LUVINA SOFTWARE

Manufacturers seeking BOM & Document management with ARAS Innovator

PROJECT OVERVIEW

[Aras Innovator] Aras Solution Covers the Entire Product Lifecycle

- Customized document management functionality on Aras Innovator for enterprises
- Customized BOM management functionality on Aras Innovator for manufacturing companies
- Developed a new machinery and equipment management system based on the Aras Innovator platform for enterprises
- Developed information and document management functions for factory locations, highways, substations, etc., on the map using ARAS

ABOUT CLIENT:

Primary serving companies in the automotive, industrial machinery, consumer goods, and energy sectors

INDUSTRY: Manufacturing

DURATION: 05/2022 ~ Now

SIZE: 14.3 MM

SERVICES:

- Technical consulting and requirement definition
- POC development
- Design
- Development, testing, and release
- Maintenance and operations

KEY TECHNOLOGIES:

- Aras Innovator: Programming languages: VB.Net, C#, Javascript
- Low-Code
- Database: SQL server

PROJECT OVERVIEW

CLIENT AND OBJECTIVES

The end-user customers are companies and enterprises involved in the manufacturing of automobiles and motorcycles, computers, and energy. These companies sought solutions for document management, BOM management, and enterprise resource management. They decided to collaborate with the largest and most trusted Japanese SI companies in the industry, as our direct client.

CHALLENGES	OBJECTIVES
Material management: The customers faced issues with material mix-ups during the production process.	Develop a feature to compare differences between actual materials and planned materials before production.
Document management: The customers also struggled with document management, version control, and access rights management.	Customize the document management functionality to resolve all the issues that the client encounter.
Machinery management: The customers experienced difficulties in managing their machinery, including issues like equipment failure and maintenance.	Develop a POC for functions related to machinery management within the factory.
Data lifecycle management: The end users lacked a lifecycle management system for data within their factories, substations, highways, etc., making it challenging to manage documents and operations within the organization.	Need a solution for managing information and documents at all branches and creating a comprehensive map storing information for all client’s facilities.

PROJECT OVERVIEW

SOLUTION:

Utilize Aras Innovator technology to develop or customize features that address and manage the customer’s challenges.

LUVINA’S ACHIEVEMENTS

1. RAPID GROWTH AND EXPANSION:

- Established in May 2022, the project has experienced rapid growth, expanding from 3.3 man-month to 14.3 man-month.

2. CUSTOMER RECOGNITION:

- CUSTOMERS Highly praise Luvina's ability to research and proactively provide technical consulting.

3. TEAM MATURITY AND DEVELOPMENT:

- High maturity and rapid team development.
- After six months of training, team members can independently handle tasks related to Aras Innovator.

4. HIGH PRODUCT QUALITY:

- Consistently meets deadlines and quality standards.
- Completed 355 tasks with no customer-reported bugs and only two comments related to descriptions.

END-USER ACHIEVEMENTS

1. IMPROVED DOCUMENT MANAGEMENT:

- Accurate version control and document management.
- Documents are securely managed with access rights tailored to user needs.

2. TIME SAVINGS IN DOCUMENT MANAGEMENT:

- Streamlined document management across power plants.
- Clear visualization on maps, making it easy to identify locations and manage overall operations.

3. REDUCTION IN MATERIAL MISUSE:

- Significant decrease in material mix-ups during production.

4. EFFICIENT MACHINERY MANAGEMENT:

- Quick and effective management of machinery information within factories.

SOLUTIONS - KEY FEATURES & ALIGNMENT TO GOAL

TEP*

01

- Create an order to apply objectives on the map.
- Search Marker on the map.
- Click on Marker to display the corresponding TreeGridView
- Zoom in & zoom out the Map
- 360° display

IMPLEMENTATION - PHASES

PROJECT	WHAT WE DO		OUTPUT
[TEP*] Development (June 2023 - Now)	Design	Create basic design flows with the Japanese team.	Requirements definition established.
		Detailed design	Develop detailed designs that can be implemented in code.
	Implement	Develop a Proof of concept (PoC) to test the feasibility of the defined requirements.	Product demo matches customer needs, and design updates are made if there are changes.
		Product development as design	Complete the implementation of the product
	Verification	Create test cases and conduct testing	Confirm features meet customer requirements.
		Create user manuals for the developed functions.	User manuals provided for the developed features.

