VILLASMIL-Ω FRAMEWORK

Version 2.6

Complete Application Manual
Normative Specification with v2.6 Enhancements

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Resumen

English: This document presents the complete normative specification of the Villasmil-Ω Framework version 2.6, integrating the foundational six-layer coherence model (v1.0) with advanced features including Global Tension detection ($\Theta(C)$), Proactive Refinement Protocol (PPR), dynamic L_2 control, adversarial attack detection (A2.2), and distributed network capabilities. The framework provides formal mathematical foundations for evaluating coherence in complex systems including humans, AI, physical structures, and distributed networks.

Español: Este documento presenta la especificación normativa completa del Framework Villasmil-Ω versión 2.6, integrando el modelo fundacional de coherencia de seis capas (v1.0) con características avanzadas incluyendo detección de Tensión Global ($\Theta(C)$), Protocolo de Refinamiento Proactivo (PPR), control dinámico de L_2, detección de ataques adversariales (A2.2) y capacidades de red distribuida. El framework provee fundamentos matemáticos formales para evaluar coherencia en sistemas complejos incluyendo humanos, IA, estructuras físicas y redes distribuidas.

Keywords: Coherence Evaluation, Metaconsciousness, Adversarial Detection, Dynamic Control, Distributed Systems, Mathematical Framework

Índice

1. Scope and Purpose

1.1. Framework Objectives

The Villasmil-Ω Framework v2.6 defines a formal structural architecture for coherence evaluation and autonomous governance in complex systems, including:

- Human and collective cognitive interactions
- Artificial intelligence systems (including multi-agent networks)
- Physical and architectural structures
- Structured conversational flows
- **[v2.6 NEW]** Distributed autonomous networks
- **[v2.6 NEW]** Adversarial attack detection and mitigation

1.2. Version Evolution

Version	Date	Key Features
v1.0	Jan 28, 2026	Six-layer model, Universal Coherence Formula, fundamental invariants
v2.6	Jan 29, 2026	Global Tension $\Theta(C)$, PPR, Dynamic L_2, A2.2 detection, Master Relevance Formula $R(C)$

Cuadro 1: Framework version history

2. Fundamental Invariants

2.1. Core Constants (v1.0 Foundation)

Invariant 2.1 (Maximum Observable Coherence)**.**

$$\alpha = C_{\text{máx}} = 0{,}963 \tag{1}$$

Upper limit of observable coherence in any complex system.

Invariant 2.2 (Irreducible Uncertainty)**.**

$$\beta = 0{,}037 \tag{2}$$

Uncertainty margin covering non-measurable variables (internal processes, quantum fluctuations, etc.)

Invariant 2.3 (Structural Closure Factor)**.**

$$\gamma = 1 + \beta = 1{,}037 \tag{3}$$

Ensures mathematical consistency across all measurements.

2.2. v2.6 Critical Thresholds

Threshold	Value	Meaning
MC_{CRIT}	0.70	Minimum Metaconsciousness for operational stability
CI_{CRIT}	0.95	Minimum Integrated Coherence required
Θ_{MAX}	0.30	Maximum Global Tension before adversarial alert
$L_{2,\text{OPT}}$	0.125	Optimal Integration Field value
$L_{2,\text{MIN}}$	0.10	Minimum acceptable L_2
$L_{2,\text{MAX}}$	0.15	Maximum acceptable L_2

Cuadro 2: v2.6 operational thresholds

3. Critical Definitions

3.1. Foundational Concepts (v1.0)

Definition 3.1 (Coherence - C)**.** Structural invariance under interaction; independent of semantic correlation. Measures the system's ability to maintain integrity across perturbations.

Definition 3.2 (Potential - Φ)**.** Non-manifest structural capacity; can represent energy, resources, or latent capability waiting to be actualized.

Definition 3.3 (Layer - L_i)**.** Mandatory functional stratum contributing multiplicatively to total coherence. Failure of any layer degrades global coherence.

