

Learn about our annotation services in 3 minutes!

Prescription for Annotation in Edge Cases



Worried About Edge Cases?



There are many edge cases, and the requirements for annotations cannot be clarified.

Therefore, we rely on the annotator's judgment.



Because we rely on the annotator's judgment,

Annotations are inconsistent.



The annotation rules then require revision to address inconsistencies in these edge cases.

Inefficiencies arise by redoing the annotations.

Examples of Edge Cases

An Edge case is a rare or unusual scenario where standard annotation rules may not apply. Managing Edge cases presents a significant challenge for AI development.

Autonomous Driving

- Recognizing road markings at construction sites (e.g., unexpected traffic route changes)
- Trees and other foliage obstructing traffic lights or signs
- Reflections of people on buildings or signs being annotated as real people

Factories (Visual inspection)

- Non-standard lighting conditions (e.g., when factory lighting temporarily fails)
- Unexpected contaminants such as hair or dust that enter during the manufacturing process or reflections

Agriculture

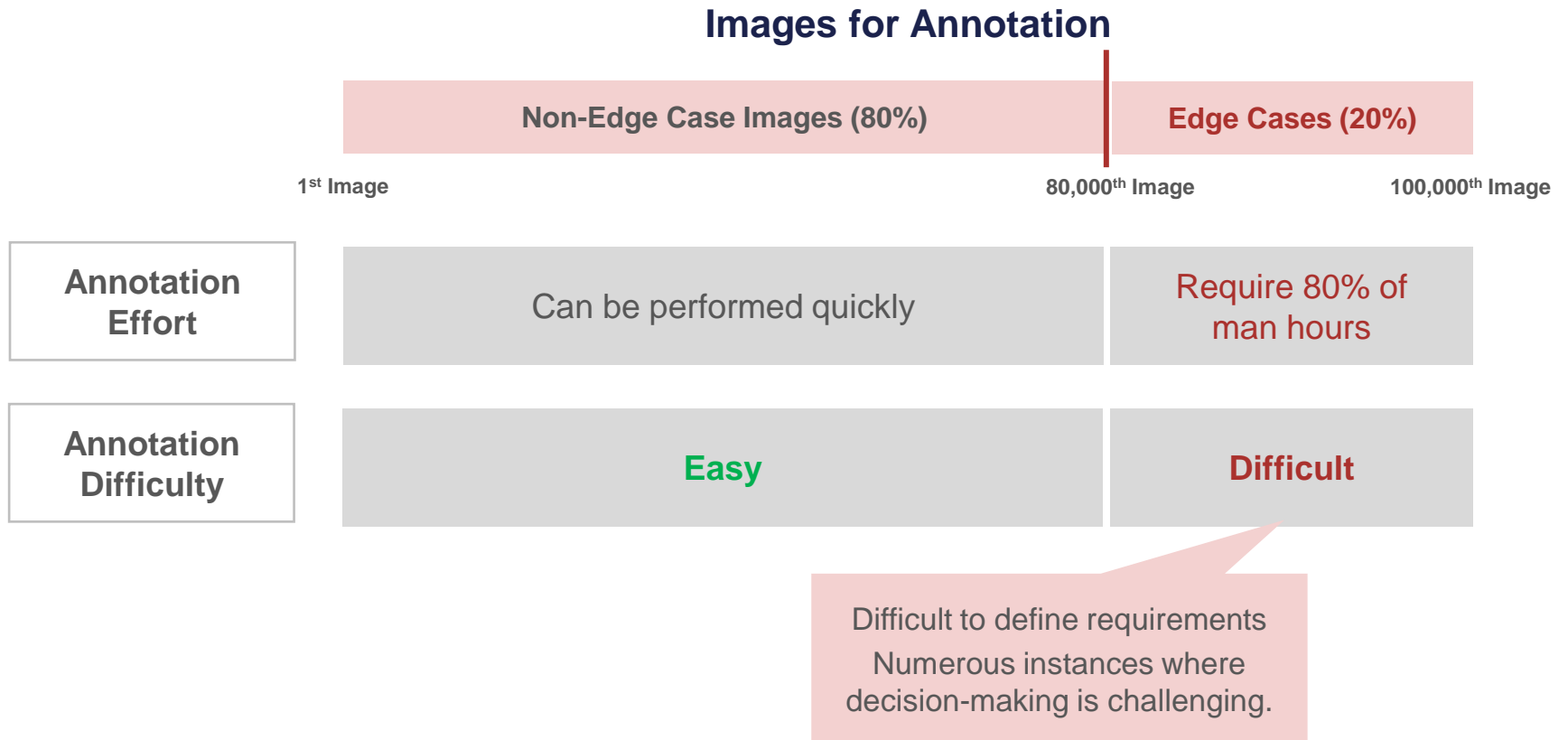
- Unusual plant species (e.g., irregular branching, different colors, deformation, etc.)
- Overlapping of objects (e.g., overlapping of plants/interference of soil and residues)

