

ImageInsight - Knowledge Base (KB-02)

Knowledge Base 02 builds upon **Knowledge Base 01** with seven enhancements, refining algorithms and governance features while adding extensibility and compliance controls.

Enhanced Adaptive Feature Matching

Label: Algorithm Selector

Field: similarity.algorithm

Configuration: Improved ORB SuperPoint hybrid for higher robustness on noisy inputs, fallback logic now tunable.

Details: Improves robustness over **Knowledge Base 01** by adding tunable fallback logic.

Extended Perceptual Similarity Metrics

Label: Similarity Metric

Field: similarity.metric

Configuration: Added FSIM option, threshold ranges now configurable per-project, 0.6–0.99.

Details: Improved flexibility over **Knowledge Base 01** with additional metric option.

Distributed GPU Scaling

Label: Acceleration Mode

Field: runtime.acceleration

Configuration: Cluster-aware Auto mode with configurable GPU pool size, device affinity supported.

Details: Introduces cluster support for multi-GPU scaling.

Custom Preprocessing Plugins

Label: Pipeline Plugins

Field: preprocess.pipeline.plugins

Configuration: Allow injection of custom Python modules in pipeline with schema validation.

Details: Enables extensibility with user-defined preprocessing steps.

Advanced Redaction Policies

Label: Redaction Policy

Field: compliance.redaction.policy

Configuration: Region-based rules with regex-driven OCR filtering, e.g., redact credit card numbers.

Details: Expands compliance by supporting text-driven rules.

Result Retention Policies

Label: Retention Days

Field: governance.retention.days

Configuration: Integer 1–365, default 90, with purge-on-expiry toggle.

Details: Defines how long comparison results are stored before auto-deletion.

Audit Logging

Label: Audit Enable

Field: governance.audit.enabled

Configuration: true false, default true, logs shipped via syslog or JSON to SIEM.

Details: Ensures compliance with enterprise audit requirements.