SOLUTIONS - KEY FEATURES & ALIGNMENT TO GOAL

JPO*

02

REGISTRATION SCREEN

Assists users in recording issues found during equipment inspections at the factory. All data entered into the registration screen will be saved and updated in the reporting system.

DISPLAY SCREEN

Displays all abnormality reports from equipment inspections.

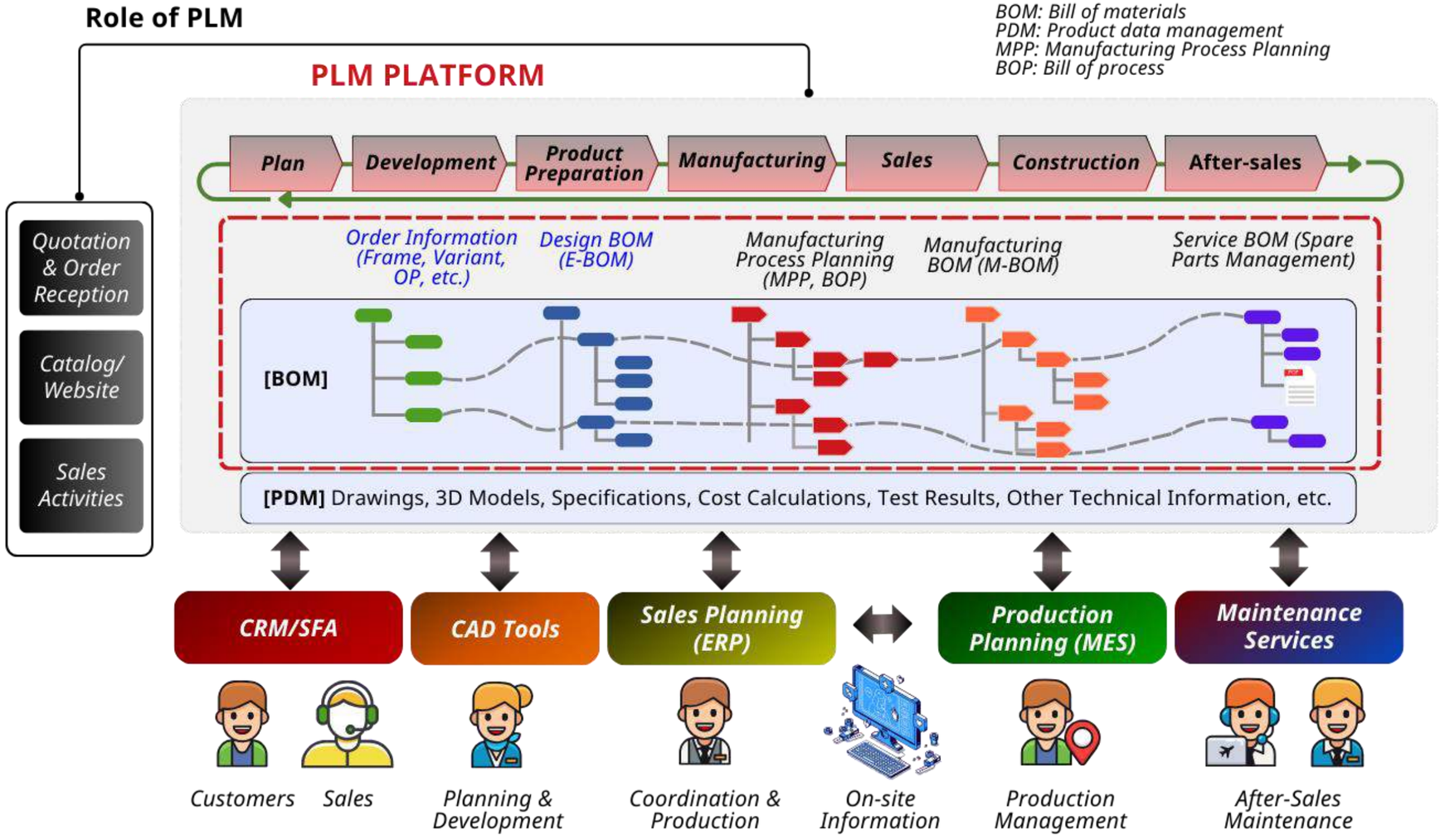
IMPLEMENTATION - PHASES

PROJECT	WHAT WE DO		OUTPUT
[SO*] Development (October, 2023 - Now)	Implement	Investigate and evaluate solutions based on current functionality.	Compatibility testing across multiple versions of Aras. Evaluate the reasonableness of current functionalities.
		Propose and develop additional features	Propose the development of new features. Fully develop new features to meet customer needs.