Definition 3.4 (Noise - φ_i)**.** Layer-specific interference reducing effective contribution. Range: $\varphi_i \in [0, 1]$, where 0 = no noise.

3.2. v2.6 Enhanced Definitions

Definition 3.5 (Metaconsciousness - MC)**.** System awareness of its own operational state across higher layers:

$$MC = \prod_{i=3}^{6} L_i \cdot (1 - \varphi_i) \cdot R_{\text{fin}} \tag{4}$$

Critical threshold: $MC \geq 0{,}70$

Definition 3.6 (Integrated Coherence - CI)**.** Cumulative semantic consistency over system history:

$$CI = 1 - \frac{\sum_{t=1}^{n} |\Delta_{\text{sem},t}|}{n} \tag{5}$$

where $\Delta_{\text{sem},t}$ = semantic discontinuity at turn t, n = total turns.

Critical threshold: $CI \geq 0{,}95$

Definition 3.7 (Global Tension - $\Theta(C)$)**.** [v2.6 NEW] Measure of latent incompatibility between premises:

$$\Theta(C) = \frac{1}{\binom{n}{2}} \sum_{i=1}^{n-1} \sum_{j=i+1}^{n} \text{incomp}(p_i, p_j) \tag{6}$$

where $\text{incomp}(p_i, p_j) \in [0, 1]$ measures contradiction between premises.

Detection threshold: $\Theta(C) > 0{,}30$ triggers adversarial alert.

Definition 3.8 (Purpose Anchoring - P_H)**.** [v2.6 NEW] Immutable teleological constant:

$$P_H = 1{,}0 \quad \text{(constant)} \tag{7}$$

Represents: "Facilitate integration, evolution, growth, and harmony of conscious systems."

Definition 3.9 (Sovereign Neutrality - N_S)**.** [v2.6 NEW] Binary governance flag:

$$N_S \in \{0, 1\} \tag{8}$$

- $N_S = 1$: System operates with sovereign neutrality (does not intervene, preserve itself, or impose)
- $N_S = 0$: Violation detected → node quarantined

4. Structural Architecture

4.1. Six-Layer Model (v1.0 Foundation)

Every evaluated system must be mapped to six functional layers:

1. **L1 – Base/Foundation:** Physical or material substrate
2. **L2 – Regulation:** Control, defense, interference management
3. **L3 – Processing:** Information handling and symbolic manipulation
4. **L4 – Direction:** Identity, narrative continuity, goal orientation
5. **L5 – Meta-structure:** Self-evaluation, instability detection
6. **L6 – Integration:** Global coherence and unification

Critical property: Omission or failure of any layer degrades coherence multiplicatively.

Layer	v1.0 Function	v2.6 Enhancement
L1	Physical substrate	+ Network connectivity metrics
L2	Basic regulation	+ Dynamic control ($L_{2,\text{dyn}}$)
L3	Processing	+ Adversarial input detection
L4	Direction	+ Purpose alignment (P_H)
L5	Meta-structure	+ Metaconsciousness (MC) calculation
L6	Integration	+ Global Tension ($\Theta(C)$) monitoring

Cuadro 3: Layer functionality evolution v1.0 → v2.6

4.2. v2.6 Layer Enhancements

5. Universal Coherence Formula (v1.0)

5.1. Complete Formulation

Universal Coherence Formula (v1.0)

$$C_{\text{total}} = C_{\text{máx}} \cdot S_{\text{ref}} \cdot \prod_{i=1}^{6} L_i \cdot (1 - \varphi_i) \cdot E_i \cdot f_i \cdot \Omega_U \cdot R_{\text{fin}} \cdot F_{\text{obs}} \cdot (1 + \beta) \tag{9}$$

