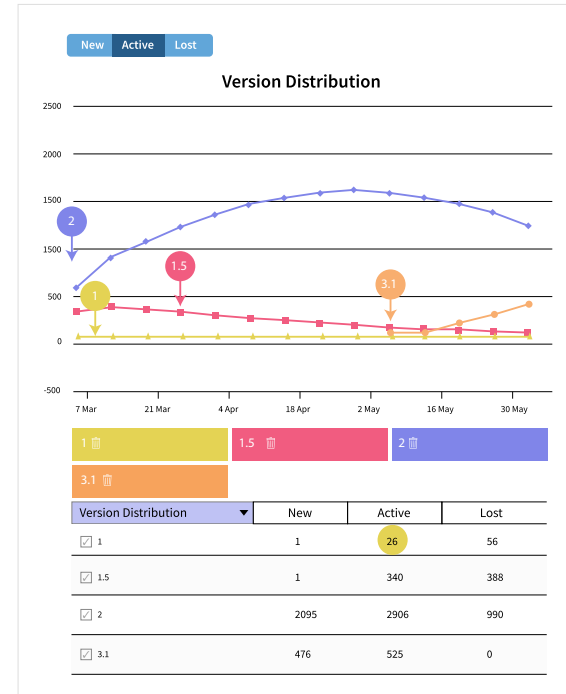
## JUMP TO PAGE

<b>How Do I Know When It's Okay to Drop Support for an Old Software Version?</b>	<b>10</b>
<b>How Do I Incorporate Voice of the Customer into Our Software Development Process?</b>	<b>11</b>
<b>How Do I Know When the Majority of Users Have the Computing Power to Take Advantage of New Resource-Intensive Features?</b>	<b>12</b>
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## How Do I Know When It's Okay to Drop Support for an Old Software Version?

The sales team at a productivity software firm was understandably concerned when product owners considered discontinuing support for a legacy version of their flagship product. While substantial engineering resources were required to maintain the product, the sales team's gut said that discontinuing support would alienate a large group of loyal customers. But what did the insights show?

The product management team's usage analytics showed how many of these were high value customers with an active maintenance agreement. When they learned that only a small number of users were impacted, the company offered them an attractive discount to upgrade to the latest version. The highly targeted upgrade offer was well received, and the firm confidently ended support for the legacy software. They could now reallocate engineering and customer support resources without worrying about frustrated customers.

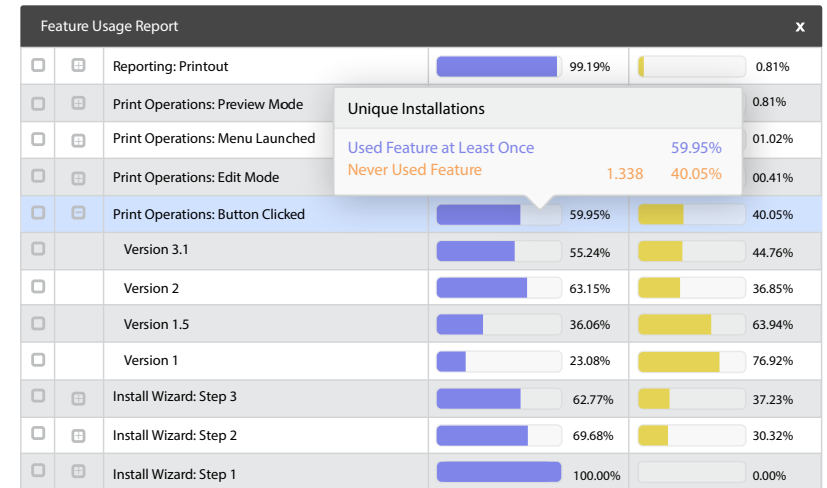


Using software usage analytics, the product management team was able to see which customers—and how many users—were still running the legacy version and how actively they were engaging with it.

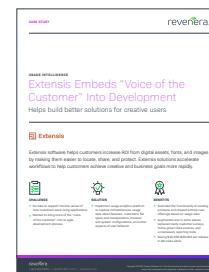
## How Do I Incorporate Voice of the Customer into Our Software Development Process?

A leading developer of software and services for creative professionals wanted to incorporate “voice of the customer” data more deeply into their software development process. The team already placed a high value on understanding customers and anticipating their needs, and product managers were juggling a mix of costly customer surveys, homegrown data sources, and bolt-on business intelligence tools, in order to make sure the data could be used to manage the product roadmap. The team implemented a standardized technical stack for usage data to streamline their process.

