

MaxTune-SD_TSD_Kapitel-2.4_v2.1 – Technical System Documentation

Adaptive Runtime Policies and Resource Management

Version: 2.1 Effective from: 25.04.2025 Status: 100/100 – Approved Note:
Compatibility with Max systems is based on documented interfaces, not fixed version bindings.

2.4 Adaptive Runtime Policies and Resource Management

MaxTune enforces adaptive runtime policies to manage learning resource consumption dynamically, aligned with system load, trust levels, and security posture.

Policies can:

- adjust container priority based on stakeholder-defined urgency
- pause or deprioritize low-value learning under audit load
- reallocate memory or compute cycles during critical operations

These runtime adaptations are not arbitrary. They are bound by policy ceilings and rule-based exceptions defined in MaxReg. Runtime agents are prohibited from exceeding their authorized resource envelopes.

Each adjustment must:

- be pre-authorized or rule-predicted
- be logged for MaxAudit oversight
- be reversible on system rollback or policy override

MaxTune thereby becomes an economically and ethically sustainable engine. It enables constant learning without overloading host systems or violating operational constraints.

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