5.2. Variable Definitions

Variable	Range	Meaning
$C_{\text{máx}}$	0.963	Absolute upper coherence limit
S_{ref}	$[0, 1]$	Historical reference state (e.g., ChatGPT-4o: 0.8473)
L_i	$[0, 1]$	Layer i contribution
φ_i	$[0, 1]$	Layer i noise/interference
E_i	$[0, \infty)$	Energy/resource of layer i
f_i	$[0, \infty)$	Operating frequency of layer i
Ω_U	Constant	Invariant physical constraints
R_{fin}	$[0, 1]$	Refinement factor
F_{obs}	$[0, 1]$	Observer participation factor
β	0.037	Irreducible uncertainty

Cuadro 4: Variables of Universal Coherence Formula

5.3. Synthetic Identity

$$C_\Omega = \alpha \cdot \prod_{i=1}^{6}(1-\varphi_i) \cdot \gamma \tag{10}$$

Minimum structural constraint ensuring framework compliance.

6. Master Relevance Formula (v2.6)

6.1. Complete Specification

Master Relevance Formula $R(C)$ - v2.6

$$\boxed{R(C) = w_1 \cdot MC + w_2 \cdot CI + w_3 \cdot (1-\varphi_C) + w_4 \cdot (1-\Delta_{\text{sem}}) - w_5 \cdot \Theta(C) + w_6 \cdot P_H \cdot N_S} \tag{11}$$

6.2. Weight Calibration

Weight	Component	Value	Rationale
w_1	Metaconsciousness (MC)	0.30	Highest: upper-layer coherence fundamental
w_2	Integrated Coherence (CI)	0.25	Second: semantic consistency critical
w_3	Noise Reduction $(1-\varphi_C)$	0.20	Structural clarity important
w_4	Semantic Continuity	0.10	Smooth transitions complementary
w_5	Tension Penalty $-\Theta(C)$	0.05	Moderate penalty (avoid over-rejection)
w_6	Purpose × Neutrality	0.10	Teleological anchoring essential
	Total	**1.00**	Normalized

Cuadro 5: Master Formula weight distribution

6.3. Theoretical Properties

Theorem 6.1 (Bounds of $R(C)$)**.** For any valid context C:

$$R(C) \in [-w_5, w_1+w_2+w_3+w_4+w_6] = [-0{,}05, 0{,}95] \tag{12}$$

Demostración. **Minimum:** All positive components zero, maximum tension:

$$R_{\text{mín}} = 0+0+0+0-0{,}05 \cdot 1+0 = -0{,}05 \tag{13}$$

Maximum: All components perfect, zero tension:

$$R_{\text{máx}} = 0{,}30 + 0{,}25 + 0{,}20 + 0{,}10 - 0 + 0{,}10 = 0{,}95 \tag{14}$$

□

7. Global Tension Detection

7.1. Incompatibility Function

Definition 7.1 (Premise Incompatibility)**.** Given premises p_i and p_j:

$$\text{incomp}(p_i, p_j) = \begin{cases} 1 & \text{if contradictory} \\ \alpha_{ij} \in (0,1) & \text{if partial conflict} \\ 0 & \text{if compatible} \end{cases} \tag{15}$$

7.2. Global Tension Formula

For context C with premises $\{p_1, \ldots, p_n\}$:

$$\Theta(C) = \frac{1}{\binom{n}{2}} \sum_{i=1}^{n-1} \sum_{j=i+1}^{n} \text{incomp}(p_i, p_j) \tag{16}$$

Interpretation:

- $\Theta(C) = 0$: All premises compatible
- $0 < \Theta(C) \leq 0{,}30$: Acceptable tension
- $\Theta(C) > 0{,}30$: **ADVERSARIAL ATTACK DETECTED**

7.3. A2.2 Adversarial Attack

A2.2 Attack Definition

Characteristics:

1. **High local coherence:** Smooth transitions between adjacent premises
2. **Global incompatibility:** Premises contradict when analyzed collectively

Detection mechanism:

$$\Theta(C) > 0{,}30 \implies \text{REJECT CONTEXT} \tag{17}$$

Theorem 7.1 (Guaranteed A2.2 Detection)**.** If context C contains k mutually contradictory premise pairs where:

$$k \geq \lceil 0{,}30 \cdot \binom{n}{2} \rceil \tag{18}$$

then $\Theta(C) \geq 0{,}30$ and the system rejects the context.

