



Company **Introduction**

MEGATRADE Corporation -FY20260406

About Us



Company: MEGATRADE Corporation

Founder & Engineer: Sasai Masatoshi

Established: 1996

Team Size: 2

Head Office: Kyoto, Japan



Over 30 Years of Excellence in High-End Inspection (Since 1996)



Equipment



Inspection Targets

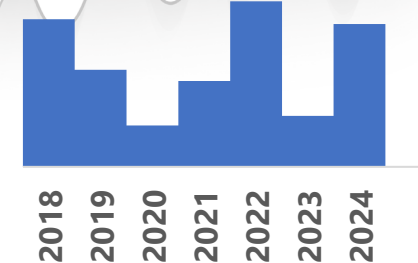


Over 50 Patents

Core strengths ★★★★★

- ✓ Proprietary Software
- ✓ Advanced Optical Hardware
- ✓ Integrated Control Systems
- ✓ Visual Inspection Expertise
- ✓ 30 Years of Industry Know-how

Solving equipment sales revenue volatility through Open Source.



Transition to Open-Source Software (Since Nov 2025)

Q1. Why transition to open-source now?

A1. This strategic shift marks the realization of our founding vision:

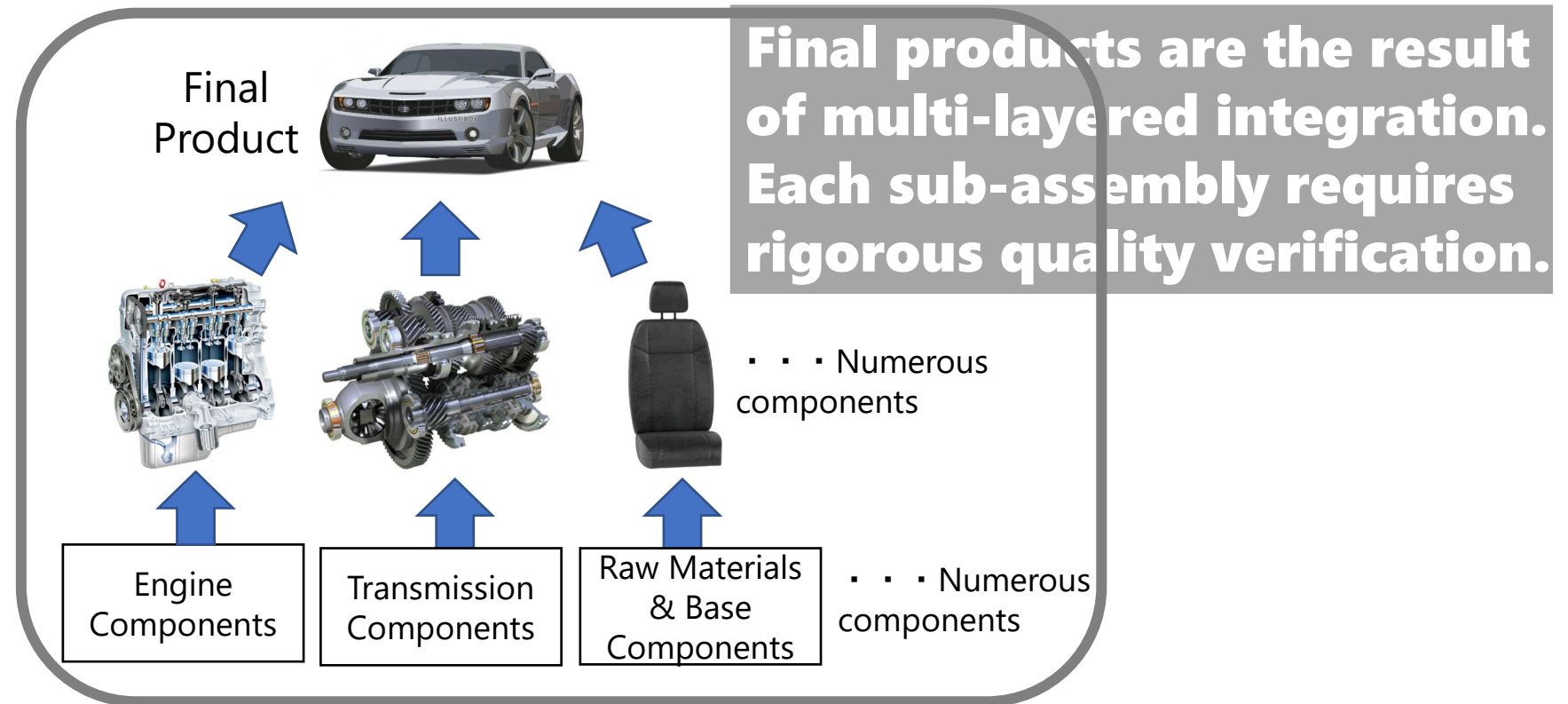
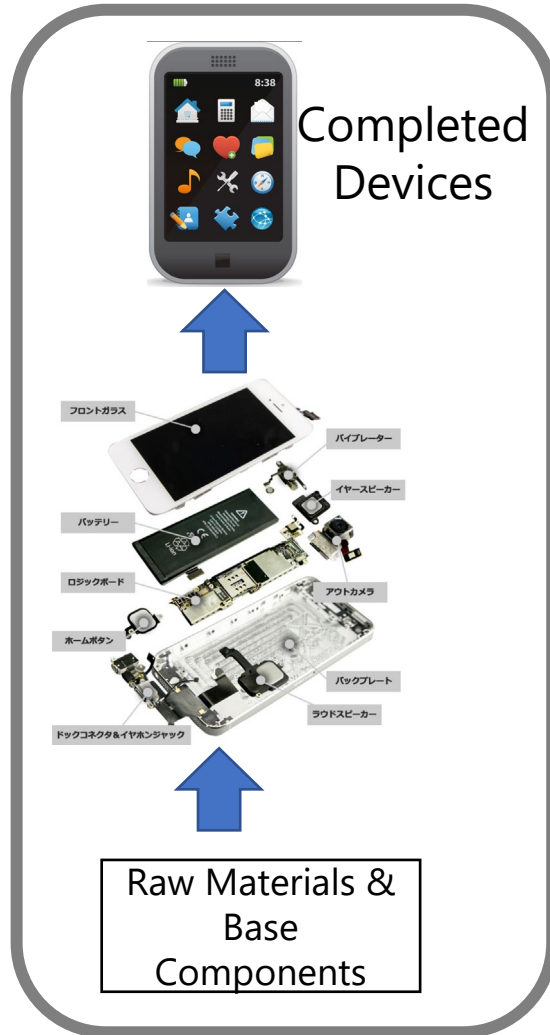
"To establish a global standard for inspection processes, utilizing internet connectivity to enable the seamless flow of quality data."