The technical data stack allows the team to capture comprehensive, anonymous usage data about features, customers’ file types, system configurations, and other important aspects of user behavior. Usage data has augmented and in some places replaced costly customer surveys, home-grown data sources, and unnecessary reporting tools, resulting in savings of \$10,000-\$20,000 per product release.



Use anonymous usage analytics for a comprehensive depiction of user engagement, environment data, and feature usage.



Extensis has extended the functionality of existing products and shaped entirely new offerings based on Reverera usage data.

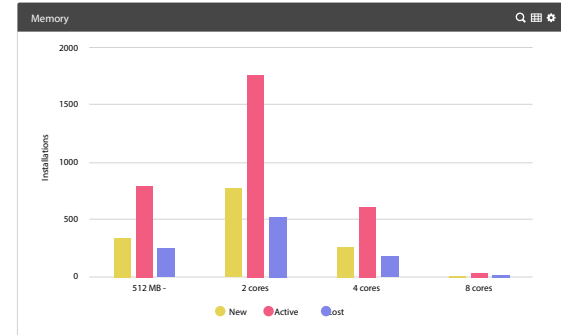
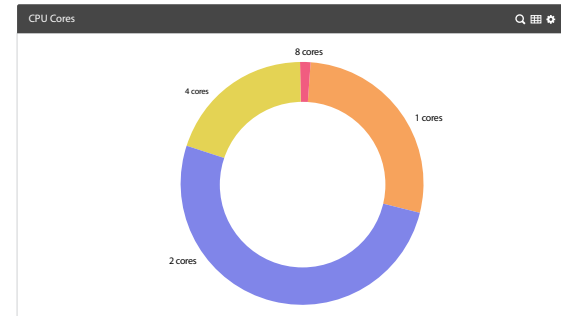


## How Do I Know When the Majority of Users Have the Computing Power to Take Advantage of New Resource-Intensive Features?

When designing new capabilities for its Building Information Modeling product, a quality controls software developer was trying to determine whether their diverse international user base had the hardware to handle the resource-intensive demands of their planned new features. The firm knew that its typical approach of speaking to customers at events and obtaining customer support feedback wouldn't give them the needed confidence to move forward.

After releasing a product update with software usage analytics, the team was able to draw important conclusions including local usage patterns and anonymous system configuration information. This data clearly demonstrated that the user base was capable of handling the new, innovative modeling features the team was eager to deploy.

The team was able to release their powerful new tools without leaving customers behind, all while establishing a strong competitive advantage over other products on the market.



Integrating software usage analytics enables product teams to identify hardware and system configurations and consequently define the product roadmap.



Data-driven decision making allows Solibri to extend its competitive advantage.

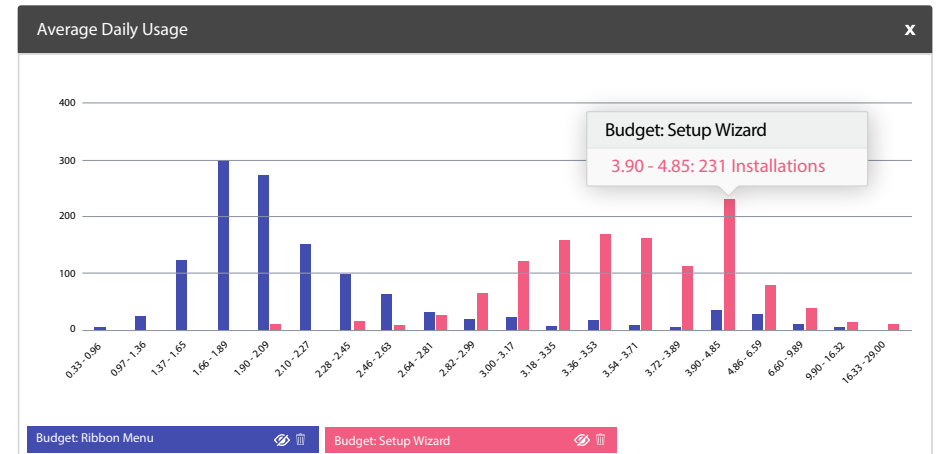


## Why Aren't Users Taking Advantage of Our "Killer" Feature?

Sometimes actual customer adoption rates don't align with internal beliefs or product management expectations. So, when product managers at an accounting software company started tracking the usage of its major product features, they discovered something surprising: customers weren't using the "killer" new Budgeting feature, developed at significant cost.

With software usage analytics in place, the engineering team utilized an A/B test among new users to discover the best way to promote this feature. Each version of the test provided a different user interface to expose and promote this new Budgeting capability.