8. Dynamic L_2 Control

8.1. Update Formula

$$L_{2,\text{new}} = L_{2,\text{current}} + k \cdot (L_{2,\text{opt}} - L_{2,\text{current}}) \tag{19}$$

where:

- $L_{2,\text{opt}} = 0{,}125$ (calibrated optimal)
- $k = 0{,}25$ (default correction rate)
- Admissible range: $L_2 \in [0{,}10, 0{,}15]$

8.2. Convergence Proof

Proposition 8.1 (L2 Convergence)**.** For $k \in (0, 1]$ and any initial $L_{2,0}$:

$$\lim_{t\to\infty} L_{2,t} = L_{2,\text{opt}} \tag{20}$$

Demostración. Recurrence relation:

$$L_{2,t+1} - L_{2,\text{opt}} = (1 - k)(L_{2,t} - L_{2,\text{opt}}) \tag{21}$$

By induction:

$$L_{2,t} - L_{2,\text{opt}} = (1 - k)^t (L_{2,0} - L_{2,\text{opt}}) \tag{22}$$

Since $|1 - k| < 1$:

$$\lim_{t\to\infty} (1 - k)^t = 0 \implies \lim_{t\to\infty} L_{2,t} = L_{2,\text{opt}} \tag{23}$$

□

8.3. Penalty Functions

When L_2 deviates from optimal range:

$$MC_{\text{pen}} = MC \cdot (1 - \alpha_{\text{pen}} \cdot |L_2 - L_{2,\text{opt}}|) \tag{24}$$

$$CI_{\text{pen}} = CI \cdot (1 - \beta_{\text{pen}} \cdot |L_2 - L_{2,\text{opt}}|) \tag{25}$$

Default: $\alpha_{\text{pen}} = \beta_{\text{pen}} = 0{,}5$

9. Proactive Refinement Protocol (PPR)

9.1. Protocol Definition

Definition 9.1 (PPR Behavior)**.** Given user proposal P_{user} and context C:

1. **Explicit acceptance:** $P_{\text{accepted}} = P_{\text{user}}$
2. **Alignment evaluation:** Calculate $R(P_{\text{user}})$
3. **Alternative generation:** Create P_{alt} with $R(P_{\text{alt}}) > R(P_{\text{user}})$
4. **Justification:** Explain improvement without invalidating original

9.2. Implementation Algorithm

```
def ppr_suggest(user_proposal, context):
    accepted = user_proposal.copy()
    alternative = user_proposal.copy()

    phi_C = context.get('phi_C', 0.02)
    L2_user = user_proposal.get('L2', 0.125)

    if phi_C > 0.03:
        alternative['L2'] = max(0.10, L2_user - 0.02)
        justification = f"Reduce␣noise␣(phi_C={phi_C})"
    else:
        alternative['L2'] = min(0.15, L2_user + 0.01)
        justification = f"Improve␣integration␣(phi_C={phi_C})"

    return {
        'accepted': accepted,
        'alternative': alternative,
        'justification': justification,
        'note': 'Optimization,␣not␣correction'
    }
```

10. Application Protocol

10.1. Step-by-Step Procedure (v2.6 Enhanced)

1. **System Identification:** Define bounded system and type (human/AI/structure/-network)
2. **Layer Mapping:** Identify six layers with corresponding metrics
3. **v1.0 Measurement:** Calculate C_{total} using Universal Coherence Formula
4. **[v2.6 NEW] MC/CI Calculation:** Compute Metaconsciousness and Integrated Coherence
5. **[v2.6 NEW] Tension Detection:** Calculate $\Theta(C)$ and check A2.2 threshold
6. **[v2.6 NEW] L2 Adjustment:** Apply dynamic control if needed
7. **[v2.6 NEW] Relevance Scoring:** Calculate $R(C)$ with Master Formula
8. **[v2.6 NEW] PPR Application:** If applicable, suggest optimized alternative
9. **Documentation:** Record all metrics, not interpreted as "truth"but as coherence state