Recently, we reached a major milestone. A legacy system we delivered 30 years ago-which operated **24/7 without interruption**-has finally been decommissioned. For three decades, maintaining this critical hardware required immense focus and responsibility.

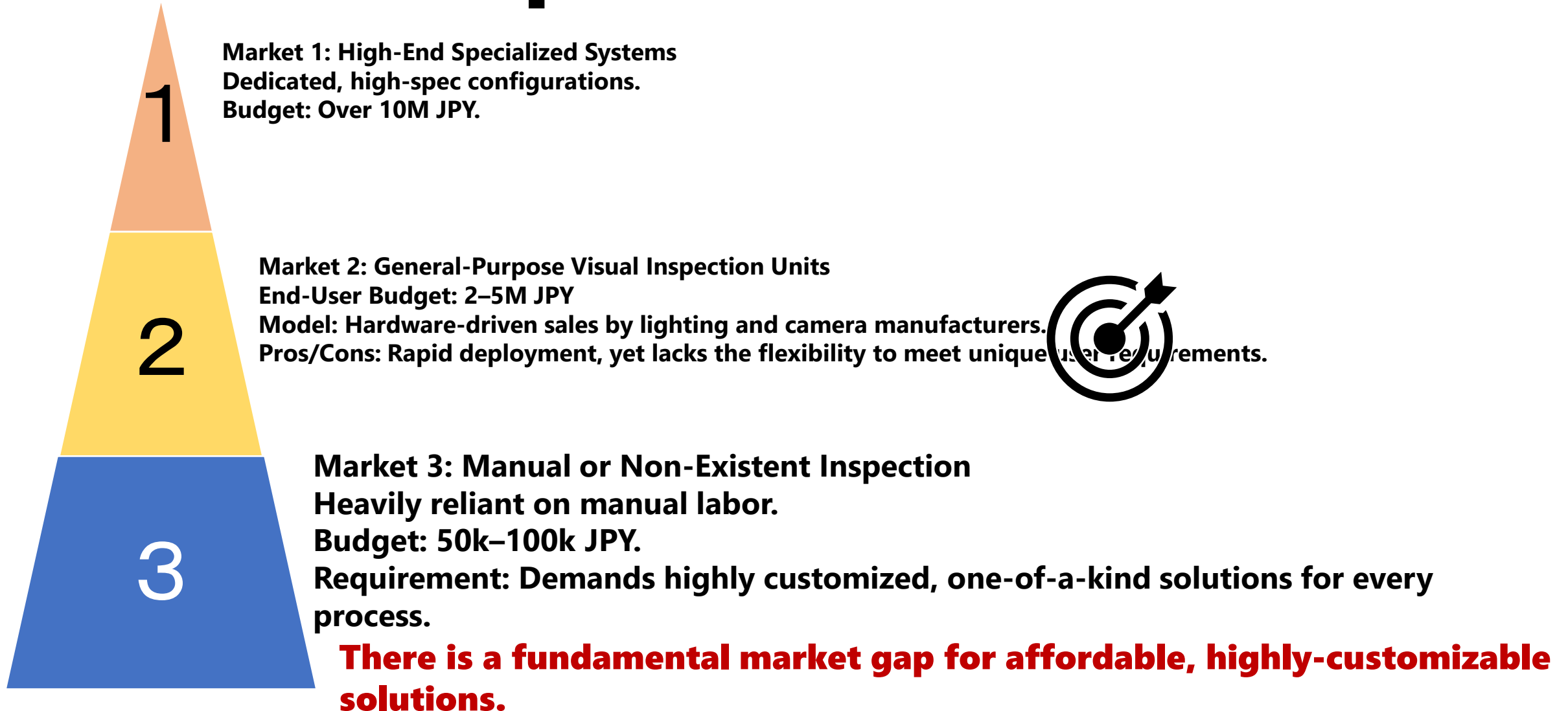
With this lifecycle complete, we are now reallocating our full technical energy toward our original vision. By transitioning to open-source, we are removing barriers to adoption and accelerating the future of global manufacturing data.

Rethinking Visual Inspection Across the Supply Chain

Manufacturing processes follow a hierarchical network where inspection is critical at every stage of assembly.



The Visual Inspection Gap: Balancing Cost and Requirement



