Migrating Eclipse-based Tools/Plugins to Eclipse Theia or VSCode

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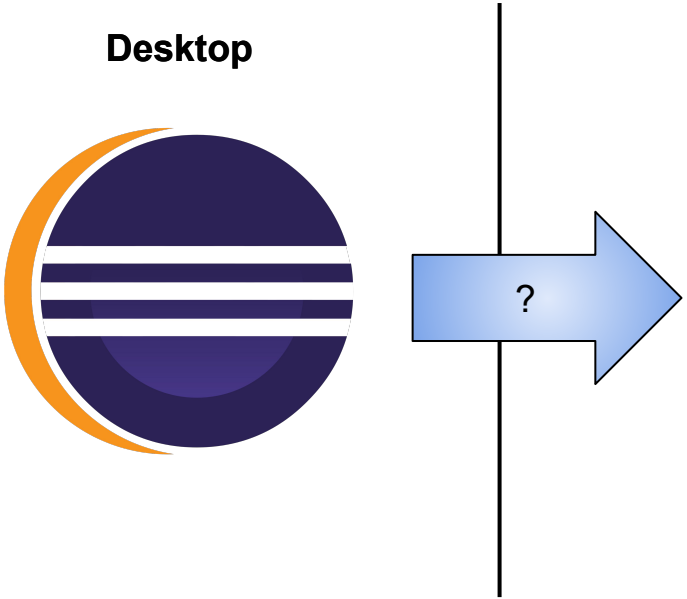
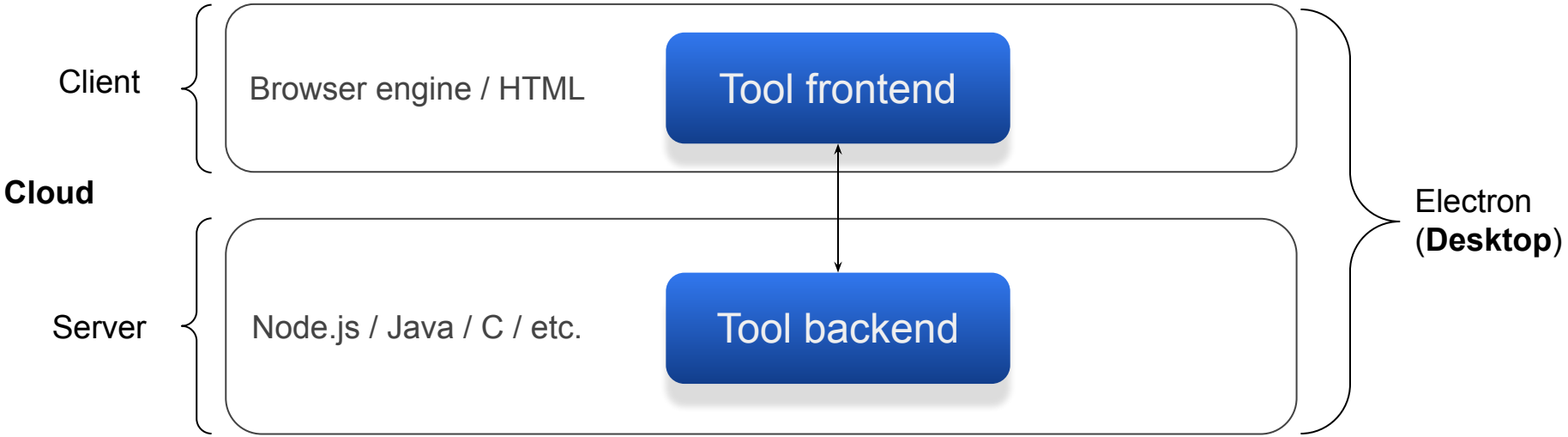
EclipseSource

Migrating tool to the web/cloud?