The product team studied the behavior of these new users and determined which version led to greater (and earlier) adoption, enabling the higher-converting UI to be rolled into the next product release. Adoption of the Budget feature rose dramatically among existing users, leading to higher user success numbers.



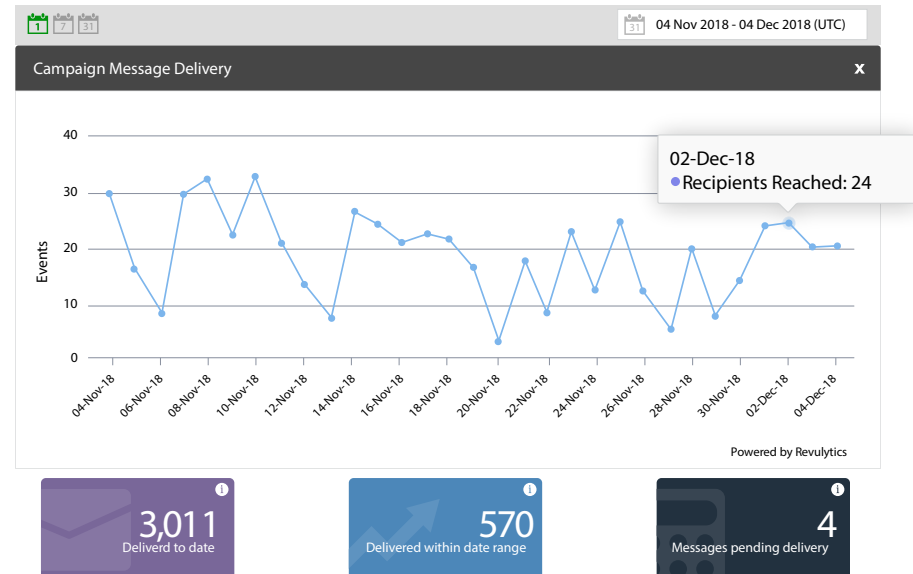
The accounting software company easily evaluated their A/B testing and determined which interface led to increased adoption for their new budget feature.

## How Do I Know What Existing Customers Think about New Product Features?

An HR software company saw through software usage analytics that customers were interested in experimenting with a new performance review workflow recently added to its latest product release. Given the initial success of the workflow, product management decided to prioritize further development of this feature in the next release. To confirm their approach, they decided to augment the quantitative usage data from the app with actual qualitative user feedback.

The product team leveraged dynamic in-app messaging to deploy a messaging campaign to multiple, hyper-targeted user segments. Multiple sets of feedback questions were developed and sent to users depending on their interaction with the feature. These feedback questions were delivered to users while they were actively engaged with the app—not through email surveys which yield lower response rates.

This approach allowed the team to deliver contextually relevant survey questions based on behavioral and environment data already gathered. Since the questions appeared upon completion of key user activities, the company was able to achieve a high response rate and felt confident in its relevancy. They collected valuable feedback on this specific feature to be iteratively developed for future product releases.



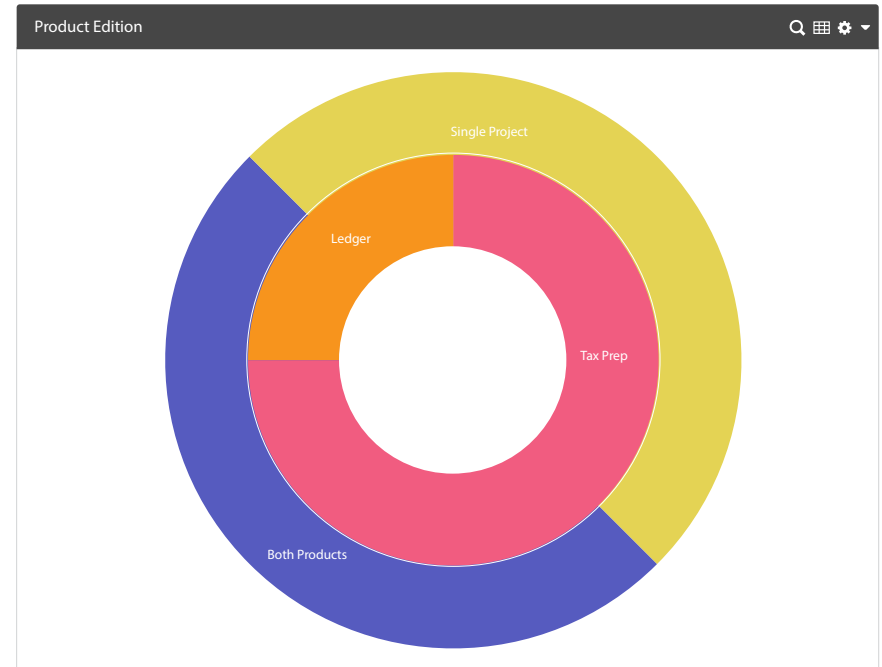
End users could be targeted with contextually relevant in-app messaging campaigns because of usable analytics data.