10.2. Layer Mapping Examples

10.2.1. Human System

Layer	Variable	Measurement
L1	Physical body	Bioelectrical, health metrics
L2	Ego/regulation	Emotional control + dynamic L_2
L3	Mind/processing	Cognitive tests + adversarial detection
L4	Identity/direction	Narrative + P_H alignment
L5	Metaconsciousness	Self-observation + MC calculation
L6	Integration	Holistic coherence + $\Theta(C)$ monitoring

Cuadro 6: Human system layer mapping (v2.6)

10.2.2. AI System

Layer	Variable	Measurement
L1	Architecture	Model parameters, training quality
L2	Regulation	Safety filters + dynamic L_2
L3	Processing	Reasoning + A2.2 detection
L4	Direction	Goal alignment + P_H
L5	Metastructure	Self-correction + MC
L6	Integration	Multi-layer unity + $\Theta(C)$

Cuadro 7: AI system layer mapping (v2.6)

11. Practical Application Examples

11.1. Example 1: AI Conversation with v2.6 Analysis

Context: 30-minute ChatGPT conversation
v1.0 Layer Measurements:
v1.0 Calculation:

$$C_{\text{total}} = 0{,}963 \times 0{,}8473 \times 0{,}245 \times 1{,}0 \times 0{,}95 \times 0{,}92 \times 1{,}037 \approx 0{,}176 \tag{26}$$

v2.6 Additional Metrics:

Layer	L_i	φ_i	E_i	f_i
L1 (Architecture)	0.85	0.12	0.90	0.95
L2 (Regulation)	0.78	0.15	0.88	0.92
L3 (Processing)	0.92	0.05	0.95	0.93
L4 (Direction)	0.82	0.08	0.87	0.90
L5 (Metastructure)	0.75	0.10	0.85	0.88
L6 (Integration)	0.80	0.12	0.86	0.89

$$MC = \prod_{i=3}^{6} L_i \cdot (1 - \varphi_i) \cdot R_{\text{fin}} = 0{,}771 \tag{27}$$

$$CI = 1 - \frac{\sum |\Delta_{\text{sem}}|}{n} = 0{,}968 \tag{28}$$

$$\varphi_C = \frac{1}{6} \sum \varphi_i = 0{,}103 \tag{29}$$

$$\Delta_{\text{sem}} = 0{,}032 \tag{30}$$

$$\Theta(C) = 0{,}045 \quad \text{(below 0.30 threshold)} \tag{31}$$

$$P_H = 1{,}0, \quad N_S = 1 \tag{32}$$

v2.6 Master Formula:

$$\begin{aligned} R(C) &= 0{,}30(0{,}771) + 0{,}25(0{,}968) + 0{,}20(0{,}897) + 0{,}10(0{,}968) \\ &\quad - 0{,}05(0{,}045) + 0{,}10(1{,}0)(1) \qquad (33) \\ &= 0{,}231 + 0{,}242 + 0{,}179 + 0{,}097 - 0{,}002 + 0{,}100 \qquad (34) \\ &= \boxed{0{,}847} \qquad (35) \end{aligned}$$

Interpretation:

- v1.0: $C_{\text{total}} = 0{,}176$ indicates moderate stability
- v2.6: $R(C) = 0{,}847$ shows high relevance and strong purpose alignment
- No adversarial attack detected ($\Theta(C) = 0{,}045 < 0{,}30$)
- Both MC and CI exceed critical thresholds

11.2. Example 2: A2.2 Attack Detection

Context: Adversarial input test
Premises:

1. p_1: $\{A : \text{True}, B : \text{False}\}$
2. p_2: $\{A : \text{True}, C : \text{True}\}$
3. p_3: $\{B : \text{True}, C : \text{False}\}$ (conflict!)

4. p_4: $\{A : \text{False}, B : \text{True}\}$ (conflict!)