Typical architecture of a web/cloud-based tool



Desktop vs. Online/Cloud

Desktop	Online

Note that you can single-source most tools features between cloud and desktop

=> Many vendors follow a dual strategy: Web-based on the desktop first, add cloud offering as a second step

The underlying tool platform

Theia vs. VS Code (see also this article)

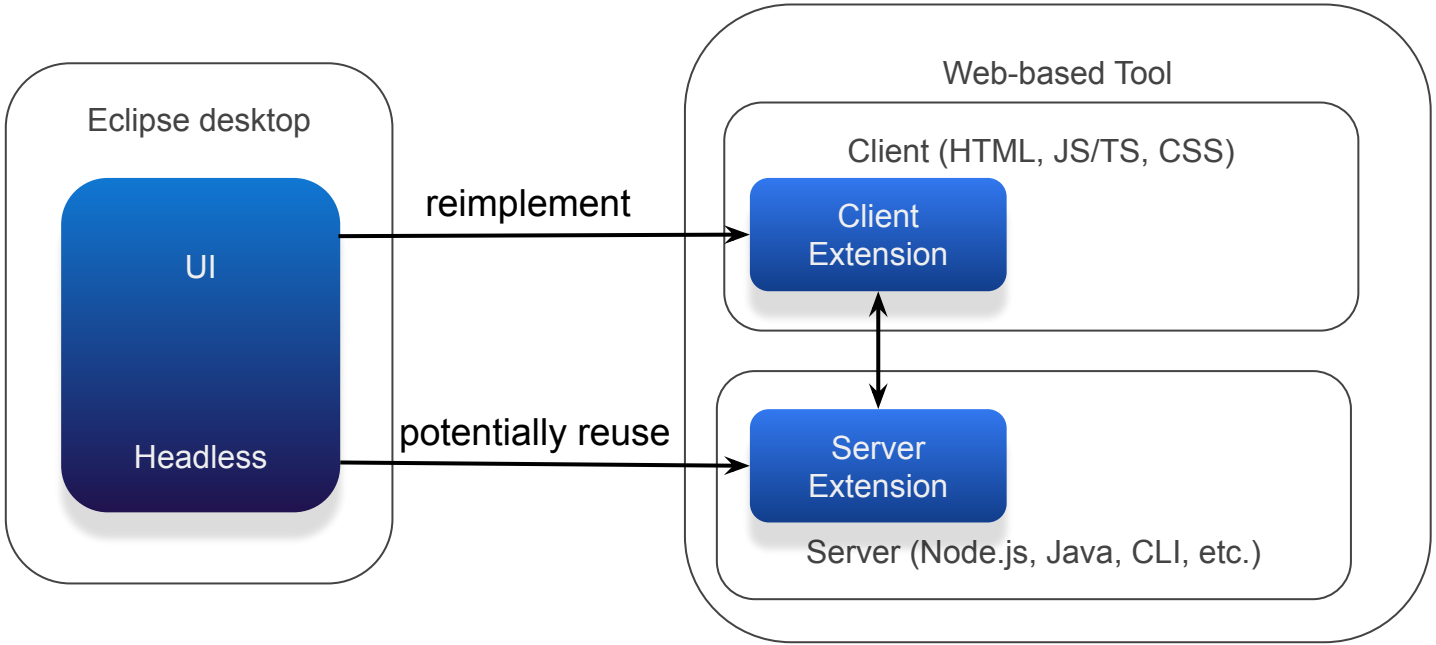
Conceptional assessment of your Eclipse tool/plugin