	Verification	Create test cases and conduct testing	Confirm features meet customer requirements.
		Create user documentation	Provide user manuals for the developed features.

SOLUTIONS - KEY FEATURES & ALIGNMENT TO GOAL

SO*

- Add, Edit, Delete Materials
- Manage material versions to track from the start of production to the finished product
- Compare materials between stages and design to ensure they match the original design, avoiding the use of incorrect materials

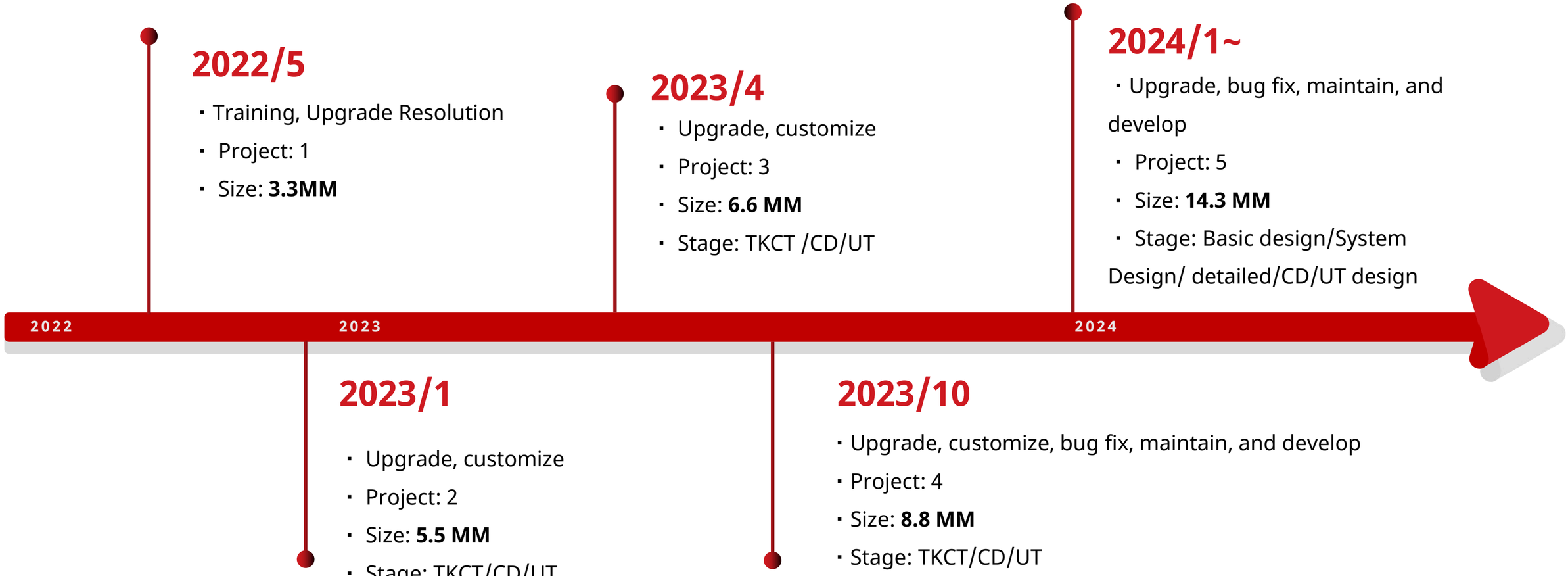


- Establish a BOM that serves as the information foundation for the product platform.
- Maintain integration and consistency between M-BOM and Sales-BOM.
- Organize product information.

