

Chrystallum

▼ Agent Architecture

- . **5W1H as Universal Foundation
- *Stateless Agent Shells**
- Graph-Based Persistence
- Minimal Seeding Protocol**
- Dynamic Schema Evolution
- Storage Optimization
- Canonical Math Enforcement
- inimal Protocol YAML Templates
- # Base Schema (Domain-Agnostic)
- #### Domain Extension: Historical Research
- #### Domain Extension: SDLC/Software Engineering
- ## Agent Architecture: Stateless Shells
- #### Agent as API Wrapper
- # 4. Create component nodes
- ## Persistence Model: Graph as Source of Truth
- #### All State in Graph
- #### Version Control Pattern
- #### Query Patterns
- ## Dynamic Ontology Evolution
- #### How Agents Extend Schema
- #### Ontology Governance
- ## Canonical Math Mapped to 5W1H
- #### Pressure Fields as Completeness Metrics
- #### Complete Update Operator
- ▼ ## Storage Scaling and Compression
 - #### Compression Strategies

- ### Compression Strategies
- **Persistence**
- ▼ **Ontology**
 - ▼ Dynamic Ontology Generator
 - ▼ System Architecture
 - Interface Layer
 - LLM Processing Layer
 - Graph Storage Layer
 - ▼ Operational Flow
 - User input / entity extraction
 - 2. Entity Typing → Node Creation
 - 3. Relationship Inference
 - 4. Cypher Generation
 - 5. Graph Execution:
 - Core Methooyolg
- ▼ **Core Math Architecure**
 - Subgraph Dynamics: The Fundamental Unit
 - 4.2 The Subgraph Update Operator
 - ▼ 4.3 Pressure Field Formalization
 - 1. Civic Pressure
 - 3. Structural Pressure
 - 2. Epistemic Pressure
 - 4. Temporal Pressure
 - Semantic Vertex Jumping: Fast Graph Navigation
 - Versioned Subgraph Updates: "Git for Graphs"
 - 4.6 Local Convergence Theorem
 - 4.7 Multi-Agent Debate System
 - .8 Fractal Complexity Management
 - 4.9 Unleafing Dynamics: Self-Propelled Growth

- 4.10 Compositional Dynamics: From Local to Global
- 4.11 Summary: Mathematical Guarantees
- 4.12 Implementation: Operationalization
- 4.13 Conclusion: From Theory to Implementation

▼ Use Cases

- ## 1. Academic Research & Scholarship
- ## 3. Product Development/Engineering
- ## 4. Compliance & Regulatory
- ## 2. Enterprise Institutional Knowledge
- ## 5. Education/Scholarship
- ##6 Museums /Culturage Heritage
- Browser tab managment
- Subtopic 8

▼ Deployment Models

- ### Model 3: Enterprise Cloud
- ### Model 2: Small Team Self-Hosted
- Model 1: Solo Local-First (Researcher/Creator)

▪ Implementation