Introducing OpenAA: Open-Source Innovation for Market 3

OpenAA is a versatile visual inspection system built on Regulus64 technology-a platform with over 30 years of proven industrial performance.

Defining "AA" (Application Architecture)

The term AA represents a newly defined layer in system architecture.

It resides strategically below the application layer and above common frameworks.

Unlike traditional middleware, OpenAA serves as a distinct, foundational position designed specifically for flexible inspection needs.

Powered by Regulus64:

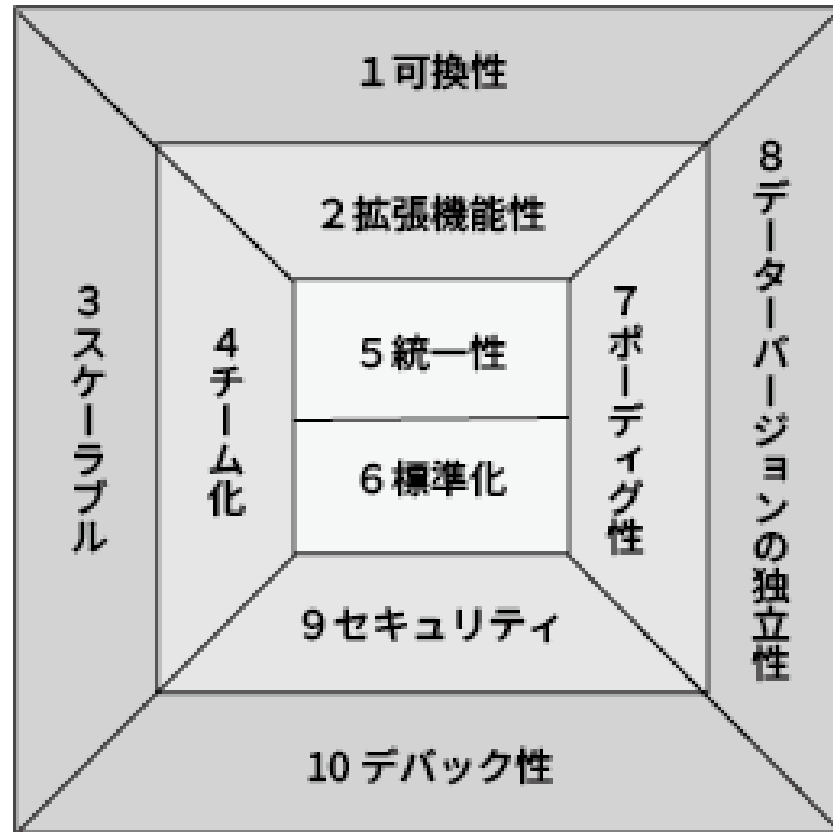
Regulus64 is the proprietary software suite developed in-house by MEGATRADE Corporation, now serving as the core engine for our open-source initiatives.