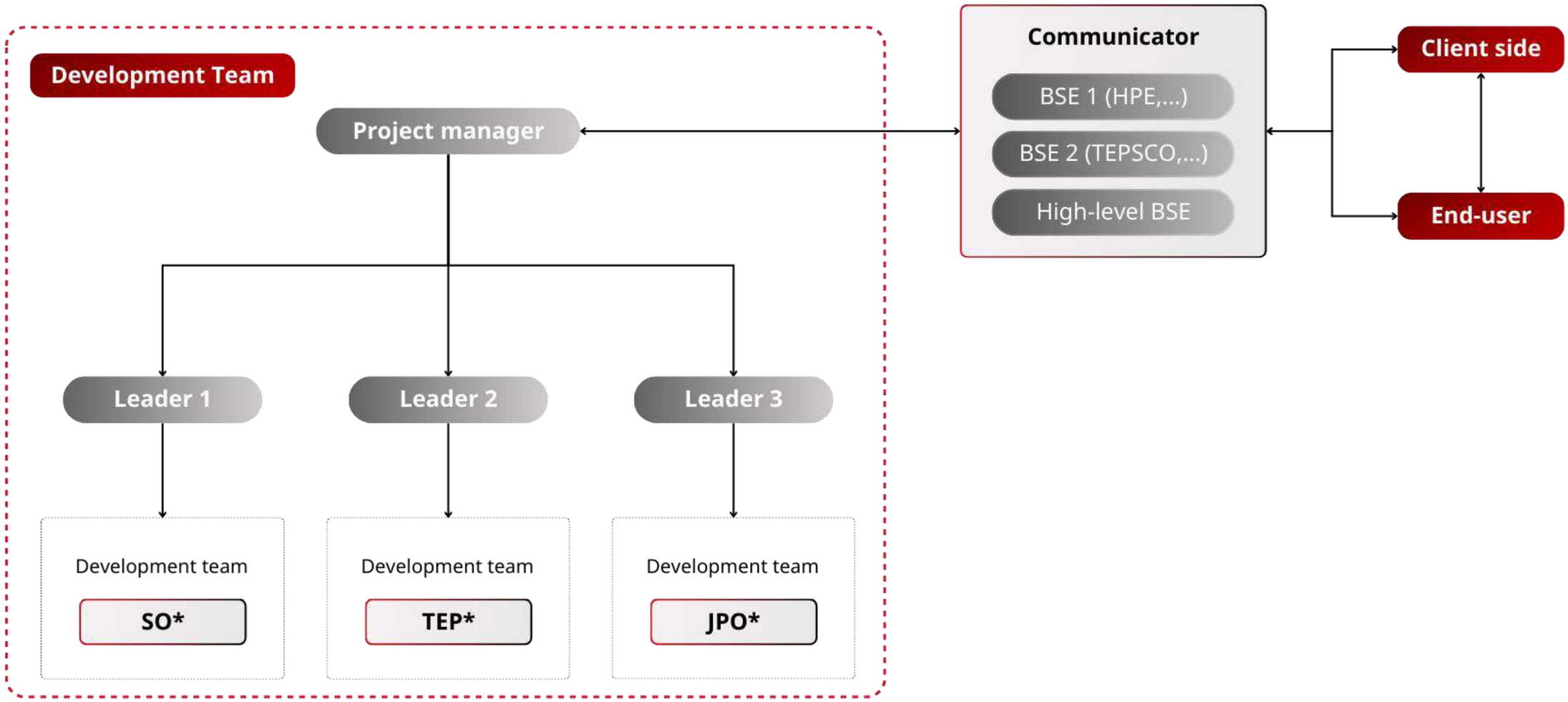
IMPLEMENTATION - PHASES

Project	What we do		Output
[JP*] POC Development 5, 2024 - Now	Implementation	Implement the registration screen code	Complete the registration screen that allows data entry and storage.
		Implement the display screen code	Complete the display screen according to customer requirements.
		Implement the layout code	Complete the layout according to customer requirements.
	Verification	Create test scenarios and conduct testing	Confirm that the features meet customer requirements.
	Demo	Perform product demo	The main flow of the product is completed and can show the demo to the customer.

