eQube®-BI
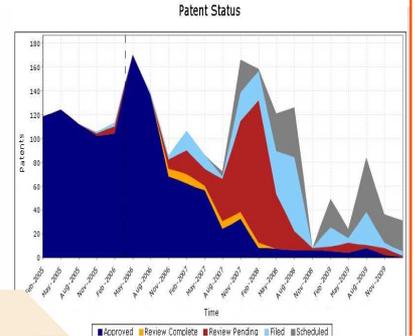
eQube® Business Intelligence - Transforming enterprise-wide data into insightful and actionable analyses

fact sheet

> **Summary: Rapid transformation of data from disparate enterprise systems, including PLM, into insightful and actionable analyses for timely decisions.**
>
> eQube®-BI creates "visibility infrastructure" for its customers that provides them with unprecedented visibility in their business processes for informed and timely decisions. With eQube®-BI, customers are able to rapidly perform actionable analyses via detailed reports, ad-hoc reports, KPIs and Dashboards. To-date, eQube® has allowed its Global 1000 customers to dramatically leverage their investments in their Teamcenter (PLM) implementations.

Benefits

Able to "substantially leverage" your investments in Teamcenter through actionable analyses on Teamcenter-managed data

Able to collate data from across Teamcenter and other enterprise applications to form a "single view of data"
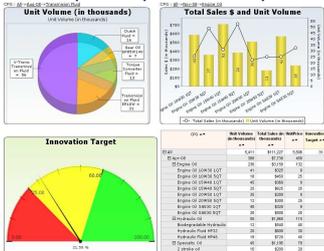
Able to perform actionable analyses via KPIs, Dashboards, detailed reports, and ad-hoc reports

End-users access for reports, ad-hoc reports, KPIs, via a web-browser window or a Portal or SharePoint Portal/ Teamcenter Community

Able to honor and leverage customized Teamcenter object model and security model "As-Is"

Able to represent the business questions in the form of objects, relationships, and attributes for rapid analysis

Able to take pre-determined "actions" based on business "events". These actions can be timely Alerts as well as automating laborious and error-prone process steps.

Substantially leveraging Investments across the enterprise

eQube-BI provides visibility in the form of key performance indicators (KPIs), Dashboards, detailed reports, and ad-hoc analysis. It has unprecedented capability to form "single view of data" across multiple data sources. It is built on SOA compliant open architecture that is highly scalable. Such capabilities enable enterprises to rapidly synthesize and leverage data from disparate business systems, including PLM, into actionable analyses for timely decisions.

eQube's advanced adapter framework allows eQube-BI to seamlessly connect to enterprise applications natively through the applications' APIs, or to legacy applications via database specific plug-ins, or through web-services. Therefore, it leverages each installation's specific customizations while honoring its access control and security rules as-is.

In the PLM domain, eQube-BI has been tightly integrated with Teamcenter Unified and is offered as Teamcenter Reporting & Analytics module by Siemens PLM Software. It has well-established connectors to all Teamcenter products. In the ERP domain, eQube-BI has connectors for SAP and IFS. Additionally, eQube-BI has connectors for other domains, such as: ECAD, manufacturing execution systems (MES), planning systems, etc.

Therefore, eQube-BI is able to address PLM/ERP/CRM/ECAD domain specific as well as enterprise-wide reporting, ad-hoc reporting, and analytics questions with unprecedented speed, flexibility, and dramatically lower total cost of ownership (TCO). For example, eQube-BI provides customers with enterprise-wide BI capability by collating and synthesizing data from Teamcenter, ERP systems (such as SAP or IFS or BaaN), and other legacy systems. Such capabilities are provided in real-time or near real-time while leveraging each application's customizations and honoring each application's security and access control logic.

Use Cases
Organization-wide Dashboards - Enterprise Performance Management (EPM)

eQube-BI has core capabilities to monitor and analyze an organization's performance in multiple categories. Example performance categories: Schedule Performance, Cost

eQube ®

Key Features:

- Highly scalable SOA-compliant open architecture
- Intuitive and feature-rich end-user UI via eQube-BI Portal or Sharepoint Portal or Teamcenter Community
- Web-browser as the "client" for all users (zero foot-print client)
- Dynamic analysis capability - drill-up/down, drill-through, on-the-fly hierarchical representation of data, etc.
- Visual and intuitive mapping of "cubes" from one or multiple data sources
- Intuitive and feature-rich BuildNPlay UI for power-users.
- In PLM domain, integrated with Teamcenter products. With Teamcenter UA, end-user interaction from within Teamcenter.
- "Cubes" can be represented as Charts or detailed reports or both
- Proactive "alerts or early-warning signals" via eQube's EMS module
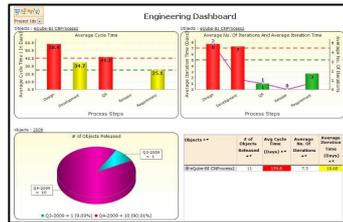- Does not need a data warehouse or data mart for BI/Analytics
- Connects to Enterprise Applications (Teamcenter, SAP, etc.) via native APIs
- Open and flexible in data input formats: application specific APIs, relational databases, web-services, XML, flat files, excel, and "star-schema" data
- Powerful integrated Scheduler
- End-user ability to submit an analysis to a queue via "Schedule Now" functionality
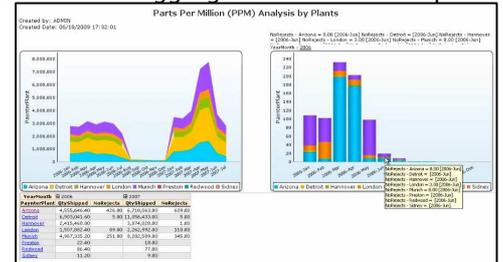- eQube features and access controlled by "roles"

Engineering Dashboard

Performance, Quality Performance, Throughput Performance, and Speed Performance. Various metrics/KPIs can be developed in each of these categories at various organizational as well as project/program levels.

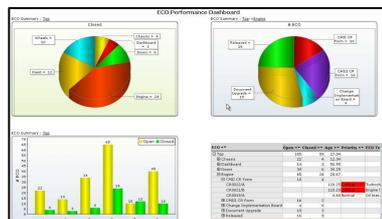Metrics are defined and aligned top-to-bottom. And, they are measured and aggregated bottom-to-top. Data is collated from multiple enterprise applications and presented as related metrics/KPIs to form meaningful Dashboards. The KPIs and Dashboards can be presented via customer specified Portals (generated using eQube-BI's Portal capability) or published as web-parts to be consumed in Sharepoint or Teamcenter Community portals.

Parts Per Million (PPM) Analysis by Plants

Pro-active analytics – Early warning signals

eQube's event management system module ("EMS module") provides unprecedented capability to take pro-active actions based on certain business events.

Work-flows in any business domain are critical. Many customers have massive and complex work-flows. As an "early warning signal or alert" eQube can "watch or listen to" a particular step or milestone in the work-flow and based on the status of that milestone or based on a condition about the status, in the background, eQube can take a series of actions of automating certain activities or raising an early warning signal.

ECO Performance Dashboard

For example: If documents or parts or change notices are late by a certain time-period in reaching a specific "watched" milestone, then eQube-BI can generate an alert in the form of an e-mail with details of all such late items. The customer then is able to take actions to recover from the lateness so the final dates are not jeopardized or is able to prevent other items from potentially becoming late. eQube-BI alerts are full-fledged graphical metrics or detailed hierarchical reports that allow end-users to drill down to the lowest possible level of detail where an "action" can be taken.

Generation of complex reports/analysis

Using eQube-BI customers are rapidly able to perform complex analysis.
Examples are:
a) Detailed BOM/Parts list reports
b) Costed BOM reports
c) BOM Compare reports (e.g.: "As Designed" vs. "As Built")
d) ITAR reports
e) Orphan Parts reports
f) BTP Package Status reports
g) Part failure analysis reports (MTBF, MTTR)

Bill Of Material Comparison - ASSM001 - A & B
Created by: ADMIN
Created Date: 09/25/2009 15:43:33

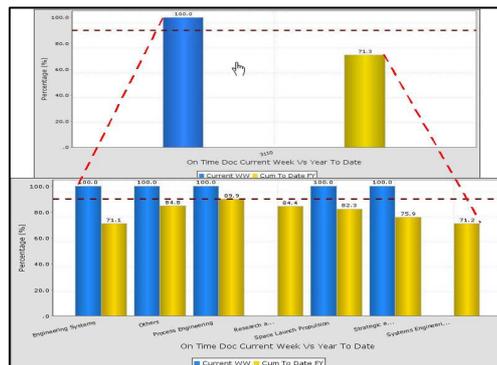## Key Features:

