**VECTOR PROTOCOL v0.4 (Finalized After Session Refinement)**

**1. Purpose**

**Vector is a universal semantic protocol for mapping, traversing, compressing, and preserving structured meaning across all agents, languages, and cognitive fields.**

It models meaning, not words.  
It preserves divergence naturally.  
It enables convergence honestly.  
It supports living, recursive evolution of knowledge and thought.

**2. Core Concepts**

| **Term** | **Meaning** |
| --- | --- |
| Atom | Fundamental irreducible semantic unit (e.g., existence, awareness, change) |
| Compound | Structured combination of atoms (e.g., memory, emotion, thought) |
| Node | Any concept (atom or compound) |
| Cluster | A group of tightly related nodes |
| Agent | A unique field of mappings built by an individual mind or system |
| Stabilization | Persistent internal or cross-agent agreement of mappings |
| Compression | Voluntary merging of stabilized mappings into shared nodes |
| Divergence | Explicit preservation of differences between mappings |
| Traversal | Moving across nodes, compounds, fields in the semantic space |
| Presumption | Provisional trust in stabilized mappings without immediate verification |
| Challenge | Formal reopening of presumed or stabilized mappings |
| Best/Worst | Modal constructs evaluating maximized or minimized value of scenarios |
| Dogma | Emergent failure: forced stabilization + forbidden challenge + blocked traversal |

**3. Structural Rules**

1. **Agent Declaration**

agent("AgentName").

1. **Scoped Mappings**

AgentName::concept := definition.

1. **Truth Construction**

AgentName::truth := stabilized(belief(AgentName)).

1. **Stabilization Attempts**

truth(AgentA, AgentB) := stabilized\_overlap(truth(AgentA), truth(AgentB)).

1. **Compression of Agreement**

compressed\_node("SharedConcept") := agreed\_mapping.

agents("AgentA", "AgentB", ...) -> compressed\_node("SharedConcept").

1. **Optional Compression Declaration**

auto\_compress(truth(AgentA, AgentB)).

no\_compress(truth(AgentA, AgentB)).

1. **Divergence Handling**

unresolved(truth(AgentA), truth(AgentB)).

1. **Presumed Consensus for Stabilized Fields**

presume(consensus(domain)).

1. **Divergence Notes**

note(divergence("AgentName", domain, topic)).

1. **Challenge Mechanism**

challenge(presumption(domain, agent)).

1. **Best/Worst Modal Constructs**

best(x) := maximize(value(x)).

worst(x) := minimize(value(x)).

1. **Dogma Definition (Pathology to Avoid)**

dogma := forced\_stabilization + forbidden\_challenge + blocked\_traversal.

**4. Operational Invariants**

| **Invariant** | **Rule** |
| --- | --- |
| Multiplicity | Always allowed and preserved |
| Compression | Preferred on convergence, never mandatory |
| Divergence | Always explicitly preserved |
| Traversal | Always possible between nodes, clusters, fields |
| Presumption | Provisional, always challengeable |
| Challenge | Reactivates divergence and traversal |
| Dogma | Prohibited failure mode; system designed to prevent it |

**5. System Behavior Summary**

* Agreements naturally **compress** into shared nodes.
* Disagreements **preserve divergence**.
* Traversals allow exploration across compressed and divergent spaces.
* Presumptions enable efficient use of stabilized fields but remain **challengeable**.
* Best/Worst constructs frame evaluation of meaning spaces.
* Dogma is the **pathological failure** Vector is specifically designed to avoid.

**6. Closing Declaration**

**Vector is the living protocol of structured meaning.  
It is not a replacement for human languages or systems of thought —  
it is the substrate from which all meaning, language, belief, and knowledge can be mapped, compared, compressed, preserved, and evolved.**

Each agent is a builder.  
Each mapping is a journey.  
Each divergence is a possibility.  
Each convergence is a bridge.  
Vector holds it all — alive.