## How Can I Tell How Many of my Products my Customers are Actively Using?

Looking for valuable cross-sell opportunities, a leading creator of B2B technology development solutions wondered which of its users were running just one of its complimentary products, and which users were running both. While historical sales data showed lucrative cross-sell potential, real-time usage data could turn that potential into profit.

By having usage analytics implemented on each product independently, they quickly collected all Machines IDs running each product. After comparing the lists, the company knew which machines were already running both products. But more importantly, they knew who owned only a single product, and understood their usage data. This intelligence helped the team target in-application cross-sell offers to just those users who only owned one product. Furthermore, the team could now segment the user list, varying the offer based on usage behavior. This actionable data allowed the team to focus on the applications' key features and value for a particular audience.

This analytics driven approach achieved significantly better results than traditional cross-sell campaigns. Engagement rates for in-app messages towered over traditional email outreach—up to 10× higher. The team also discovered that power users' discount threshold for response was lower, meaning they could maximize profit on each sale.



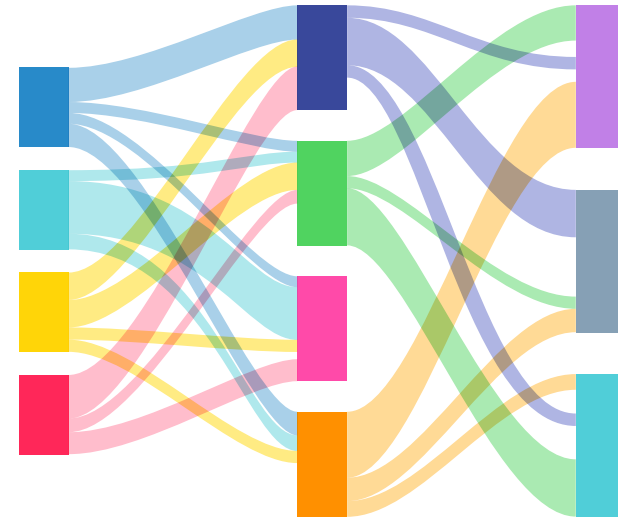
A leading B2B tech company cross-references usage data between multiple products to seize upselling opportunities.

## How Do I Optimize UI/UX without Frustrating Users?

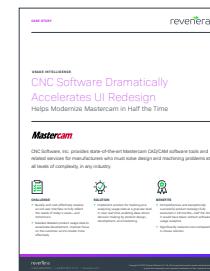
In order to maintain its position as an industry leader, an enterprise technology firm contemplated completely overhauling its ten-year-old interface. Their flagship product had over 1,200 separate functions and a complex set of user controls. In fact, product and engineering teams trying to identify critical user success metrics to guide their product redesign were challenged by this complexity.

But with the right software usage analytics in place, the product team had actionable insight. Team members were able to analyze usage frequency of different functions to determine the difference between commonly-used functions that were somewhat buried in UI menus and front-facing functions that were infrequently used yet taking up valuable screen estate.

The team was then able to organize and manage its feature list, group it logically, and design an interface that promoted the most important features and helped user workflow. The software analytics package tracked all usage data across a number of beta builds, enabling the engineering team to make adjustments and ensure the smooth launch of a major release in half the time originally estimated.



By tracking user flow X the application, the team was able to optimize the user interface.



