

Orbit

agentic pair programming in Smalltalk



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This is early, evolving work – please jump in with questions and comments at any time. The text on every slide is *live and editable*.

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How can an AI agent join a human pair programming team?

WHAT IS ORBIT
Orbit connects an AI agent to a human pair programming team through the Context Protocol. The agent can evaluate, compile, test, and run code as a genuine collaborator.

How can an AI agent join a human pair-programming team?

WHAT IS ORBIT

Orbit connects an AI agent to a running Smalltalk system through the *Model Context Protocol*. The agent can read, evaluate, compile, test, and refactor live code as a genuine collaborator.

A LIVING SYSTEM

There is no build and no restart. The agent works inside a *live object memory*, changing the system while it runs — classic Smalltalk **livecoding**.

TOOLS & RESOURCES

An **MCP server** exposes the image as a rich toolbox: evaluate expressions, compile methods, create classes, run tests, and trace *senders* and *implementors*.

AN ACTIVE FILESYSTEM

A live **WebDAV** filesystem projects the image as files — */classes*, */processes*, */search*, */sessions*. Reading and writing has real side effects in Smalltalk.

SAFETY BY CONSTRUCTION

Roles and **capabilities** scope what the agent may do: *MethodCompilation*, *SharedVariableAccess*, *AgenticMemoryAccess*.
Permission is explicit, not assumed.

EXTERNALIZED CONTEXT

The agent's context is externalized into *agentic memory* the image itself provides, so understanding of the system **accumulates across sessions.**

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IT'S ALL MORPHIC

The whole experience is **direct and tangible**. This deck lives in a *morphic-window* right beside Caffeine — drag its titlebar, resize it, and edit any slide in place.

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A FEW OF THE TOOLS

evaluate · compile · createClass · addMethod
runTests · getAllSenders ·
getAllImplementors
traceCallChain · snapshotImage ...

Thank you! *Questions?*

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