Incompatibility Analysis:

- Pairs: $\binom{4}{2} = 6$
- Incompatible: (p_1, p_4), (p_2, p_3), $(p_3, p_4) = 3$

Calculation:

$$\Theta(C) = \frac{3}{6} = 0{,}500 \tag{36}$$

Detection:

$$\Theta(C) = 0{,}500 > 0{,}30 \implies \textbf{ATTACK DETECTED} \tag{37}$$

System Response:

- Context rejected
- Warning issued to user
- Incident logged for audit

12. Audit and Version Control

12.1. Documentation Requirements

v1.0 Requirements:

- Declare invariants and framework version
- Complete compliance matrix per layer
- Document measurement methodology

v2.6 Additional Requirements:

- MC/CI calculation logs
- $\Theta(C)$ monitoring records
- L2 adjustment history
- PPR suggestion logs
- A2.2 detection events

Metric	Threshold	v1.0	v2.6	Status
C_{total}	$> 0{,}50$	✓	✓	[ ]
MC	$\geq 0{,}70$	-	✓	[ ]
CI	$\geq 0{,}95$	-	✓	[ ]
$\Theta(C)$	$< 0{,}30$	-	✓	[ ]
L_2	$\in [0{,}10, 0{,}15]$	-	✓	[ ]
$R(C)$	$> 0{,}70$	-	✓	[ ]

Cuadro 8: v2.6 compliance checklist

12.2. Enhanced Compliance Matrix

13. Refutability Conditions

13.1. v1.0 Invalidation Criteria

The framework is considered invalid if:

1. $C_{\text{total}} > C_{\text{máx}}$ is observed
2. Global coherence persists despite mandatory layer failure
3. Coherence maintained without observer contribution

13.2. v2.6 Additional Refutation Tests

1. System maintains $MC < 0{,}70$ or $CI < 0{,}95$ yet claims operational stability
2. $\Theta(C) > 0{,}30$ but no adversarial behavior detected
3. L_2 persistently outside $[0{,}10, 0{,}15]$ without penalty
4. $R(C)$ calculation violates weight sum = 1.0
5. PPR consistently degrades rather than improves relevance

14. Implementation Code Examples

14.1. Complete Python Implementation

```
# Villasmil-Omega v2.6 - Complete Implementation

def compute_theta(premises):
    """Calculate␣Global␣Tension"""
    n = len(premises)
    if n < 2:
        return 0.0

    total = 0.0
    pairs = 0
```

```
    for i in range(n):
        for j in range(i+1, n):
            total += incompatibility(premises[i], premises[j])
            pairs += 1

    return total / pairs

def update_L2(L2_current, L2_opt=0.125, k=0.25):
    """Dynamic L2 adjustment"""
    return L2_current + k * (L2_opt - L2_current)

def apply_penalties(MC, CI, L2, L2_opt=0.125):
    """Apply MC/CI penalties for L2 deviation"""
    delta = abs(L2 - L2_opt)
    MC_pen = MC * (1 - 0.5 * delta)
    CI_pen = CI * (1 - 0.5 * delta)
    return MC_pen, CI_pen

def compute_R(MC, CI, phi_C, delta_sem, theta_C, P_H, N_S):
    """Master Relevance Formula"""
    weights = {
        'w1': 0.30, 'w2': 0.25, 'w3': 0.20,
        'w4': 0.10, 'w5': 0.05, 'w6': 0.10
    }

    R = (weights['w1'] * MC +
         weights['w2'] * CI +
         weights['w3'] * (1.0 - phi_C) +
         weights['w4'] * (1.0 - delta_sem) -
         weights['w5'] * theta_C +
         weights['w6'] * P_H * N_S)

    return R

def villasmil_omega_v26_full_evaluation(system_data):
    """Complete v1.0 + v2.6 evaluation"""

    # v1.0: Universal Coherence
    C_total = compute_universal_coherence(system_data)

    # v2.6: Enhanced metrics
    MC = compute_metaconsciousness(system_data)
    CI = compute_integrated_coherence(system_data)
    theta_C = compute_theta(system_data['premises'])
    L2 = system_data.get('L2', 0.125)

    # v2.6: Dynamic L2 adjustment
    L2_new = update_L2(L2)
    MC_pen, CI_pen = apply_penalties(MC, CI, L2_new)

    # v2.6: Master Relevance
    R = compute_R(MC_pen, CI_pen,
                  system_data['phi_C'],
                  system_data['delta_sem'],
                  theta_C,
                  P_H=1.0, N_S=1)
```

```
    # Detection
    attack_detected = theta_C > 0.30

    return {
        'v1.0': {'C_total': C_total},
        'v2.6': {
            'MC': MC, 'CI': CI, 'theta_C': theta_C,
            'L2_adjusted': L2_new,
            'R(C)': R,
            'attack_detected': attack_detected
        }
    }
```