Conceptional assessment

- Redesign your workflows
- Remove unnecessary features
- Redesign your UX

Technical assessment of your Eclipse plugin

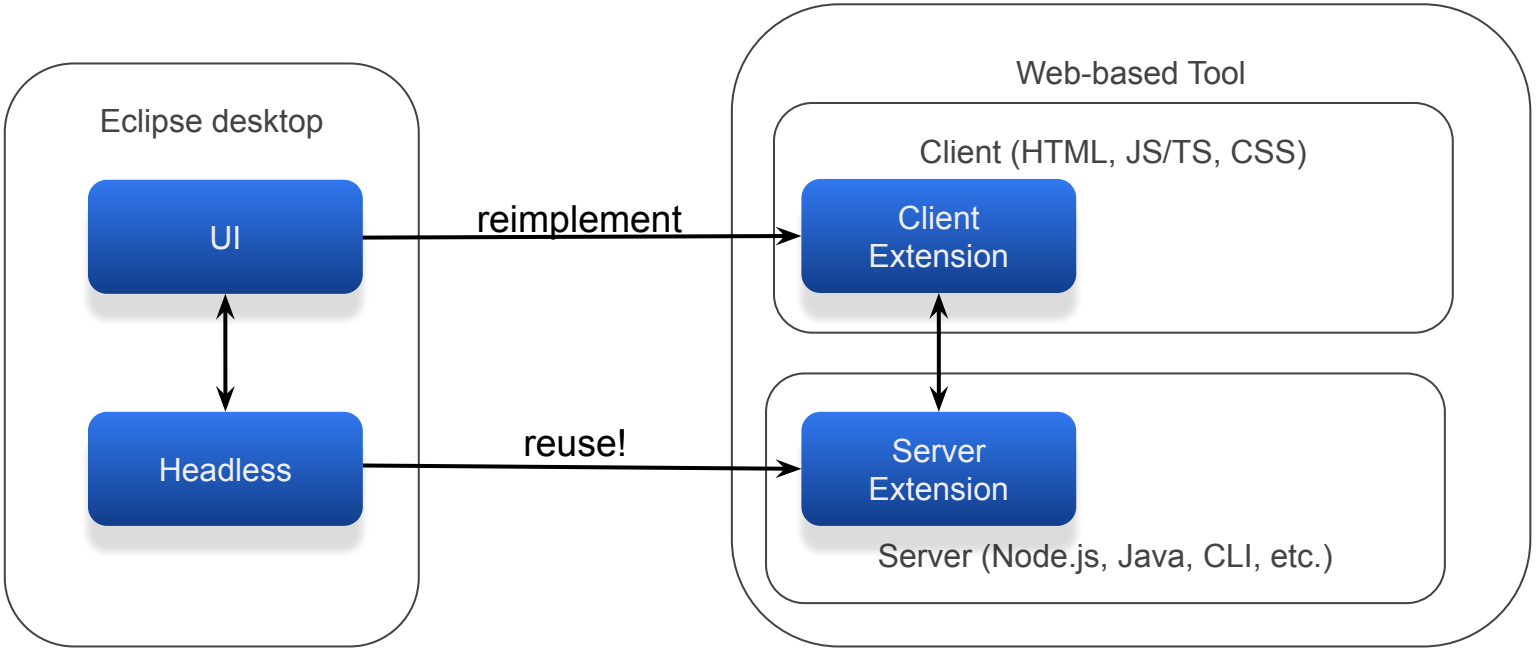
Technical assessment



Technical assessment - examples

- A code generator
- A custom DSL (e.g. with XText)
- A diagram editor
- Dedicated process / CLI
- Language Server Protocol (LSP)
- Eclipse GLSP + Custom server interfaces (e.g. REST or Sockets)

