Kawasaki Robotics

Builds Global Platform for Enterprise Engineering Management System with the Aras PLM Platform

> **Aras Innovator is a flexible system that meets our wide range of needs. It is also a very useful platform that provides advanced functionality, such as Visual Collaboration and Configuration Services, for pursuing more efficiency opportunities.**

Mr. Yasushi Kurosawa
Senior Manager
Technology Planning Department
Robot Business Division
Kawasaki Heavy Industries

About Kawasaki Robotics

As a pioneer in industrial robot manufacturing, the Kawasaki Heavy Industries' Robot Business Division (Kawasaki Robotics) supplies a large number of robots for welding, assembly and handling, painting, and palletizing to various industries, including the automotive industry and the electrical and electronics industries.

In 1969, Kawasaki Robotics began manufacturing the first industrial robots produced in Japan. Based on the techniques and in-depth experience they have accumulated over the past 50 years, they consistently provide high-quality, high-performance robots and high-value-add solutions and services to customers worldwide.

Business Benefits

- Faster product development and improved engineering quality by establishing a digital engineering platform

- Enhanced security by developing a global information-sharing platform

- Visualized engineering progress and deliverables

- Migrated from a legacy system to Aras PLM without business interruption

- Seamlessly integrated PLM with other internal systems

- Continuously improve via the Aras subscription service

Visit the company's website for details:
https://robotics.kawasaki.com/en1/

Leveraging Aras Innovation

Kawasaki Robotics had relied on engineering systems that were designed internally. These included a design BOM management system, workflow system, technical document management system, and production management system. All of these systems were developed to satisfy business requirements of the company, making them very compatible with business operations and easy to use. Kawasaki Robotics has managed their drawing data in 2D mainly, with 3D CAD data being managed only in a file server.

However, Kawasaki Robotics increasingly shifted to 3D for their engineering process, making 3D data management more important and more difficult to manage on the file server.

Against this backdrop, the Information Planning Department of the Kawasaki Heavy Industries Head Office began to consider providing in-house platform as a service (PaaS) using Aras Innovator.

An Aras Community Case Study

Kawasaki Robotics started their PaaS effort using Aras Innovator and CAD Connector for CATIA.

Aras certified partner ADS supported Kawasaki Robotics in the implementation. By integrating Aras Innovator with the existing design BOM management system and workflow system, they succeeded to build the 3D data management system without drastically changing existing business processes. In addition, 3D PDF data automatically generated by Aras Innovator now enables verification and sharing of geometry data without licensing 3D CAD tools. Based on this success, the scope of usage of Aras Innovator has been gradually expanded after completion of this first phase.

Expansion of Aras to Technical Document Management

In their second phase of Aras PLM implementation, Kawasaki Robotics planned to migrate to a new technical document management system. Existing systems were core systems in the company linked to procurement and production management systems, including the design BOM management System. As globalization of Kawasaki Robotics' business progressed, improvement to security was one of the major business challenges. As a result, Kawasaki Robotics decided to replace the existing system with their new technical document management system based on Aras Innovator. With the release of the viewing function within Visual Collaboration, information can be shared simply by referring to on-screen images. This prevents important files from being leaked due to the sending and receiving of drawing data.

Although this project was performed simultaneous to the upgrade to Aras Innovator, it took only 12 months for the entire project, including concept design, development (including system integration), upgrade verification, and data migration.

The Aras Upgrade Service

For continuous use of IT systems, such as end-of-support for the operating systems and updating browsers, an inevitable challenge is upgrading the

system. Kawasaki Robotics has been upgraded twice since it started to use Aras in January 2015. "The subscription service of Aras Innovator fully supports upgrades that cover our customized environment and programs which we developed in house. In fact, we never experienced critical issues during our two upgrades, and we completed each within 2-3 months. We were pleased to find the upgrades were easy and required minimum investment." said Mr. Ryosuke Sano from the Information System Section.

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Mr. Ryosuke Sano
Information System Section
Robot Business Division
Kawasaki Heavy Industries

Aras as a Digital Engineering Platform

As a result of their smooth use of Aras as a CAD data management system and a technical document management system, Kawasaki Robotics became convinced of the flexibility, customization, and business applicability of Aras. For this reason, Kawasaki Robotics has decided to utilize Aras Innovator as a platform for digital engineering in response to a range of business-improvement demands from various departments in the future. After just two years since the CAD data management and technical document management systems began to operate, the following results have been achieved:

- Improved software development quality through integration between Aras' OOTB Project Management applications and Redmine
- Developed the Schedule and Resource Management tool for designing, manufacturing and installing industrial robots using Aras Dynamic Task Manager, an Aras add-on solution provided and supported by local Aras partner Zionex.
- Built a Global Sharing Environment for Controlling Software by improving the security level through migration from Notes DB.
- Improved efficiency via electronic workflow of product manuals

"Aras Innovator is an indispensable system for solving a wide range of issues faced by various departments." said Mr. Ryota Nakamura, Assistant Manager, Technology Planning Section.

Kawasaki Robotics plans to utilize Aras Innovator as the platform for their future business improvements.

Mr. Yasushi Kurosawa, Senior Manager, Technology Planning Department, stated as follows: "Aras Innovator is a flexible system that meets our wide range of needs. It is also a very useful platform that provides advanced functionality, such as Visual Collaboration and Configuration Services, for pursuing more efficiency opportunities."

About Aras

Aras® enables the world's leading manufacturers of complex, connected products to transform their product lifecycle processes and gain a competitive edge. Aras' open, flexible, scalable, and upgradable PLM platform and applications connect users in all disciplines and functions to critical product information and processes across the extended enterprise.

Aras customers include Airbus, BAE Systems, GE, GM, Hitachi, Honda, Kawasaki Heavy Industries, and Microsoft.

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Project Summary

▸ **PLM**：Aras Innovator

▸ **CAD**：CATIA

▸ **Partner**: ADS Inc. (Total advisor) / APPLIED TECHNOLOGY CO., LTD.

▸ **Customized Processes**: CAD Data Management; Technical Document Management; Project Management

▸ **Add-on Tools**: CAD Connector for CATIA / Dynamic Task Manager (Zionex Inc.)

▸ **Locations:** 10+

▸ **Users**: 1,300

▸ **Content Unified and Managed in Aras:** Over 1,200,000 items of CATIA data, technical documentation, and engineering change notifications