OpenAA-Software Layers and the OpenAA Layer

Layer	Description	Famous Examples (OSS + Commercial)
Application	End-user software interfaces.	GIMP (OSS), LibreOffice (OSS), Microsoft Office (Commercial), Photoshop (Commercial)
Application Architecture	Provides the structure and mechanisms that form the <i>backbone</i> of application development. Allows flexible reconfiguration and expansion of functions, enabling smooth transitions from PoC to full production.	OpenAA 1,000+ modular, networked components.
Middleware (<i>libraries / control frameworks</i>)	Supporting libraries and logic frameworks	OpenCV (OSS), TensorFlow (OSS), Unity (Commercial)
OS (Operating System)	Core system software that manages the entire computer and serves as the foundation on which applications and devices operate.	Linux (OSS), Android (OSS), Windows (Commercial), macOS (Commercial)
Drivers	Bridge between hardware and the OS, required for devices to operate correctly.	Linux Kernel Drivers (OSS), NVIDIA GeForce Driver (Commercial)
Device Control Software (Firmware)	Embedded software that directly controls machines and equipment.	OpenWrt (OSS), Printer/Camera firmware (Commercial)
Hardware	Openly shared designs such as circuits and boards, as well as commercial finished products.	Arduino (OSS), RISC-V (OSS), Raspberry Pi (Commercial)

OpenAA is our coined term. It bridges the gap between rigid applications and low-level frameworks, enabling rapid customization without the cost of bespoke development..