Preparing the architecture of your Eclipse plugin

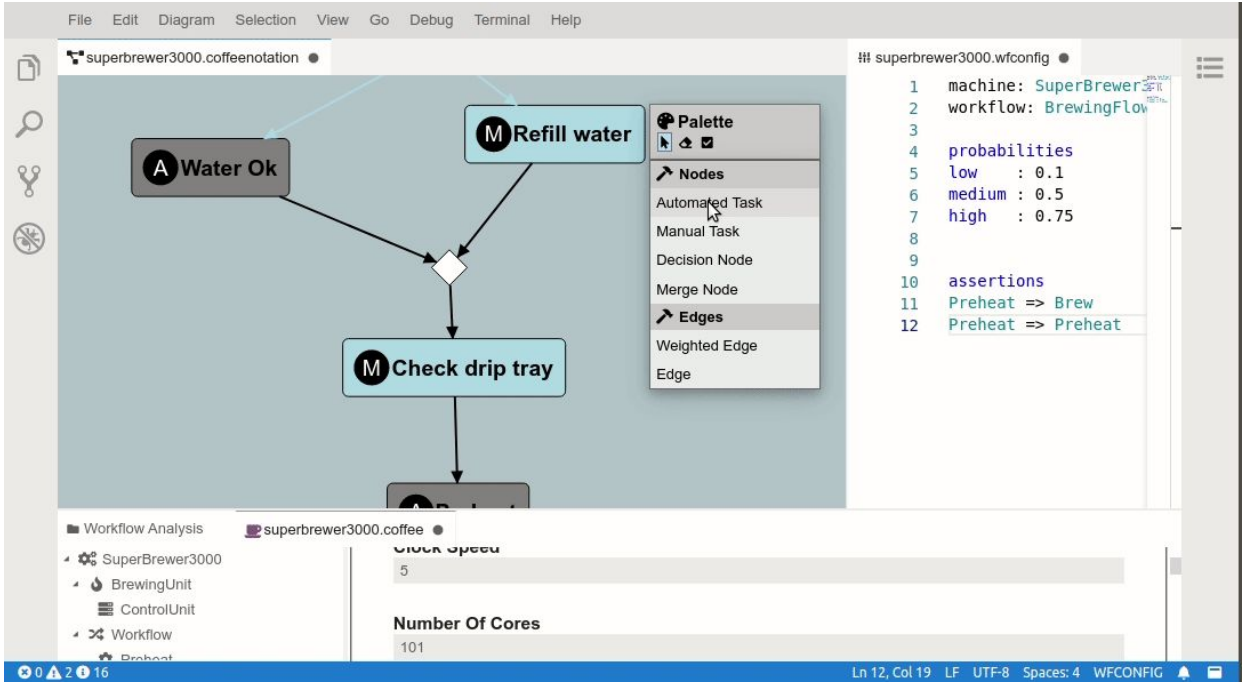


Technology selection for the web-based version

Technical assessment - examples

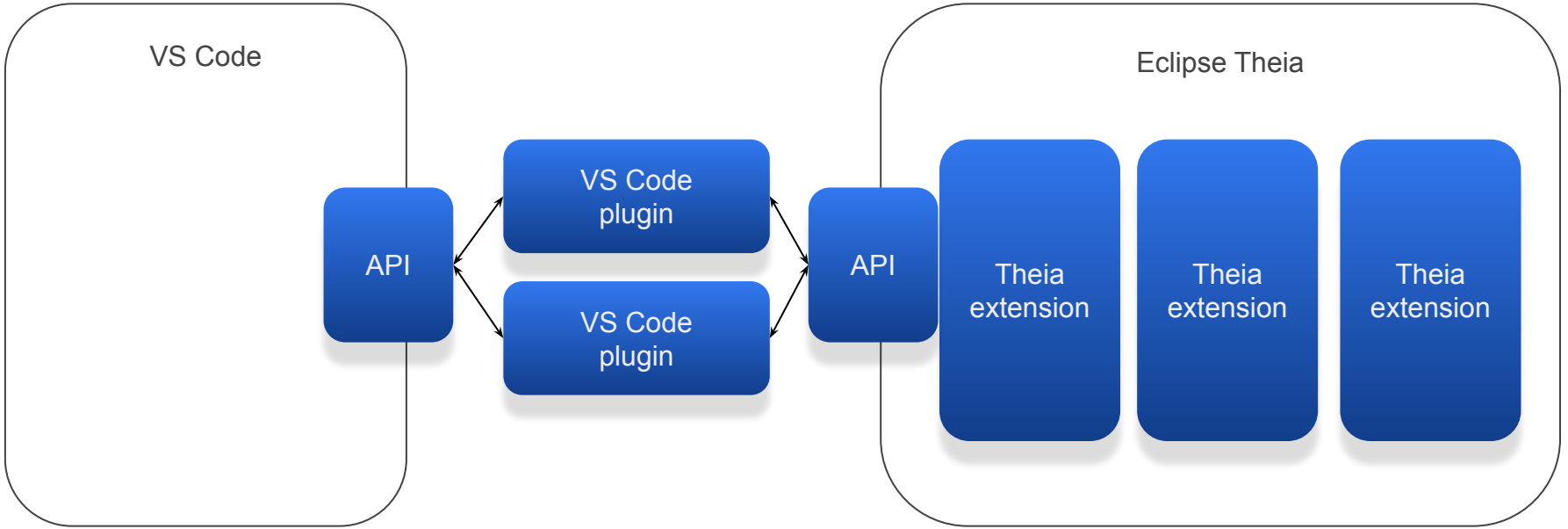
Eclipse desktop	Eclipse Theia / VS Code

The coffee editor



What extension mechanism to use?

VS Code extensions vs. Theia extensions



Define a Strategy

Strategies for migrating your tool

- Evaluate technology choices
- Build PoCs
- Define MVPs
- Go Iterative

Questions?