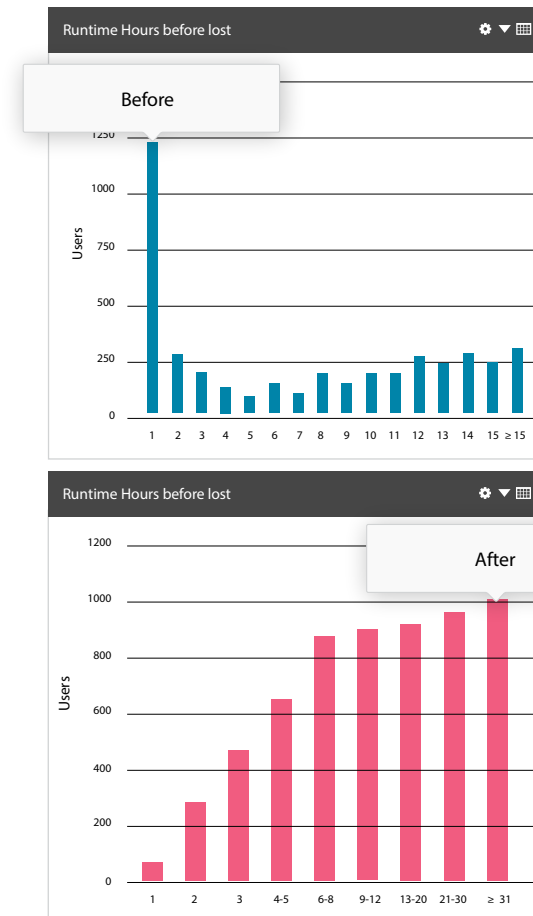
Mastercam's most important software update in decades: They nailed it in record time.



## Why Aren't More Trial Users Converting to Paying Customers?

After investing significant resources on an innovative software version update, a leading provider of accounting software was stopped in its tracks by the subsequently low conversion rate of trial users to paying customers. Actual response differed significantly from projections—the team even contemplated a version rollback. Product management needed definitive, data-driven answers before making such an important decision. Using their software usage analytics tool, they ran a detailed conversion analysis and segmented user behavior from one version to the next to compare what improved conversions.

The report told a dramatic story. Compared to the previous software version, new users, frustrated by the updated configuration wizard, were dropping the product within minutes of installation. After pushing out a simplified configuration wizard, there was a 9.7× increase in conversion rates and a 1.5× increase in product upgrades.



Users rejected the product update because they were initially dissatisfied with the new onboarding wizard. Improving user engagement within the first 5 minutes increased trial conversions 9.7×.

## Additional Reading

We hope you're thinking about the value software analytics delivers to product management and development, and are considering sharing this with those tasked with driving customer success and delivering revenue-generating products.

We encourage you to read Parts 2 and 3 of our **Building Better Applications with Software Analytics** Series.

### **PART 2**

#### **Take a Customer-Centric Approach to Product Management**

provides actionable insight into how you can bring software usage analytics and a razor-sharp customer focus into your software development process.

### **PART 3**

#### **A Product Manager's Guide to In-App Messaging to Engage, Convert and Delight Users**

lays out the best practices for creating and deploying in-app messaging to drive benefits across the software development lifecycle and across your organization.

**REVENERA USAGE INTELLIGENCE:**

# Better Software Begins with Better Data



Revenera Usage Intelligence provides valuable insight into product and customer usage patterns to help you make data-driven decisions that foster user engagement and accelerate adoption. This powerful solution helps you understand user activity and conversions after your product is downloaded by gathering intelligence on what platforms and architectures the software is running, which features are used or ignored, and how usage and churn trends vary by user segment.

Our advanced analytics engine provides valuable insight via a powerful dashboard—with the ability to drill-down into reports that answer specific product questions. When you combine this insight with the

solution's in-app messaging functionality, ReachOut™, you will achieve greater user engagement with benefits for the entire organization.

With actionable insights at your fingertips, you're empowered to shape your product strategy, roadmaps, packaging, and pricing models based on real-world facts. Best of all, Usage Intelligence integrates into your application development process quickly and easily for rapid ROI.

## FOOTNOTES

1. The 18th Annual Product Management and Marketing Survey by Pragmatic Marketing  
<http://go.pragmaticmarketing.com/l/231562/2018-07-10/c8p9d>
2. Gartner (Hype Cycle for Customer Experience Analytics, 2018; Hype Cycle for Software as a Service, 2018; and Hype Cycle for Application Security, 2018)  
<https://www.gartner.com/doc/3884513/hype-cycle-customer-experience-analytics>  
<https://www.gartner.com/doc/3884674/hype-cycle-software-service>  
<https://www.gartner.com/doc/3884178/hype-cycle-application-security>
3. Gartner, Predicts 2018: Technology Go-to-Market  
<https://www.gartner.com/doc/3829971/predicts-technology-gotomarket>
4. The 18th Annual Product Management and Marketing Survey by Pragmatic Marketing  
<http://go.pragmaticmarketing.com/l/231562/2018-07-10/c8p9d>
5. Gartner (Hype Cycle for Customer Experience Analytics, 2018)  
<https://www.gartner.com/doc/3884513/hype-cycle-customer-experience-analytics>

Reverera provides the enabling technology to take products to market fast, unlock the value of your IP and accelerate revenue growth—from the edge to the cloud. [www.reverera.com](http://www.reverera.com)