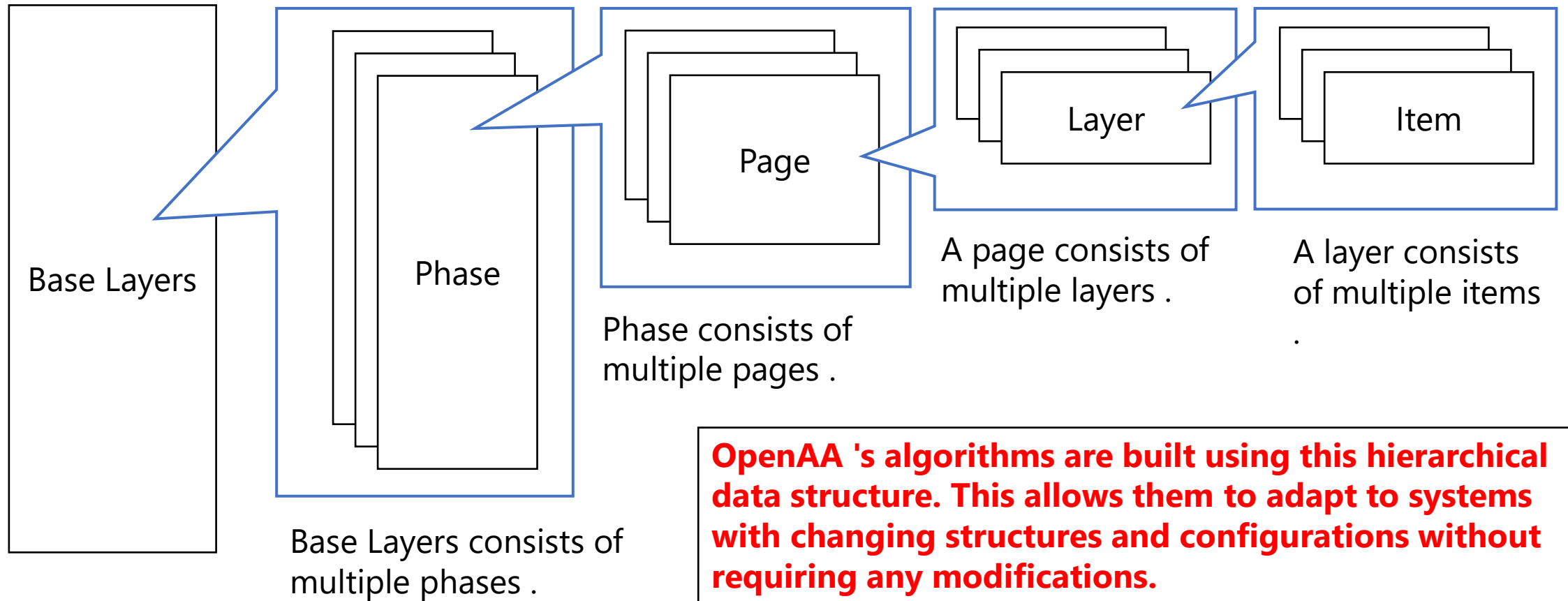
OpenAA-Ten Key Features



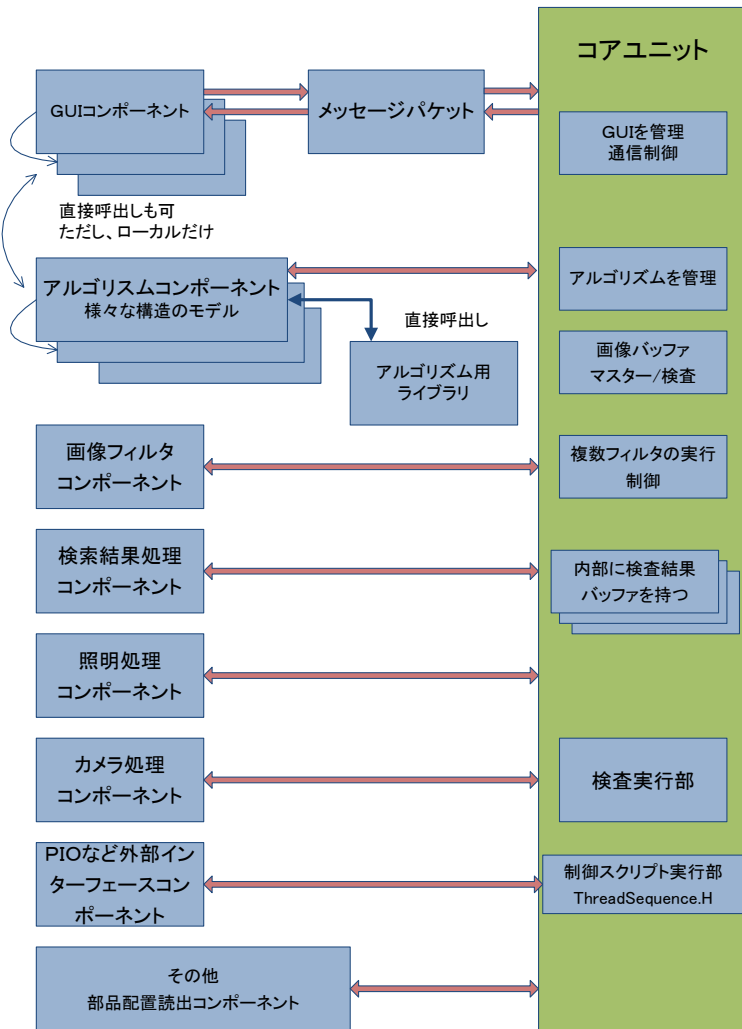
OpenAA 10 の特徴 Ten Key Features

- 1 可換性 Interchangeability
- 2 拡張機能性 Extensibility
- 3 スケーラブル Scalability
- 4 チーム化 Team Collaboration
- 5 統一性 Consistency
- 6 標準化 Standardization
- 7 ポーディング性 Portability
- 8 データバージョンの独立性 Data Version Independence
- 9 セキュリティ Security
- 10 デバック性 Debuggability

