INSTALLED BASE ANALYTICS BASED ON MACHINE LOG DATA

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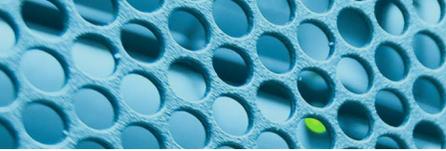
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"To elevate competitive differentiation and strengthen customer loyalty, businesses must understand how their products are performing in the field. This critical task can now be performed with a degree of precision and insight never before possible by using Glassbeam's big data applications. By mining huge volumes of machine data produced by intelligent connected devices, Glassbeam provides product managers, engineers and other business unit professionals with an unprecedented level of insight into how products are being used, based on actual machine-generated data from the installed base."

THE CHALLENGE

Product management for technology-intensive markets is a challenging job. With rapid changes in technologies and customer expectations, product managers are challenged to understand how customers are using what they have today, and what they might want next. The same is true for product engineers who are tasked with designing new or enhanced products, and for customer support staffs trying to spot patterns in problems occurring in the field.

A critical requirement in product management and engineering is understanding how customers are using what they have today. What features are and aren't being used? Where are problems occurring most often? What limitations on performance, capacity or other key metrics are being reached? Is there a cluster of features that impact revenue or profits? Can a factual understanding of product usage lead to better customer segmentation and to products better tailored for those segments?

A big problem for product managers and engineers is that once a product is installed in the field, they lose visibility into how it's being used. Most fall back on traditional methods for getting feedback -- periodic customer interviews, focus groups, and analysis of support calls. But these methods capture the experience of only a small number of customers, and the responses can be highly subjective. While qualitative methods have value, they need to be balanced by rigorous quantitative measures of how products are being used.

The challenge of understanding customers' experience with physical products is in sharp contrast to today's online product environment (such as cloud-based applications, social media and e-commerce), where real-time information on customer behavior is constantly gathered, analyzed and acted upon.

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APPROACHES TO QUANTITATIVE DATA GATHERING

Traditional methods of gathering information on installed products are often cumbersome and shortsighted. Focus groups and surveys provide only a slice of the overall product usage information, and because it is information collected by humans from humans, it invariably is filtered to some degree. Information also can be collected from support databases, but summary reports and analysis based on this data can be incomplete or even inaccurate.

Many companies rely on their customer relationship management (CRM) systems, but these seldom gather information about how products are actually used on a day-to-day basis.

Wouldn't it be more helpful if there were a way that product managers and engineers could know how every installed piece of equipment performs every day? Clearly, yes. But doing so is impossible for a human being, or even a team of human beings, to accomplish.

Fortunately, there now is an answer -- Glassbeam's big data application for product managers and engineers.

THE GLASSBEAM SOLUTION

Glassbeam brings a revolutionary approach to helping product managers and engineering teams get the information they need on deployed products. The key to Glassbeam's solution is the ability to gather massive amounts of
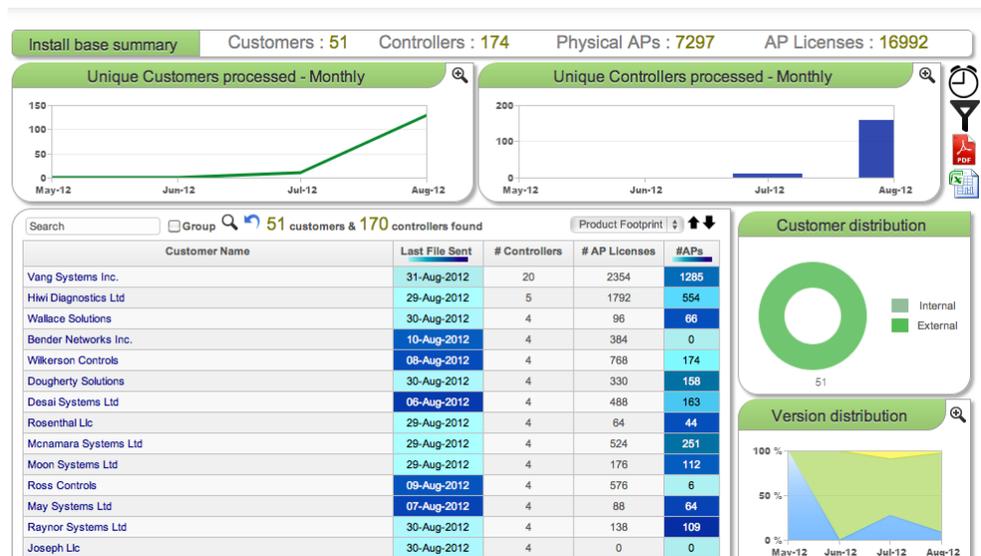
"machine data" generated by intelligent, connected devices in the field, analyze that data, and present the findings in a format that's easy to understand
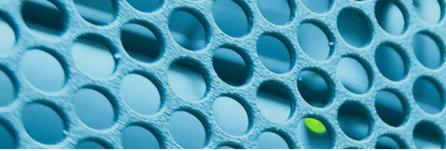
by business professionals.

