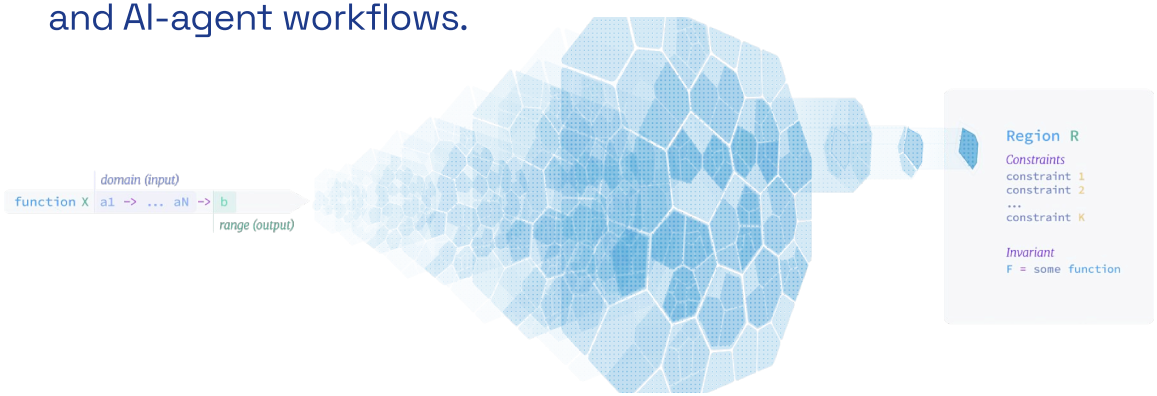
ImandraX

ImandraX is the core automated reasoning engine powering the Imandra stack.

It combines symbolic execution, novel decision procedures (lifting of SMT to a Higher-Order Logic with recursion and induction), automated and interactive theorem proving, model checking, and region decomposition to analyze software and formal models at scale.

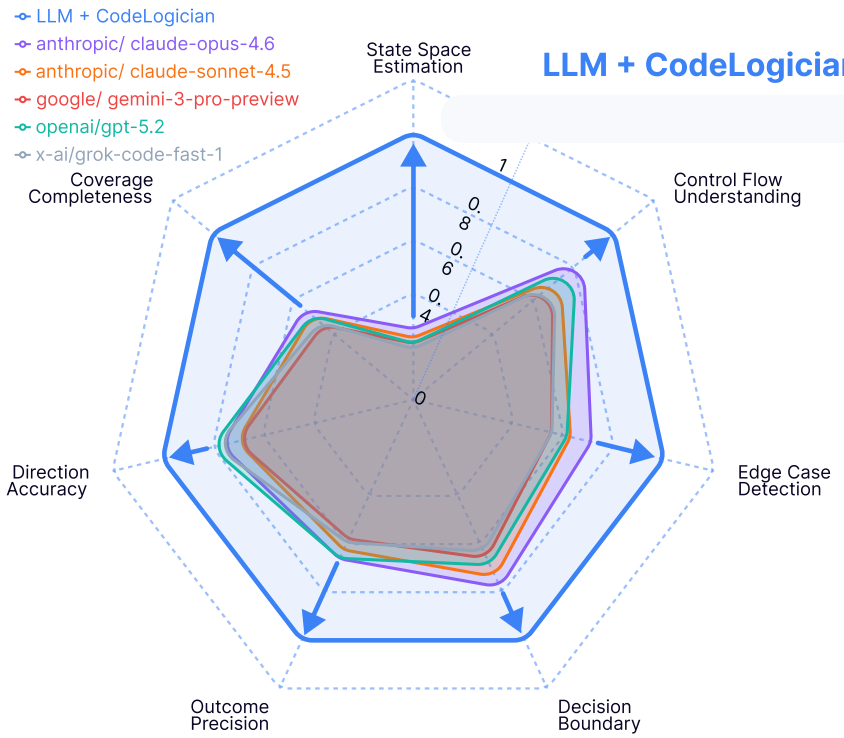
ImandraX can be used directly through Python APIs, the VS Code extension, or integrated into higher-level products and AI-agent workflows.