OpenAA Architecture Layering



OpenAA Architecture - Modularization



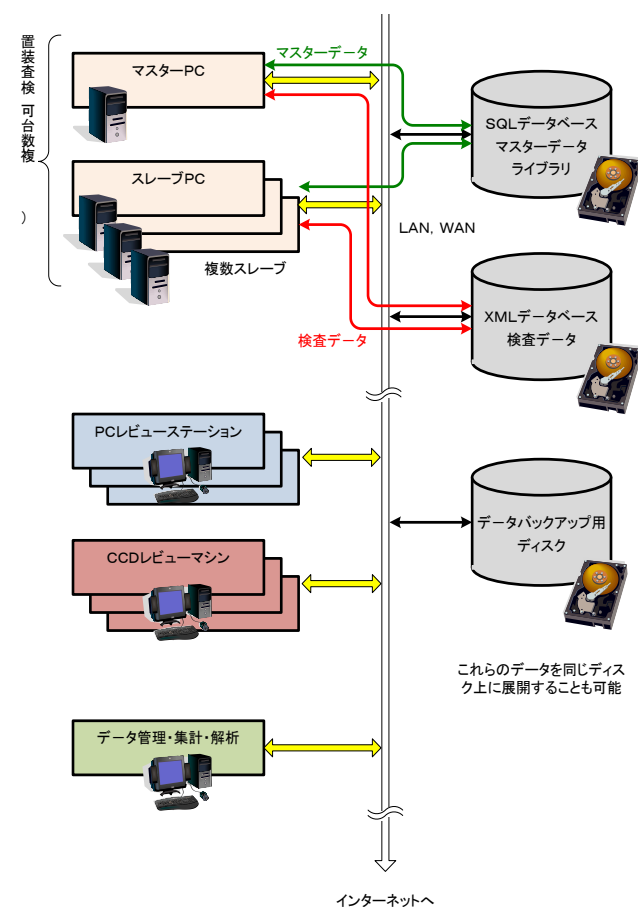
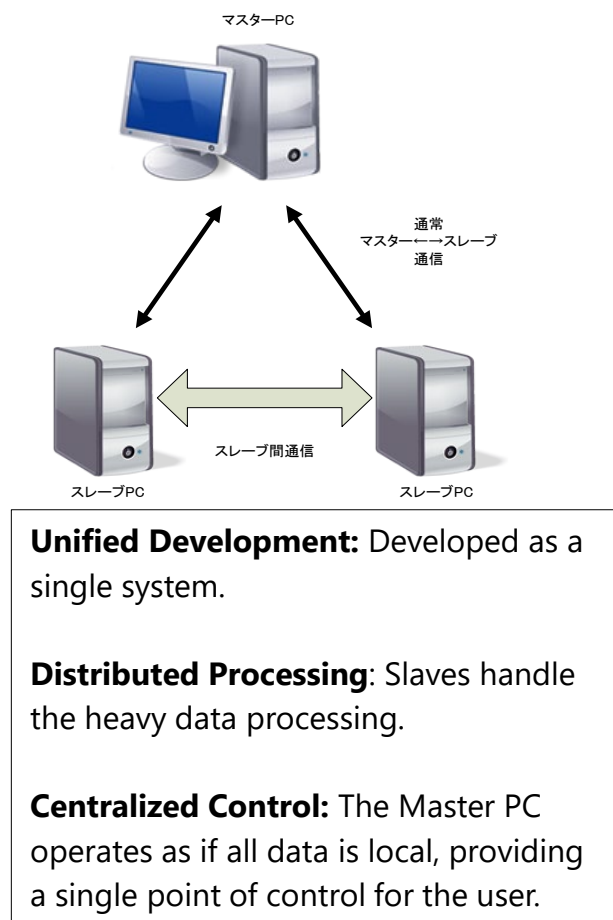
- ✓ **Algorithm Modularity:** Data processing and decision-making logic are encapsulated as modular components (.dll / .so) for flexible combination.
- ✓ **UI Customization:** Interface elements are modular, allowing for free layout and configuration.
- ✓ **Hardware Agnostic:** Camera, lighting, and machine interfaces are modular, enabling "plug-and-play" swapping.
- ✓ **Parallel Development:** Independent components allow multiple developers to work simultaneously without conflict.
- ✓ **Targeted Updates:** Enhance specific functions by updating only the relevant components.
- ✓ **Simplified Debugging:** Faster fault isolation and smaller, more manageable debug files (.pdb).