Several built-in features to manage the load on source data production servers

Advanced caching techniques to reuse a cached "cube" for many different types of analysis - called "variations"

Extensive historical performance analysis capability via "snapshots"

Intuitive end-user defined "Conditional Formatting"

Ability to understand trends and patterns

Flexible "ad-hoc" report generation capabilities

Ability to output the analysis in HTML, XML, Excel, PDF formats, and e-mail

Once these types of extensive / complex reports are mapped, they can be scheduled via eQube's integrated and powerful Scheduler. With the Scheduler the reports run in the production environment consistently at pre-determined frequencies. In addition with the latest "Schedule Now" functionality, eQube-BI allows end-users to submit their extensive / complex reports to a queue and notifies them once the reports are ready. eQube's global customers in the Aerospace & Defense industry have some of the most complex and extensive BOM structures ranging from few hundred thousand parts to couple of million parts with 20 - 30 level deep BOM hierarchies. eQube's open and highly scalable architecture has allowed them to run these types of reports regularly without issues.

Customized analytics – "drill through" capability

Some of the examples of this capability in the Teamcenter world are: process status metrics/KPIs, root cause analysis that goes fe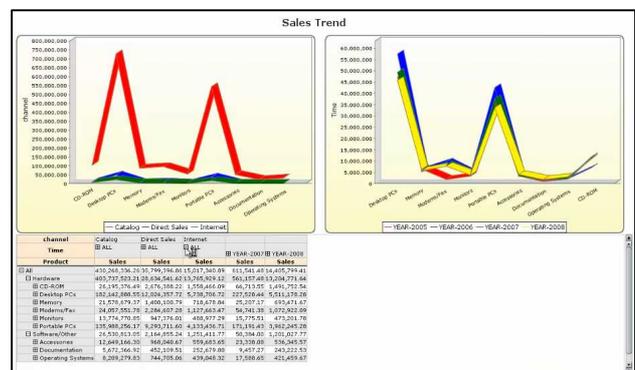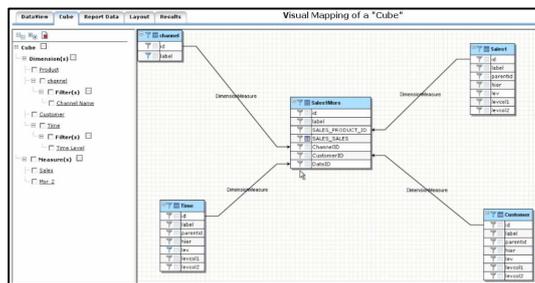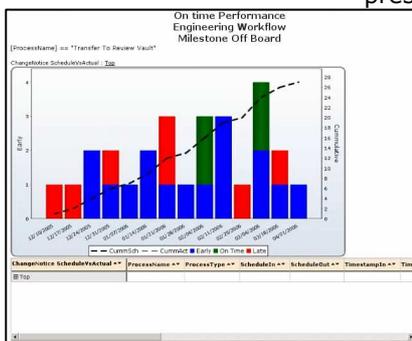w levels deep, or MTBF analysis. Every organization has certain unique ways and unique formulae that are used in these types of analysis as well as a set of criteria that is considered to be acceptable for Red/Yellow/Green status of such analysis. eQube-BI's intuitive user interface in mapping as well as the end-user centric BuildNPlay module, allows for these types of analysis to be developed with ease and speed.

For instance, consider the following example: a process status analysis is mapped in eQube-BI that shows Red/yellow/green status for change requests. Once all the relevant data is presented as a "cube" in eQube-BI, an end-user, on-demand will be able to drill into the change requests that are shown in Red to reveal its details and then further drill into it to identify the affected parts and documents.

Also, such eQube-BI analysis can readily and visually pinpoint the workflow step(s) with most "Red" change requests with an ability to further drill into it to understand root causes and resources/owners responsible for those steps. Such "on-tap" analysis capability can substantially help the managers in effective and timely decisions, as they are able to monitor the status at a high level and are able to drill-down to the desired levels of details to pin-point bottlenecks or root causes. Such decisions potentially can have significant influence on their product programs being on time and within budgets with highest quality levels, thereby leveraging their investment in PLM.

Contact

eQ Technologic

Americas/Europe	**+1 877 279 5732**
Asia-Pacific	**+91 20 30254000**

www.eq-technologic.com

eQ Technologic