MPC-01 v2: ProcessCapsule Core Structure (Extended)

System: MaxProcess

Module ID: MPC-01

Version: 2.0

Title: ProcessCapsule Core Structure (Extended)

Classification: Capsule Specification Module

Responsible: TBYD Architectural Capsule Team

License Model: TBYD License v2.2 / Audit Addendum A

Standards Reference: ISO/IEC 15408, TBYD Capsule Protocol v2.1

Applicability: MaxOneOpen v4.1+

# 1. Purpose

This module defines the structural elements, execution annotations, and trace anchors of a ProcessCapsule in its extended form. Version 2.0 adds declarative execution fields for integration awareness without introducing runtime dependence.

# 2. Field Overview

Each ProcessCapsule in version 2.0 consists of the following required fields:  
- capsule\_id: globally unique and cryptographically signed  
- step\_id: local reference ID for human or system interpretation  
- step\_type: ENUM { decision, delegation, action, pause, verify }  
- trigger\_condition: rule, capsule state, or role-based input  
- assigned\_role: reference to role capsule (via MaxWorkRoles)  
- fallback\_path: capsule reference or NONE (refusal/skip handling)  
- audit\_mode: ENUM { silent, trace, public }  
- governance\_scope: treaty-binding reference (if enforced)  
- delegation\_allowed: BOOL + optional list of eligible delegates  
- trace\_anchor: reference to audit log capsule (MaxAudit)  
- capsule\_state: ENUM { proposed, active, executed, refused, frozen }  
- execution\_mode: ENUM { declarative, remote-bound, static-policy }  
- integration\_reference: OPTIONAL URL or capsule link to integration specification

# 3. Signature and Integrity

All ProcessCapsules are cryptographically signed and verified at runtime or upon audit. Version 2.0 explicitly separates logic-level execution from runtime delegation, ensuring structural trust without requiring embedded runtime.

# 4. Capsule Example (v2 Format)

capsule\_id: PROC-4412-STEP-005  
step\_type: action  
trigger\_condition: capsule(PROC-4412-STEP-004).state == executed  
assigned\_role: ROLE-SECURITY-OFFICER  
fallback\_path: PROC-4412-STEP-ERR01  
audit\_mode: trace  
capsule\_state: active  
execution\_mode: declarative  
integration\_reference: bridge://integration/sys-pipeline-X

# 5. CTO Summary

This upgraded specification aligns ProcessCapsules with integration- and audit-aware usage without compromising MaxProcess principles. Execution logic remains declarative, externally referenceable, and fully encapsulated.