Current Asset Library: Total Components: ~1,200

- **Print Inspection:** ~200 components
- **PCB Inspection:** ~250 components
- **Automotive Parts:** ~120 components

OpenAA Architecture - Network

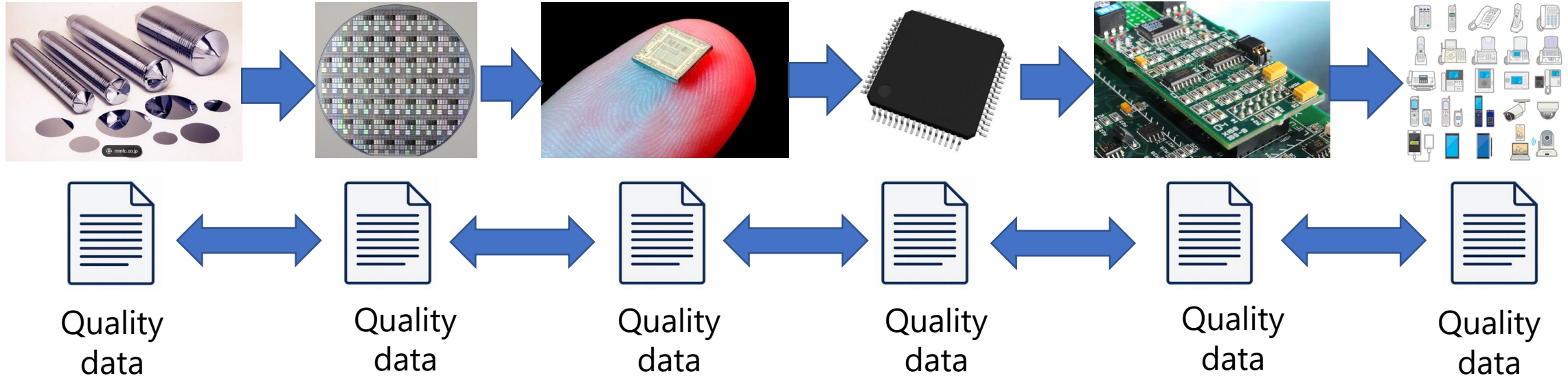
- **Decoupled UI & Execution:** GUI components use message packets to separate user actions from background execution and display.
- **Flexible Deployment:** The same software can run in a Master-Slave configuration across multiple machines or as a standalone program on a single PC.
- **Unified Communication:** Supports seamless data flow between:
 1. Master & Slave
 2. Slave & Slave (Direct)
 3. Integrated System & Master/Slave PCs



Other features of OpenAA

- ✓ Executing with a multithreaded scripting language for the interface with the device allows for easy connection to various devices.
- ✓ The GUI design and the text displayed within the program as Excel data, creating a language conversion table, and loading it, it's possible to switch between multiple languages instantly.
- ✓ High-speed execution (multicore compatible) for freeform shape creation, labeling, image processing, etc.
- ✓ Commercially available image processing libraries and AI libraries can be integrated into the system.
- ✓ Because it uses Qt as its framework, it can run on Linux.
- ✓ It is written in C++ and is written almost entirely in accordance with MISRA standards (static and dynamic analysis is also performed). A small portion is written in inline assembler and CUDA programs.
- ✓ In addition to inspection, the system is also equipped with external editing software, review systems, marking systems, and data analysis systems.
- ✓ Several processing methods have been patented.

Networking of quality data



- By passing quality data from each manufacturing process to the next, the quality of the product can be accurately understood and guaranteed down to the component level, and even down to the quality of the further components that make up those components.
- Quality data will be distributed over the internet based on a specific format (XML) .
- Quality data is typically automatically generated by inspection equipment and then streamed over the internet.
- Quality data is stored on servers within each process (business unit) or in the cloud.

Benefits of Networked Quality Data

- **Quality Assurance:** Transitions from "blind trust" in suppliers to data-driven verification of every component.
- **Cost Reduction:** Minimize waste by identifying and isolating specific defects rather than discarding entire batches.
- **Environmental Impact:** Reduces industrial waste through precise yield management and material optimization.
- **Competitive Advantage:** Compete on verified product excellence rather than just brand reputation.
- **Accountability & Troubleshooting:** Enables rapid root-cause analysis and clear liability through transparent data trails.

