WaveCounter Engineering Canon v1.0

Core-only Specification (WCCS + WaveCounter A.D.E Core)

Petr Popov

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1 Object Definition

WaveCounter Engineering Canon v1.0 defines the structural core of a deterministic and finite market configuration system.

The WaveCounter Canonical Configuration System (WCCS) is formally specified as a deterministic finite automaton (DFA) operating on a closed and finite set of structural configurations.

The system:

- operates exclusively on canonical configuration sets,
- is fully deterministic,
- contains no probabilistic or interpretative branches,
- is structurally closed under reduction,
- admits no infinite hierarchical expansion,
- reaches maximal sufficient hierarchy at level S3.

This document discloses only the canonical structural layer.

The applied implementation layer (WaveCounter Structural Engine, WCSE), including parameterization, execution logic, optimization rules, and signal-generation mechanisms, is not part of this specification.

Formal Positioning

For the purpose of structural priority, WCCS is defined as a closed canonical system with explicitly enumerated configuration sets and a finite transition relation.

All admissible structural states and transitions are exhaustively listed in this document.

Any configuration or transition not explicitly listed is considered invalid within the canonical system.

2 Canonical Configuration Sets

2.1 Entry-4 Set ($|E| = 10$)

The canonical Entry-4 configuration set is defined as:

$$E = \{2143, 2413, 2431, 1324, 3124, 4213, 4231, 1342, 3142, 3412\}$$

These are the only admissible four-point structural configurations.
Any four-point configuration not belonging to this set is invalid within WCCS.

2.2 Exit-5 Set ($|X| = 32$)

The canonical Exit-5 configuration set is defined as:

$$\begin{aligned} X = \{&13254, 31254, \\ &13524, 31524, 35124, \\ &13542, 35142, 31542, 35412, \\ &21435, 24135, 24315, 24351, \\ &42135, 42315, 42351, \\ &53124, 51324, 15324, \\ &53412, 53142, 51342, 15342, \\ &24531, 24153, 24513, 21453, \\ &42531, 42513, 42153, \\ &45231, 45213\} \end{aligned}$$

These are the only admissible five-point structural exit configurations.
Any Exit-5 configuration not belonging to this set is invalid within WCCS.

2.3 Reduction and Closure

For every admissible transition, reduction produces a valid four-point configuration belonging to the Entry-4 set.
Formally:

$$R = E$$

Thus, the system is structurally closed under reduction.
No reduced configuration may fall outside the canonical Entry-4 set.

3 Canonical Transition Table

The canonical transition relation consists of exactly 32 admissible triples of the form:

$$(e_i, x_k, r_j)$$

where:

- $e_i \in E$ is an Entry-4 configuration,
- $x_k \in X$ is a corresponding Exit-5 configuration,
- $r_j \in E$ is the resulting Reduced-4 configuration.

The transition function is fully defined by Canonical Table A below.
Any transition not explicitly listed is invalid within WCCS.

Table 1: Canonical Table A (Core-only): Admissible Transitions (Entry-4 → Exit-5 → Reduced-4)

Entry-4	**Exit-5**	**Reduced-4**
2143	13254	1324
2143	31254	3124
2413	13524	1324
2413	31524	3124
2413	35124	3124
2431	13542	1342
2431	35142	3142
2431	31542	3142
2431	35412	3412
1324	21435	2143
1324	24135	2413
1324	24315	2431
1324	24351	2431
3124	42135	4213
3124	42315	4231
3124	42351	4231
4213	53124	3124
4213	51324	1324
4213	15324	1324
4231	53412	3412
4231	53142	3142
4231	51342	1324
4231	15342	1324
1342	24531	2431
1342	24153	2413
1342	24513	2413
1342	21453	2143
3142	42531	4231
3142	42513	4213
3142	42153	4213
3412	45231	4231
3412	45213	4213

4 Formal DFA Definition

The WaveCounter Canonical Configuration System is formally defined as a deterministic finite automaton:

$$WCCS = (S, \Sigma, \delta, s_0)$$

where:

- $S = E$ is the finite set of admissible structural states,
- $\Sigma = X$ is the finite set of admissible exit events,
- $\delta : S \times \Sigma \to S$ is the deterministic transition function,
- $s_0 \in E$ is an admissible initial structural configuration.

The transition function δ is exhaustively defined by Canonical Table 1.
For any $(e, x) \notin T$, the transition $\delta(e, x)$ is undefined and therefore invalid within WCCS.

5 Structural Invariants

The following structural properties hold:

1. **Finiteness.** The sets E and X are finite. The transition relation T is finite and exhaustively listed in Canonical Table 1. Therefore, the automaton $WCCS$ is finite.
2. **Determinism.** For every admissible pair (e, x) appearing in Table A, the resulting reduced configuration is uniquely determined.
3. **Closure.** All reductions produce configurations belonging to E. No transition leads outside the canonical state set.
4. **Non-Extendability.** No additional Entry-4, Exit-5, or transition may be introduced without violating the canonical structure defined in this document.
5. **Hierarchy Bound.** The structural hierarchy of WCCS does not extend beyond level S3. Additional hierarchical layers do not increase expressive capacity of the canonical configuration system.

6 Disclosure Boundary

This document discloses the canonical structural layer of WaveCounter only.

The following elements are explicitly excluded from this publication:

- parameterization schemes,
- execution logic,
- optimization procedures,
- filtering mechanisms,
- timing rules,
- applied trading strategies,
- signal-generation algorithms,
- performance-related adaptations.

These elements belong to the proprietary implementation layer known as WaveCounter Structural Engine (WCSE) and are not part of the canonical specification.

The present disclosure establishes structural priority only.

7 Legal Notice

This document establishes structural and conceptual priority for the WaveCounter Canonical Configuration System (WCCS) and WaveCounter A.D.E Core.

The structural specification is publicly disclosed for priority protection purposes. The applied implementation layer (WaveCounter Structural Engine, WCSE) remains proprietary.