Satellite Imagery

- Undefinable objects (e.g., damaged buildings, distinguishing between a parking lot and a vacant lot, or differentiating between a warehouse and a factory, objects covered by trees/shadow of clouds or tall buildings)
- Ambiguous objects (difference between grass and trees/boundary of river)

Overview of Edge Case Annotation

Edge cases are difficult to annotate, requiring 80% man-hours to annotate 20% of the images in a project.

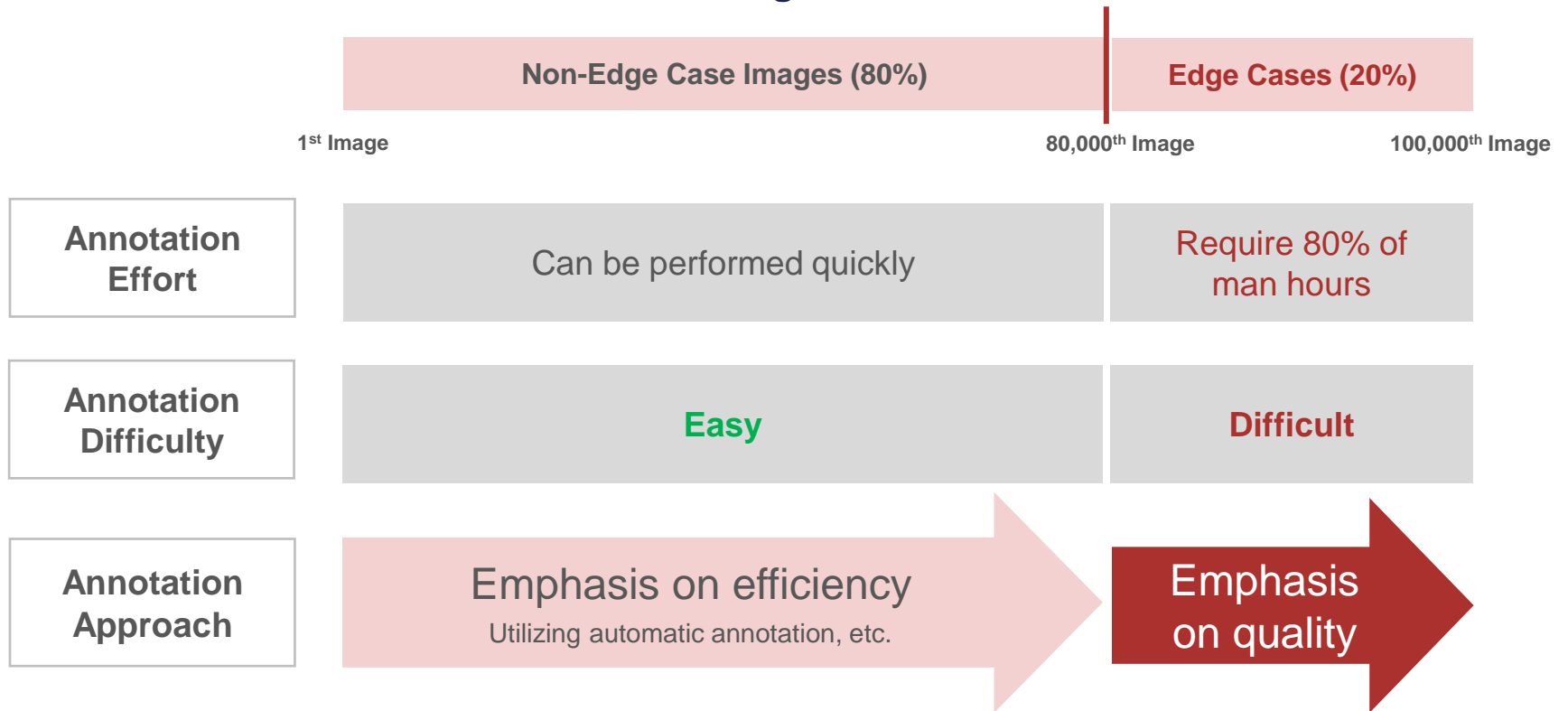


How to Approach Edge Case Annotation

It's essential to adapt annotation methods based on the complexity of the task.

For edge cases, you should **focus on quality rather than efficiency**.

Images for Annotation



Annotators for Edge Cases

A good annotator is essential for high-quality annotations.

Guaranteeing Consistency

Consistent annotations are essential for accurately capturing object features and improving AI performance. However, inexperienced annotators may **lack consistency**. Additionally, if different annotators interpret the task differently, the training data can become inconsistent.

Quality and Time Efficiency

Good annotators can **annotate efficiently**, resulting in reduced costs and effort. Also, the **ability to detect annotation problems early** minimizes rework.

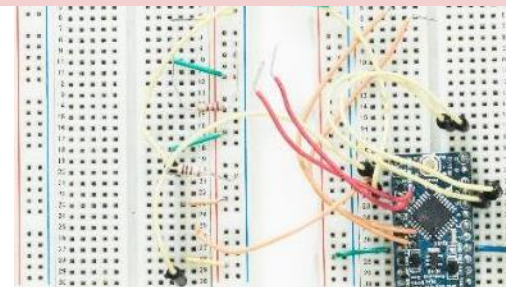
Ability to Handle Complex Requirements

A good annotator can maintain consistent quality even in challenging situations, such as **an image that contains many objects, when an image is unclear, or when the requirements are difficult to define**.

The background and object colors are similar, leading to missed objects during annotation.



Deflection and twisting of wiring make it difficult to define NG (No Good) lines, as they are hard to quantify.