Customer Intelligence

The Glassbeam application pulls log data from machines deployed at customer sites worldwide, stores it in a data warehouse, and applies its breakthrough SPL™ language, which is used to describe and create meaning and relationships between elements in operational data.

In contrast to many big data analytic tools on the market today, which are designed for use by IT staffs, Glassbeam's applications are specifically made for business professionals such as product managers, design engineers, support staff, sales teams, and executive management.

Results from product log data are presented in a Business Intelligence Workbench, which allows professionals to apply a wide variety of parame-

Model Distribution
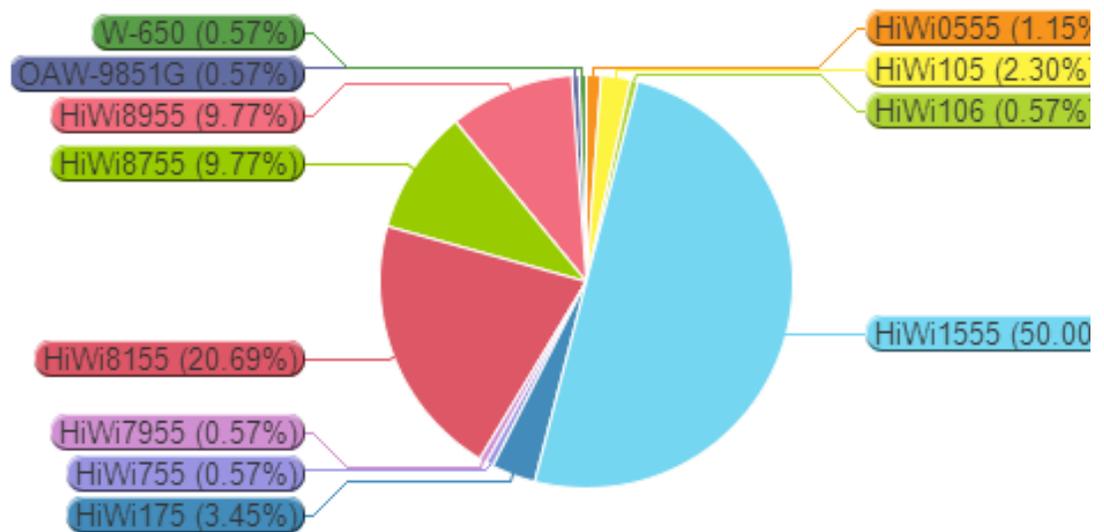
ters, and presents the information in an easy-to-view, clearly understandable format.

The results can be shared with a variety of audiences and can also be embedded into CRM, ERP and other software applications to further leverage this knowledgebase.

Glassbeam applications can be deployed either as software-as a-service in the cloud, or on-premise as a hosted application.

GLASSBEAM AT WORK

Users of the Business Intelligence Workbench can generate ad-hoc queries

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on configurations, statistics or static values of machine data across the entire installed base over any period in time. The Workbench also can generate custom reports and dashboards for specific, pre-defined queries across sets of systems, customers or the entire installed base. The images from Glassbeam can be exported into PDFs for sharing, or the data can be exported into spreadsheets for further data mining.