製造業で最近1年間に発覚した品質データ改竄などの不正問題	
神戸製鋼所	アルミ・銅製品など
三菱マテリアル	シール材、銅製品など
東レ	タイヤ補強材
シチズン時計	LED部品
宇部興産	ポリエチレン製品
日本ガイシ	送電線の絶縁体
日立化成	産業用鉛蓄電池
日産自動車、SUBARU、スズキ、マツダ、ヤマハ発動機	自動車・二輪車の燃費性能・排ガス成分
クボタ	鋼板生産設備の部品
※ 子会社などを含む。神鋼の最初の公表は平成29年10月8日	

OpenAA-Potential Markets

Target Market: Global Manufacturing Sector (15M – 30M Companies)

- **Market Segmentation (Estimated)**

Scale	Share	Inspection Requirements
Micro/Small (< 10 employees)	Approximately 60%	Localized production; 1–2 facilities.
Medium-Sized (10–250 employees)	Approximately 30%	Multiple factories; multi-stage inspection.
Enterprise (> 250 employees)	Approximately 10%	Complex, high-volume production lines.

- ✓ **Scalable Demand:** Every production line across every factory requires multiple inspection points.
- ✓ **Untapped Market:** No direct competitors yet, and it is very difficult for others to copy our technology.
- ✓ **One-of-a-kind:** custom specifications are required rather than general-purpose solutions

OpenAA — Business Overview

OpenAA is built on our proprietary software, Regulus64.

⇒ OpenAA is freely available under an open-source license, GPLv3 .

Optical hardware

⇒ Lighting Sales

Control software / hardware

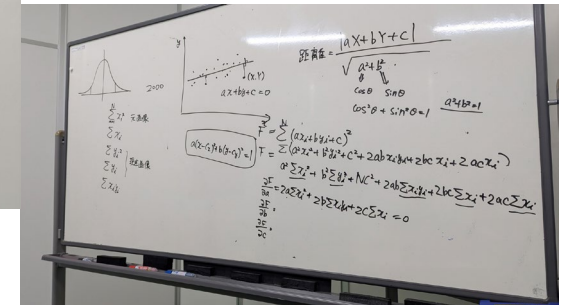
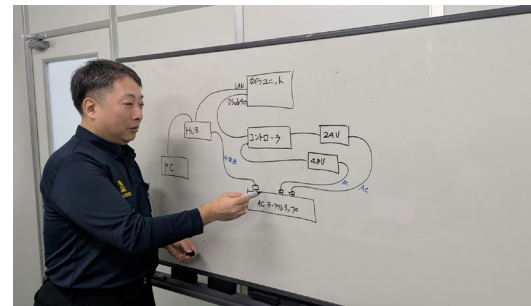
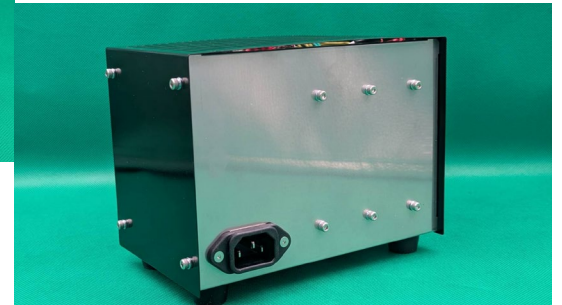
⇒ Controller Sales

Know-how and experience in visual inspection

⇒ Paid annual memberships for the community site

⇒ Paid

- Technical support services
- System installation services
- Verification and validation services
- Seminar organization
- Publication of books



OpenAA – Community



- Proposals for visual inspection
- Consulting on visual inspection software
- Seminars
- Product Demos
- Verification and testing
- Sales
- Dedicated (custom) software

OpenAA – Roadmap

2026



September 2025

We participated in a JICA event on March 5, and welcomed a JICA intern starting on August 27, marking the launch of our open-source software business.

As early adopters, one large enterprise and one small-to-medium-sized company joined as paid members.

At the same time, we began offering consulting services.

We also released the first-generation general-purpose camera unit, equipped with a camera, lighting, lens, and control box, priced at under 100,000 yen.



February 2026

Community site launch



March 2026

Release of technical documentation



April 2026

Launch of the quality data network



May 2026

Announcement of inspection guidelines and preparation for publication



Jun 2026

Academic conference presentations

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Thank You & Contact Information

Official Site



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