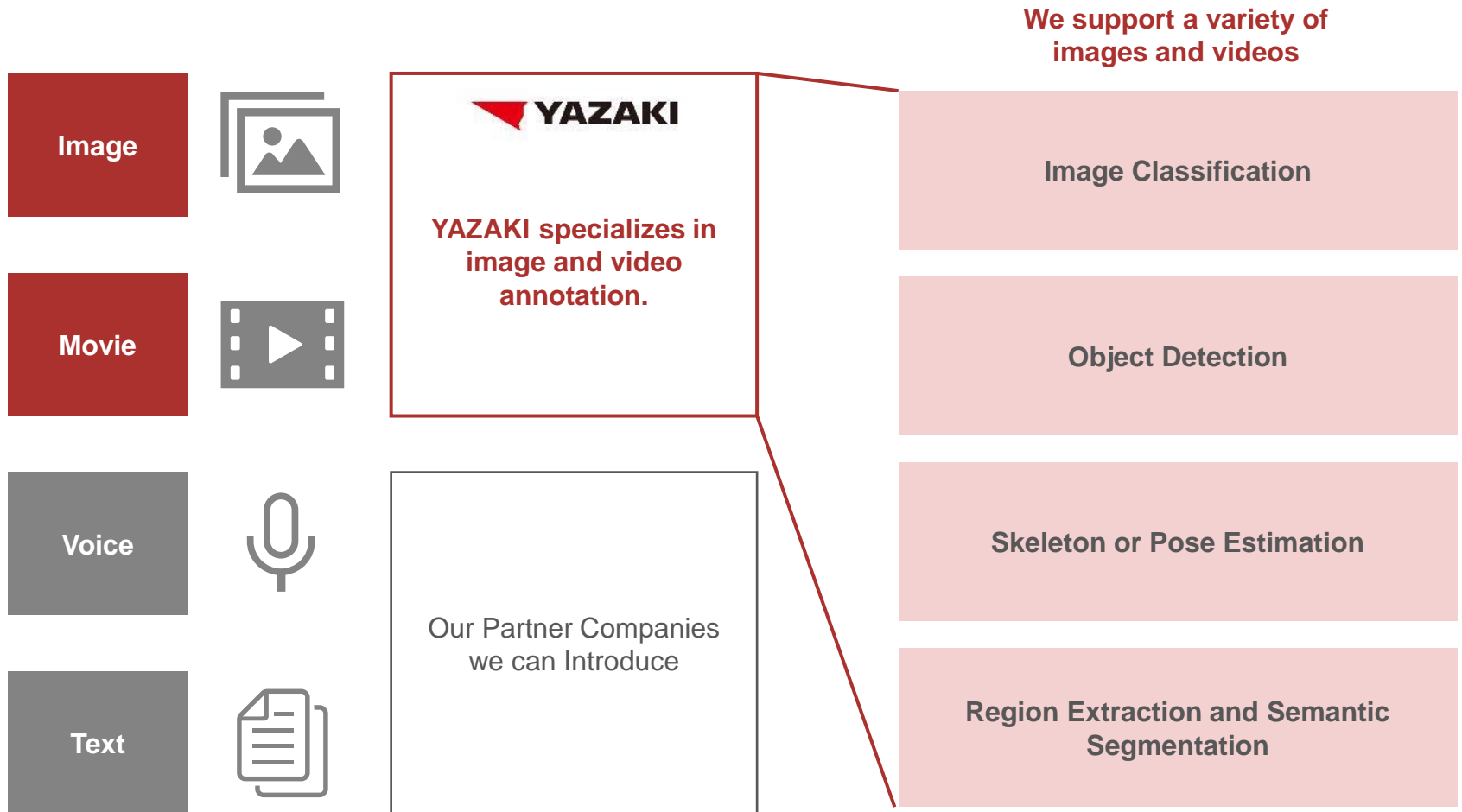
Annotator selection influences the quality of annotation!

Introducing Our Services



What is YAZAKI Image Annotation?

It is a service that performs image annotation work for customers.



Expanding to a Wide Variety of Industries

We have a track record of annotation in a wide variety of industries and applications.

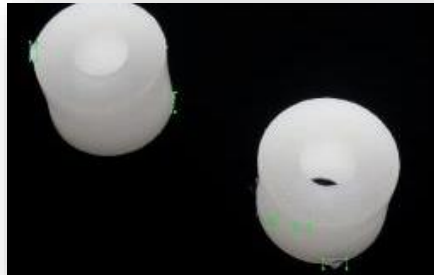
Autonomous Driving and Mobility

Autonomous driving/In-car cameras
Traffic and security cameras



Manufacturing and Factories

Visual inspection/Work analysis
Picking robots



Construction and Infrastructure

Drone Image/Infrastructure Inspection
Construction Site



Agriculture

Crops/Germination and Growth
Forest/Ocean



Satellite Imagery

Visual inspection/Work analysis
Picking robot



Drawings

Architectural/Product Drawing



*Image is an image

Secrets to Achieving Ultra High-Quality

To ensure ultra-high-quality annotations, YAZAKI employs trained specialists and has implemented a rigorous quality control system.



Annotations by YAZAKI employees



A quality control system unique to our core manufacturing industry



Ultra high-quality annotations

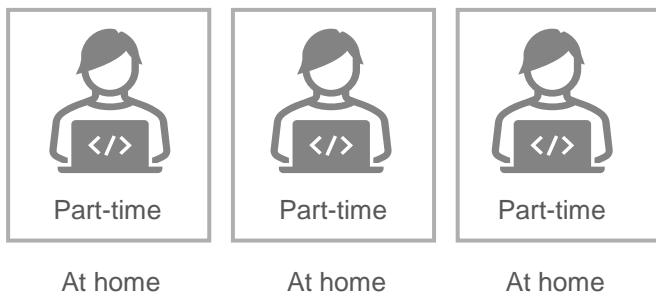
Key #1 to Achieving Ultra-High Quality--Annotations by YAZAKI Employees

Because annotations are performed by YAZAKI employees, we've achieved extremely high quality and responsiveness.