Upgrade Counts
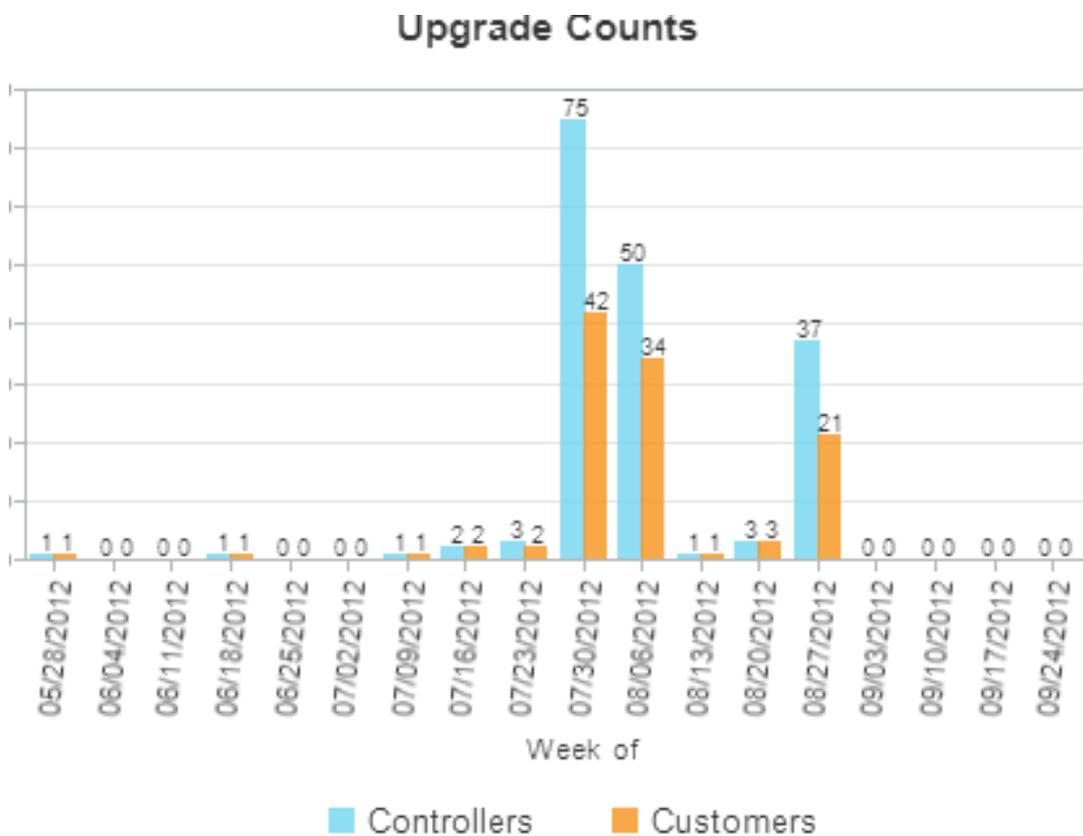
The Workbench also provides predictive modeling capabilities that show patterns, such as failures in a part.

Here are some examples of the Glassbeam application at work:

▶ A manufacturer of storage systems has thousands of units installed and each system generates a stream of machine data every day about numerous operational metrics. Until Glassbeam's application was installed, that data was never analyzed. Today, it is the source of regular reports on customers' usage patterns.

▶ A manufacturer of wireless networking products has models with more than two-dozen settings and more than a dozen software versions. Prior to Glassbeam's application, support staff, product managers and product engineers had no reliable source of information on critical issues such as which features customer were using, and whether a new software release was causing prob-

lems. Today, those and many other operating metrics are instantly available to employees throughout the company via a simple Web interface.

▶ The customer-support and product-management teams at a supplier of storage subsystems both want better insight into how customers are using their products. How are products being reconfigured in the field? Are products being used outside of recommended parameters? Is there a relationship with firmware updates and help-desk calls? Previously, these questions were answered with incomplete, mostly anecdotal information. Today, with the Glassbeam application, questions are answered definitively, based on hard data collected across the installed base.

CONCLUSION

Product managers and engineers can gain important new insights on how their products are being used by customers through Glassbeam's big data applications. Glassbeam turns huge amounts of machine data, gathered from across the installed base, into actionable insights that business professionals can put to use to increase revenues, improve customer support, and develop better products.

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