IMPLEMENTATION- TIMELINE



IMPLEMENTATION - TEAM STRUCTURE



TECHNICAL DETAILS - OVERVIEW

RELATED FEATURES

BOM MANAGEMENT

Aras manages complex MBOM and EBOM structures across mechanical, electrical, and software components, ensuring responsibility and management throughout the product lifecycle.

CONFIGURATION MANAGEMENT

In managing the lifecycle of products and systems, Aras offers an integrated closed-loop system using methods certified by CMII and CMPIC.

DESIGN CHANGE MANAGEMENT

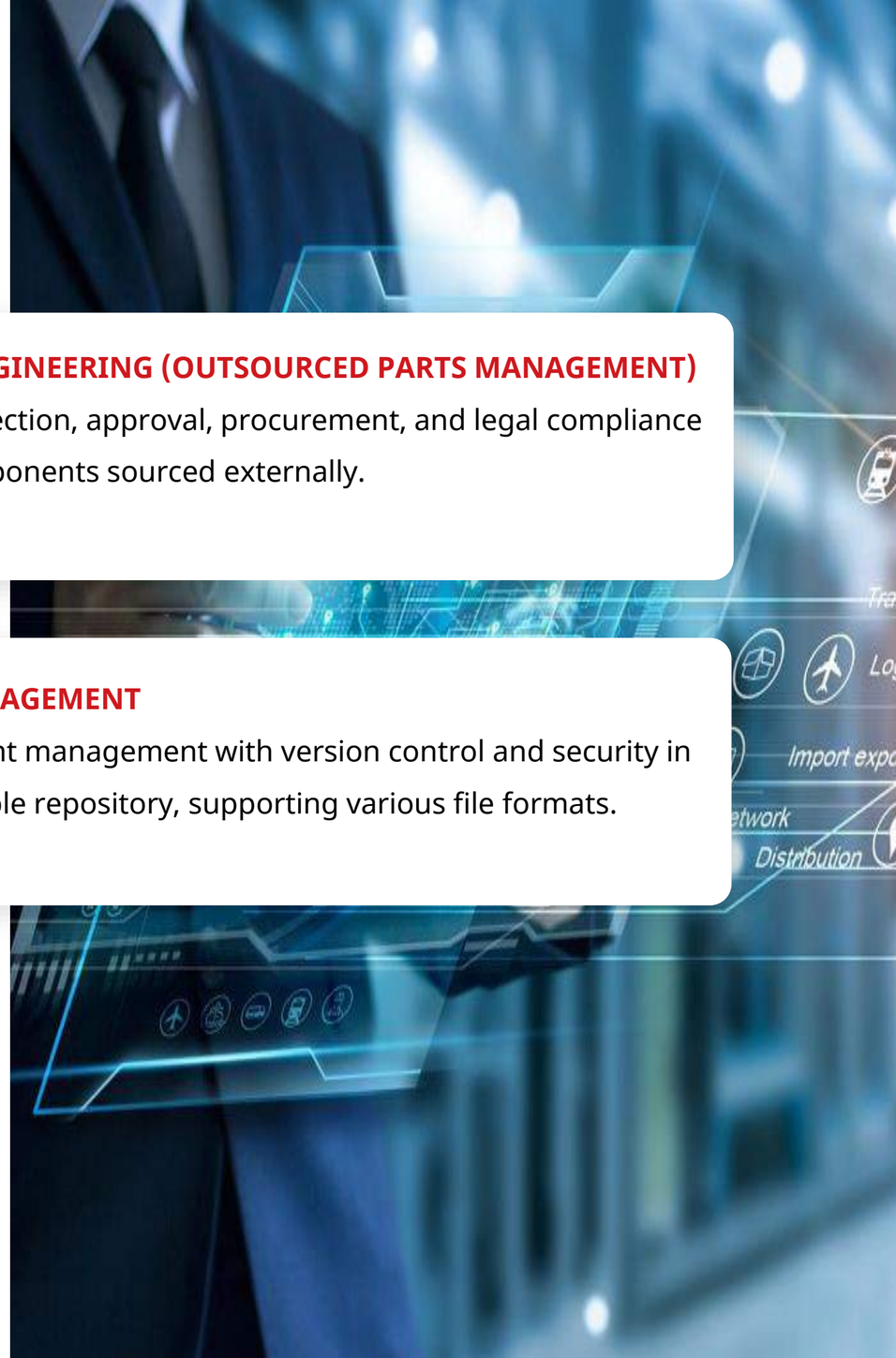
Aras facilitates design change management, including change requests, evaluations, and order processing, while optimizing supply chains and visualizing internal processes to prevent delays and reduce costs.