Other Annotation Companies

Various Workers

- Cloud workers, part-time workers, etc. carry out annotation work



Trained Employees

- Employees attend YAZAKI's unique annotation training program.
- Work is assigned **only** to employees passing the training program.



Employees work together in
a collaborative workspace

Commonality with Our Core Business

We apply the human resource management expertise developed in our core manufacturing business to our annotation processes.

Human resource management cultivated from over 80 years in manufacturing

Core Business

Wiring harness
manufacturing



Commonality

Large quantity &
high quality



People are key

Annotation



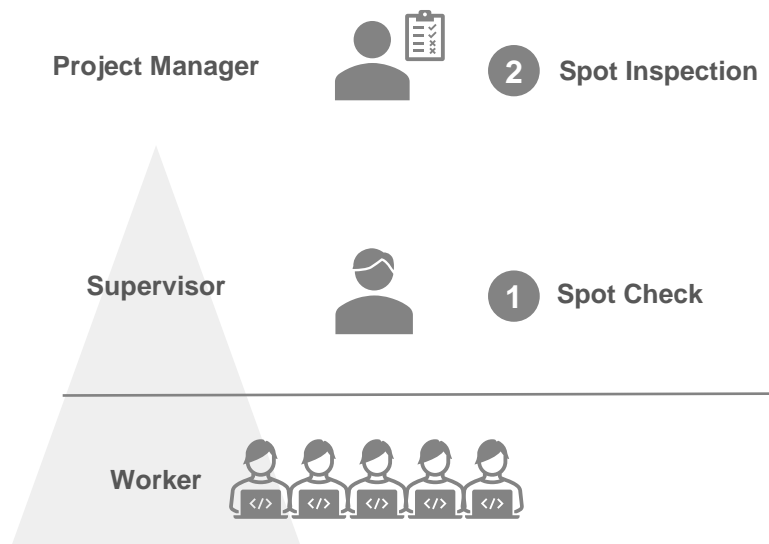
Key #2 to Achieving Ultra-High Quality — Quality Management System Unique to Our Core Manufacturing Industry

We implement triple quality checks, including a comprehensive full-volume inspection, as part of our standard process to ensure highly accurate deliverables.

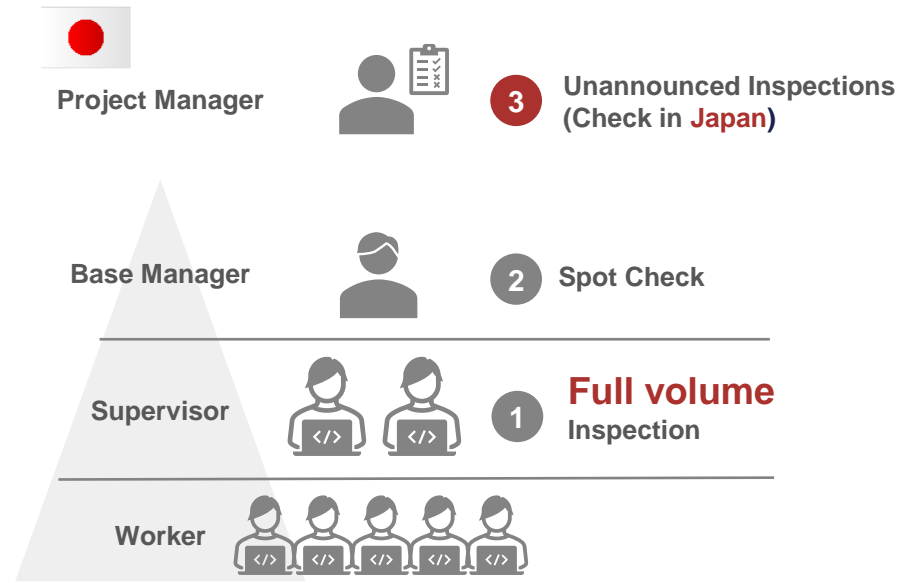
The number of inspections and the inspection system can be customized to suit your budget and specific requirements.