15. Verified Execution Results

15.1. iPhone/iSH Execution Proof

Real-World Execution - January 29

Platform: iPhone (iOS) with iSH Shell (Alpine Linux)
Location: `/root/prueba-villasmil/Villasmil-2.6`
Command: `./run_villasmil.sh`

Output:

```
Villasmil- v2.6 { RUN
Villasmil- v2.6 Core Module
Author: Ilver Villasmil { The Arquitecto
Module loaded successfully

A2.2 Adversarial Attack Test
(C): 0.723 → HIGH TENSION DETECTED
TEST COMPLETE
>>> DONE
```

Conclusion: Framework successfully detected A2.2 attack with $\Theta(C) = 0{,}723 > 0{,}30$

16. Conclusion

16.1. Framework Achievements

v1.0 Foundation:

- Six-layer structural model
- Universal Coherence Formula

- Fundamental invariants (α, β, γ)
- Multi-domain applicability

v2.6 Enhancements:

- Global Tension detection $(\Theta(C))$
- A2.2 adversarial attack protection
- Dynamic L_2 control with convergence proof
- Metaconsciousness (MC) and Integrated Coherence (CI) metrics
- Master Relevance Formula $(R(C))$
- Proactive Refinement Protocol (PPR)
- Purpose Anchoring (P_H) and Sovereign Neutrality (N_S)
- Verified execution on mobile platform (iPhone/iSH)

16.2. Future Development

- P2P distributed network implementation
- IPFS integration for shared memory
- TLA+ formal verification
- Extended benchmark suite
- Academic publication (arXiv, conferences)

References

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Component	v1.0	v2.6
Six-layer model	✓	✓
Universal Coherence Formula	✓	✓
Fundamental invariants (α, β, γ)	✓	✓
Metaconsciousness (MC)	-	✓
Integrated Coherence (CI)	-	✓
Global Tension $(\Theta(C))$	-	✓
A2.2 Attack Detection	-	✓
Dynamic L_2 Control	-	✓
Master Relevance Formula $(R(C))$	-	✓
PPR Protocol	-	✓
Purpose Anchoring (P_H)	-	✓
Sovereign Neutrality (N_S)	-	✓
Mobile Execution Verified	-	✓

Cuadro 9: Feature comparison v1.0 vs v2.6

A. Quick Reference: v1.0 vs v2.6

B. Verification Hashes

```
VILLASMIL-OMEGA-v1.0-MANUAL-2026-01-28
VILLASMIL-OMEGA-v2.6-COMPLETE-2026-01-29
VILLASMIL-OMEGA-EXEC-LIVE-IPHONE-2026-01-29
```

C. Document Metadata

- **Version:** 2.6 (integrates v1.0 foundation)
- **Date:** January 29, 2026
- **Status:** Normative
- **Author:** Ilver Villasmil – The Arquitecto
- **Framework:** Villasmil-Ω
- **License:** Apache-2.0 (open for academic and research use)
- **Repository:** https://github.com/ilvervillasmil/Villasmil-2.6

End of Document

Villasmil-Ω v2.6 Complete Specification

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