

EHOP: Effect Handler Oriented Programming

Making effects programmable for robust, high-performance, trustworthy software

Pure computation

Black-box: input → output

extended to real-world interaction via **effects**



Effect Handlers

Customisable, composable, user-defined interpretations of effects

Industrial-strength systems

Cangjie



OCaml 5



WasmFX



Effects

concurrency • distribution • failure • I/O • probability • ...

Modal effect types

Modal-logic-inspired tracking; OxCaml for safe, fast code (e.g. real-time trading systems)

Wasm SpecTec

Single source of truth

rules • prose • interpreter • tests • proofs

Sam Lindley

effect-handlers.org

Follow-on projects

EPOCH (hardware capabilities)
ReactFX (reactive programming)
UCFX (crypto)

more robust software • better formal & informal reasoning • safe, secure, reliable systems • specification as a single source of truth