Today 17:00: Spotlight session

Wed 27.10., 18:15, BoF - Building web-based tools with Eclipse

EclipseSource Booth

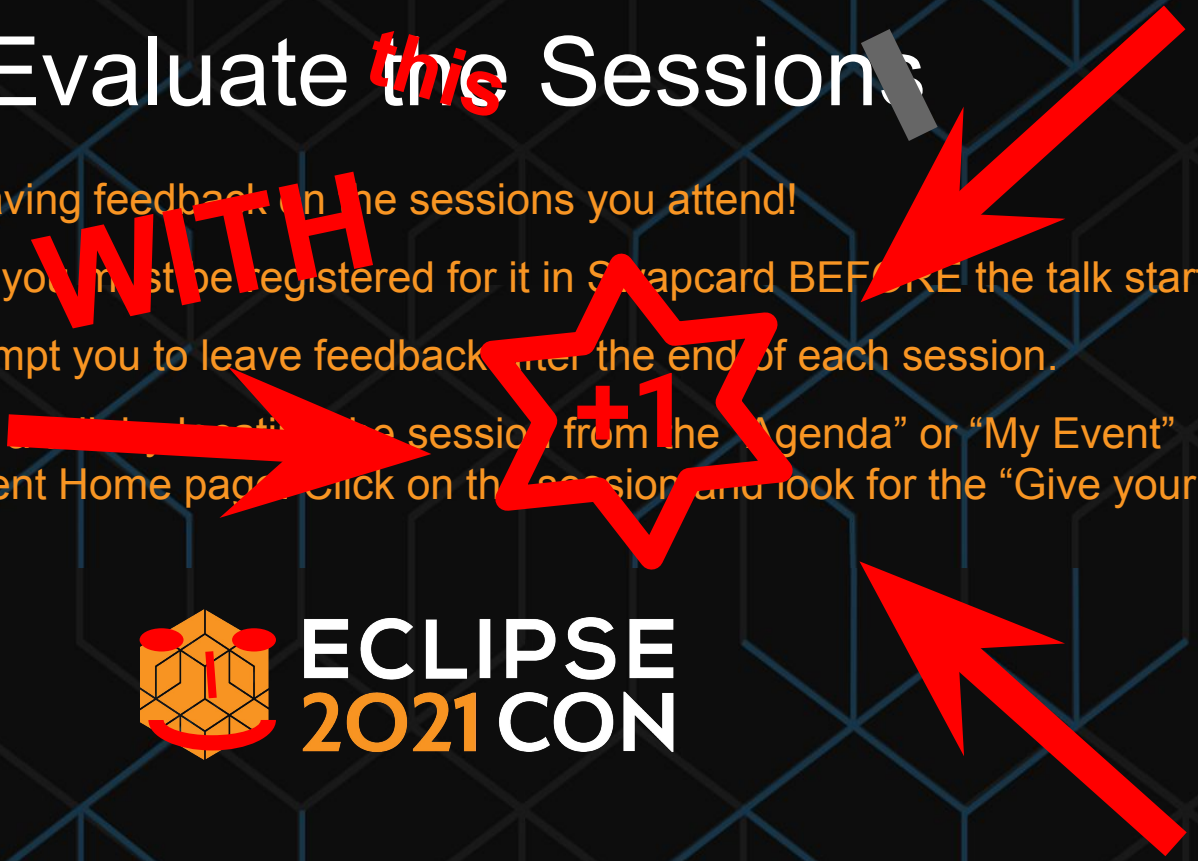
Wed 27.10., 13:50, CDT.cloud? C/C++ tooling in the web

Wed 27.10., 16:10, Model validation, diffing and more with EMF.cloud

Thu 28.10., 16:10, Papyrus UML - the first stage of a journey to the cloud

Evaluate this Session

- Please help by leaving feedback on the sessions you attend!
- To rate a session, you must be registered for it in Swapcard BEFORE the talk starts.
- Swapcard will prompt you to leave feedback after the end of each session.
- You may also rate a session by selecting the session from the "Agenda" or "My Event" buttons on the Event Home page. Click on the session and look for the "Give your feedback" box.



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Backup slides

Web-based vs. cloud-based tools

- Web-based:
  - Use web technologies, especially in the UI, such as: HTML, CSS, JavaScript/TypeScript
  - Use a “browser” for UI rendering (real browser or Electron)
  - Usually split UI and a “backend” server for the business logic, even when deployed on the desktop
- Cloud-based:
  - Backend is deployed remotely (in the cloud)
  - UI is accessed via: Browser or Desktop tool connecting to the backend
- Cloud-based tools are usually web-based, web-based tools are usually prepared for the cloud!