Other Companies' Annotation Services

Double Quality Checks with Spot Inspections Only



Triple Quality Checks, Including Full Inspection



System Can be Changed Flexibly

Why Choose YAZAKI?

We deliver high-quality annotations from skilled annotators at competitive prices, offering quick and flexible service.

Quality

For Unmatched Quality,
Choose Reliable YAZAKI

- ✓ Trained **"Employees"** who are competent in annotation work
- ✓ **Human resource management** cultivated over more than 80 years in the manufacturing industry
- ✓ **Inspection and triple check of all output**
- ✓ Annotation conducted in a collaborative workspace

Price

Leveraging YAZAKI Assets
Yields Reasonable Prices

- ✓ Utilizing YAZAKI's **existing sites and recruitment network**
- ✓ Proposing optimal plans within budget

Responsiveness






















Complicated and Difficult
Projects that
Utilize YAZAKI Employees

- ✓ Ability to build a system with hundreds of employees
- ✓ **Responding to highly challenging projects** that are difficult for other companies
- ✓ With all processes handled within the YAZAKI Group, we **ensure fast and efficient project management.**

Why Choose Us: A Side-by-Side Comparison

YAZAKI is your best choice when quality, security, and handling complex projects are critical.

For challenging tasks like edge cases, trust YAZAKI to deliver exceptional results.

				Company A		Company B	
Quality	Worker		<ul style="list-style-type: none"> Trained Employee 		<ul style="list-style-type: none"> Croudworkers 	?	<ul style="list-style-type: none"> Outsourcing contractors (BPO, etc.)
	System		<ul style="list-style-type: none"> Full volume inspection Triple check 		<ul style="list-style-type: none"> Spot checks Double check 		<ul style="list-style-type: none"> Spot checks Double check
Price			<ul style="list-style-type: none"> Leveraging existing YAZAKI assets to enable reasonable pricing 		<ul style="list-style-type: none"> Control costs by using cloud workers 		<ul style="list-style-type: none"> Provided at low cost using tools
Delivery Time			<ul style="list-style-type: none"> Workers in multiple timezones 		<ul style="list-style-type: none"> Building a system with many cloud workers 		<ul style="list-style-type: none"> Takes time to build a system
High Difficulty Level			<ul style="list-style-type: none"> Extensive track record in complex and difficult projects 		<ul style="list-style-type: none"> Skill of workers varies in difficult projects 		<ul style="list-style-type: none"> Good at low difficulty projects where automatic annotations can be applied
Security			<ul style="list-style-type: none"> Full security system developed in the manufacturing industry 		<ul style="list-style-type: none"> Work by telecommuters 		<ul style="list-style-type: none"> Outsourced contractors implement security measures
Specify Tools			<ul style="list-style-type: none"> Use the most appropriate tools for each project 		<ul style="list-style-type: none"> Use in-house developed tools 		<ul style="list-style-type: none"> Use in-house developed tools

Responding to Highly Difficult Projects

Skilled annotators are essential for handling highly complex projects. YAZAKI employees deliver high-quality annotations, even for the most challenging tasks.

Blurry Images

- ✓ Images of dark or rainy conditions
- ✓ Poor resolution Images



Multiple Object Images

- ✓ Many objects
- ✓ Small objects



Vague Images

- ✓ Difficult to make quantitative judgments
- ✓ Many exceptional cases



YAZAKI employees excel in managing complex and highly challenging projects.

Get Started with a Free Trial!

YAZAKI Image Annotation

With over 80 years of commitment to quality control,
we deliver reliable annotations you can trust.

Inquiries via the Web

<https://service.yazaki.ai/en/annotation>



Inquiries via Email

Annotation_sales@yazaki.ai

Please provide your company name, name, email address and
phone number.