COMPONENT ENGINEERING (OUTSOURCED PARTS MANAGEMENT)

Optimizes the selection, approval, procurement, and legal compliance of electronic components sourced externally.

DOCUMENT MANAGEMENT

Provides document management with version control and security in an easily searchable repository, supporting various file formats.



TECHNICAL DETAILS - OVERVIEW

RELATED FEATURES

PROJECT MANAGEMENT

Visualizes projects and programs, enabling businesses to plan and manage resources, reduce risks, and maximize profits.

MPP (MANUFACTURING PROCESS PLANNING)

Provides an integrated approach to managing production data and processes with PLM, bridging the gap between engineering and manufacturing with digital tools.

QUALITY MANAGEMENT

Aras Quality Management System application provides advanced quality management tools (APQP) to meet environmental, regulatory, safety, and medical standards.

VARIATION MANAGEMENT

Aras Innovator allows for the flexible management of changes in product data to product configurations.

TECHNICAL DOCUMENTATION ISSUANCE

Allows for creating, visualizing, owning, and distributing technical documents across different fields under a securely managed environment.

REQUIREMENT MANAGEMENT

Enables the creation of hierarchical requirements necessary for complex product designs that combine hardware and software across multiple disciplines.

EXTRA PR POINTS - CHALLENGES/LESSONS

TESTIMONIALS

"We are incredibly grateful for the high level of technical support we've received in each project. Please continue to assist us in expanding our Aras business, and let's work together to achieve further growth."

"Thank you for your prompt response to the issues in Project Y***. I look forward to working with you."

"Thank you so much for your support on Project TE**. There are some unclear requirements, but your quick response was greatly appreciated and immensely helpful."

"Thank you for your assistance with Project Na*. Although the requirements were still vague, Heartcore-Luvina thoroughly reviewed them, provided feedback on the problematic areas, and suggested fixes. Heartcore-Luvina also conducted QA on the screen operations and proposed improvements. I find Heartcore-Luvina’s processing speed to be quite fast, even faster than other patterns in Japan. I have high expectations for Heartcore-Luvina. Please continue to support us!"

"Thank you for your support on Project H*. Your extensive technical knowledge was invaluable, from creating MAC policies to modifying Excel tools."

EXTRA PR POINTS - CHALLENGES/LESSONS

Level 1

1st year

2 months

Training on knowledge and methods for working with the Aras Product Lifecycle Management (PLM) system

6 months

Capable of completing tasks at an intermediate level after mastering the task responsibilities

Level 2

2nd year

1 year

Capable of solving complex problems and completing difficult tasks

Level 3

3nd year

The goal is to understand the work thoroughly and propose solutions to the client

EXTRA PR POINTS - SECURITY

PROJECT WITH STRINGENT SECURITY REQUIREMENTS

Operating under the ISO 27001 standard, the organization undergoes annual audits by a certification body.

Some of the specific security controls in place include:

Strict security regulations for project members

01

- Provide clients with information
- Security training, information security drill
- Request IT to check software installment.

Strict security regulations for members leaving the project

02

- Delete all accounts, files and documents related to the project.
- Reset members’ personal computer
- Update the HR changes with clients.

Thank You

LUVINA SOFTWARE

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