Formal Semantics

Go up to Terms and Definitions

Discussion

Formal semantics defines the meaning of architectural constructs precisely and unambiguously.

Formal semantics separates meaning from implementation syntax, storage technology, programming language, exchange mechanism, deployment environment, or runtime platform.

Formal semantics supports consistent interpretation across implementations, tools, organizations, and governance contexts. It provides a basis for traceability, conformance evaluation, controlled interpretation, and semantic consistency within the Reference Architecture (RA).

Definition

precise and unambiguous definition of meaning associated with architectural constructs, independent of implementation

Source

Structured Information Processing Reference Architecture (RA)

Note

Formal semantics provides the basis for consistent interpretation and conformance evaluation across implementation technologies.

Example

A Reference Architecture (RA) defines the meaning of an Attachment Point, Conformance Point, lifecycle state, or governed artifact independently of the software mechanism that implements it.