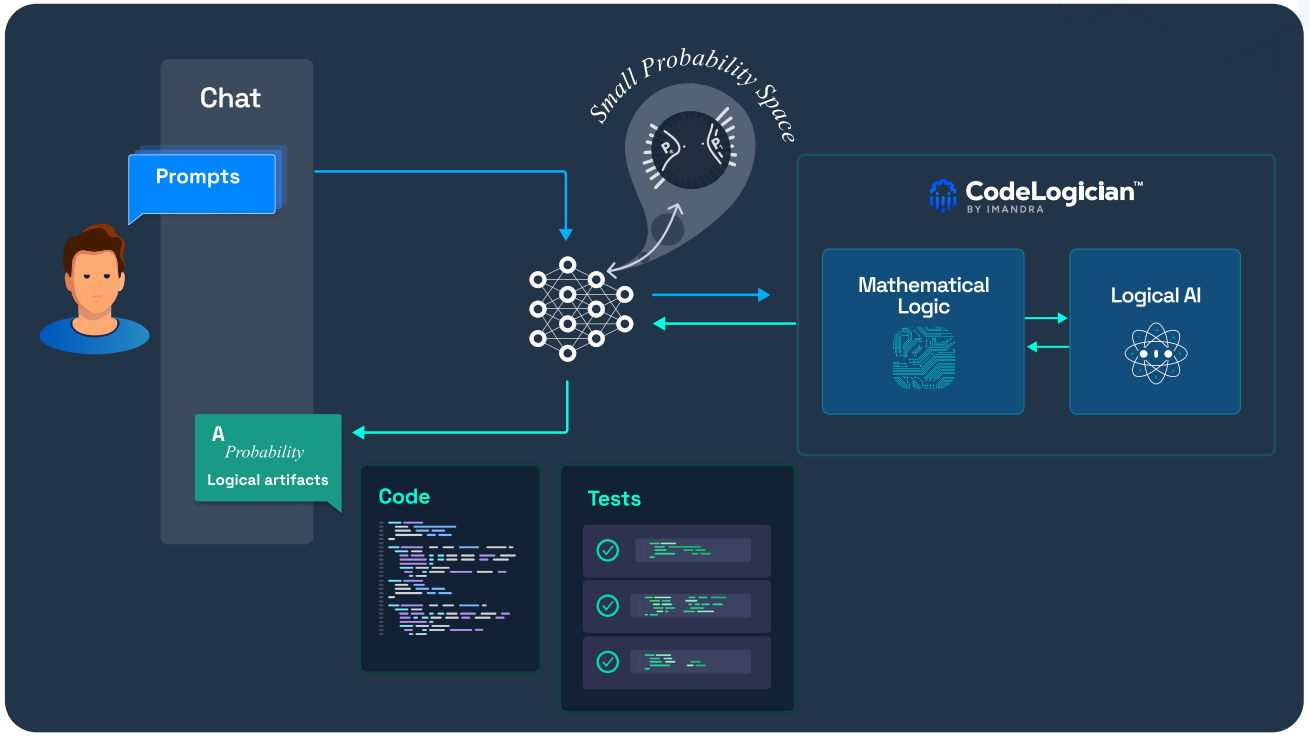
See www.imandrax.dev for more info.

CodeLogician: Logical Reasoning for AI Coding Agents

CodeLogician makes AI coding agents structure their reasoning in logic and uses ImandraX to systematically analyze what the code can actually do. So you catch edge cases, surface hidden behaviors, and ship with confidence instead of guesswork.



With CodeLogician



- Decision logic is formalized
- Reasoning engine explores behavior
- Artifacts expose boundaries and edge cases

- State machines and workflows
- Financial and rule engines
- Access control and policy systems
- Distributed system coordination
- Complex integration logic

CodeLogician turns AI coding from "looks right" into "behavior understood."

See www.codelogician.dev for more info.

Pones: computable governance

TraceHub is an online environment for storing, editing, analyzing, and governing reasoning traces produced by AI agents.

Instead of treating agent execution as opaque prompt logs, TraceHub structures reasoning into analyzable artifacts connected to:

- code,
- specifications,
- policies,
- verification goals,
- proofs,
- counterexamples,
- and generated tests.

Reasoning traces become:

- inspectable,
- searchable,
- enforceable,
- replayable,
- and mathematically analyzable.

Ponens enables "glass-box" governance for AI-assisted engineering workflows.

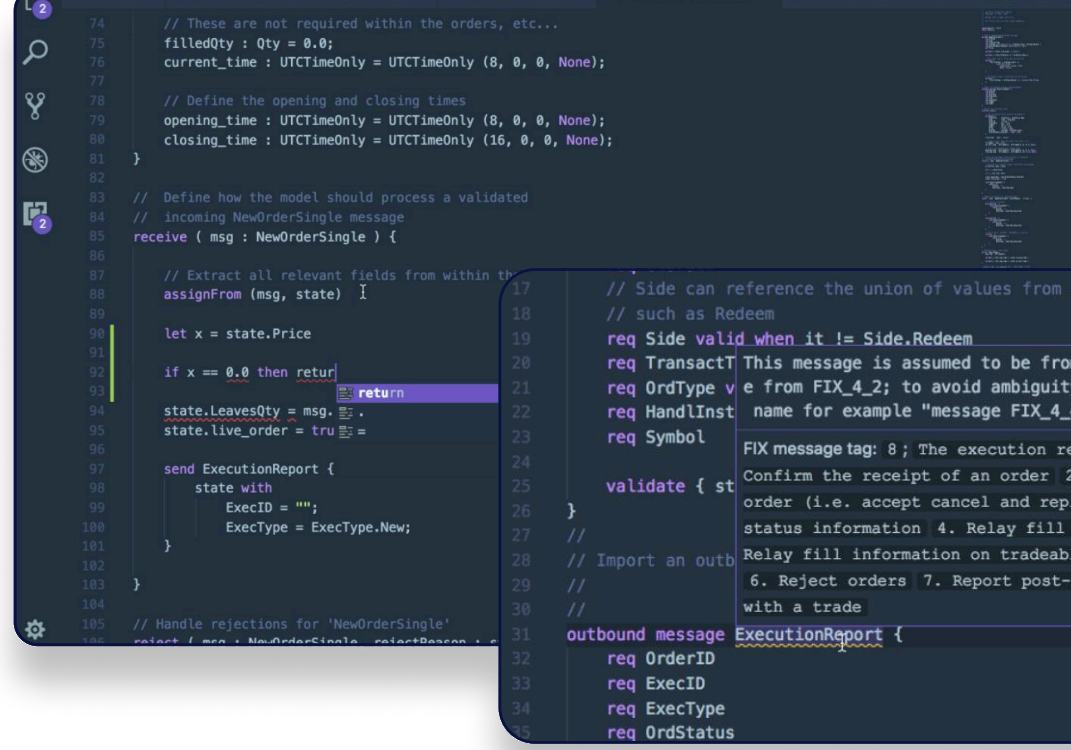
www.ponens.dev

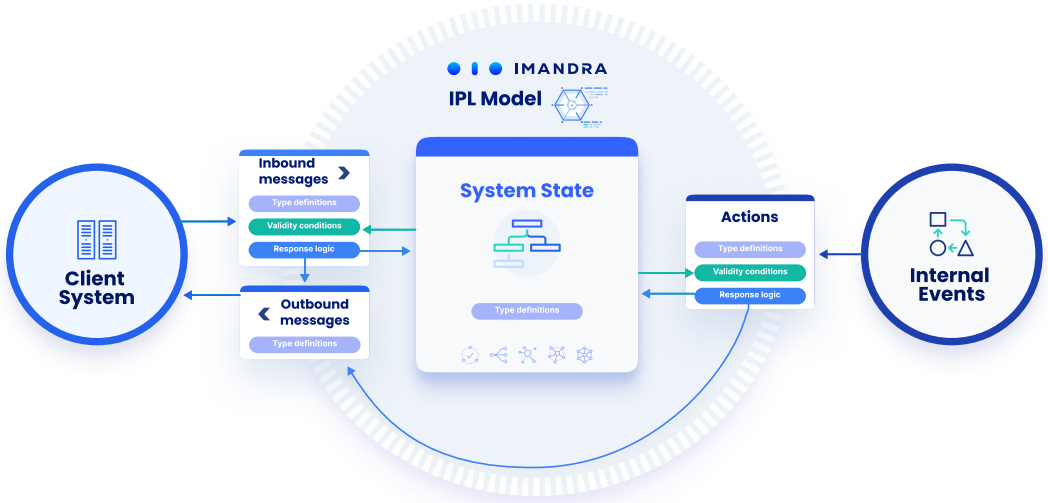
Imandra Protocol Language

Imandra Protocol Language (IPL) is a formal DSL for expressing complex financial APIs, workflows, and protocol behavior.

IPL models define: message schemas, validity conditions, state transitions, response logic, internal events, and operational constraints.

IPL models compile into IML and become analyzable by ImandraX.





See www.ipl.dev for more info.