



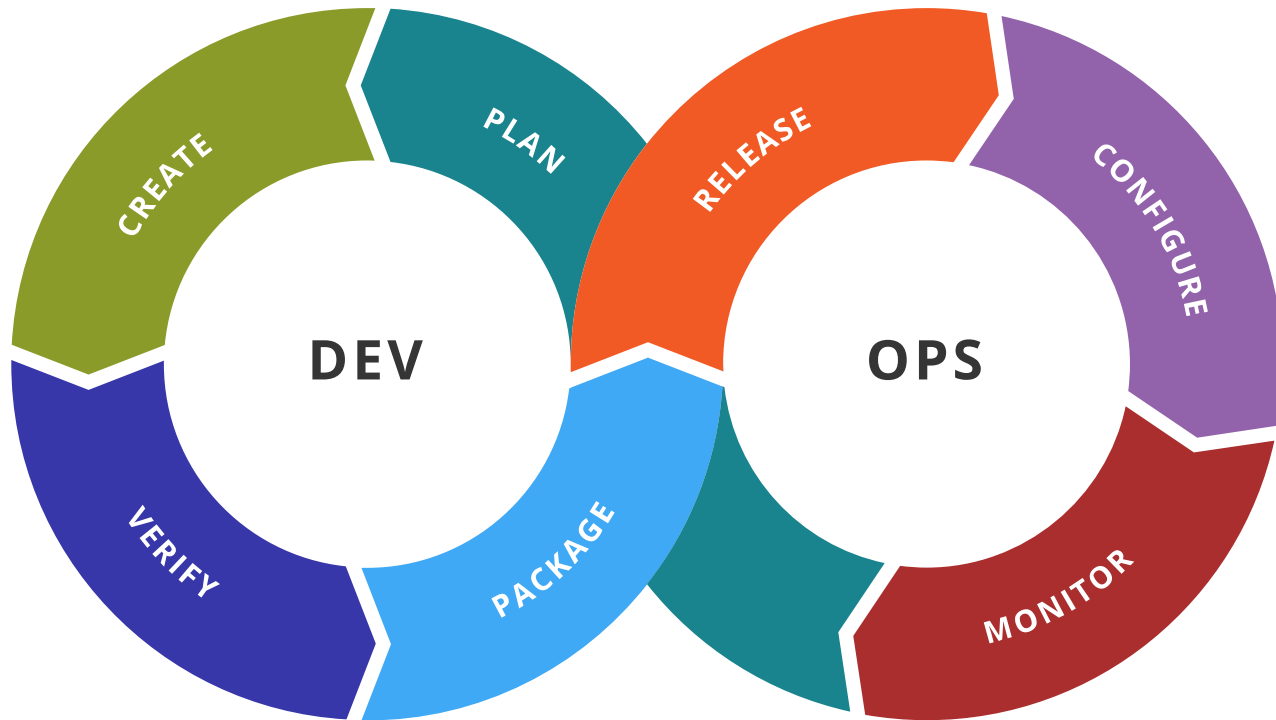
# Building a VSCode extension for the Open Build Service



# Agenda

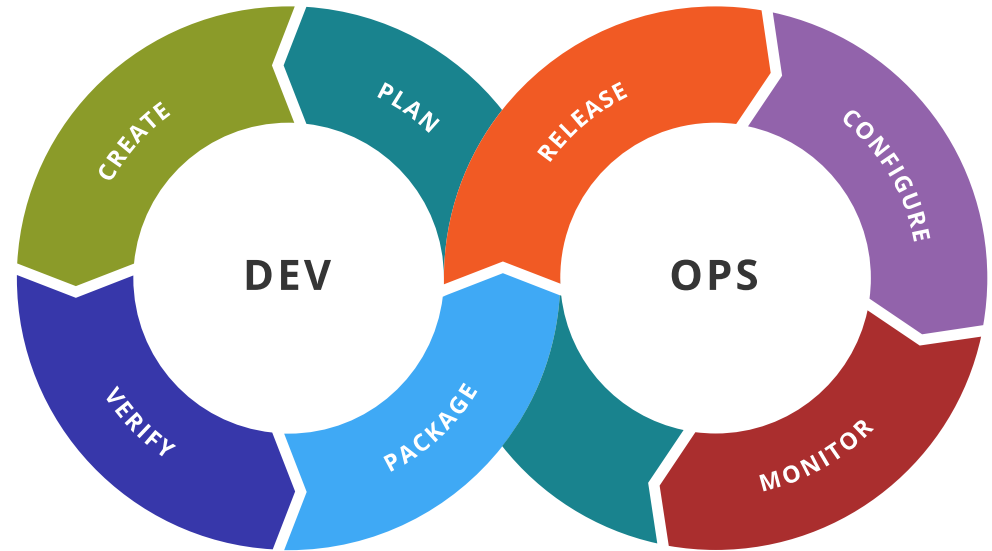
- Intro
- Challenges
- Live Demo

# Intro



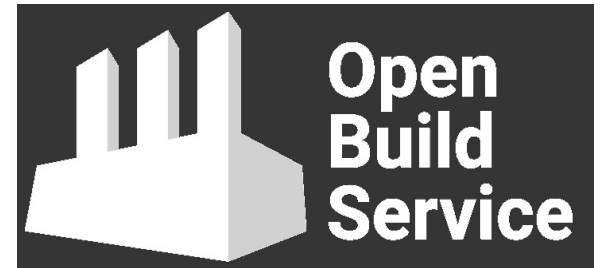
# Connecting the SUSE Tooling

- Bridge Development and Production
- Link IDEs and SUSE products:
  - OBS
  - Infrastructure solutions
  - Application delivery



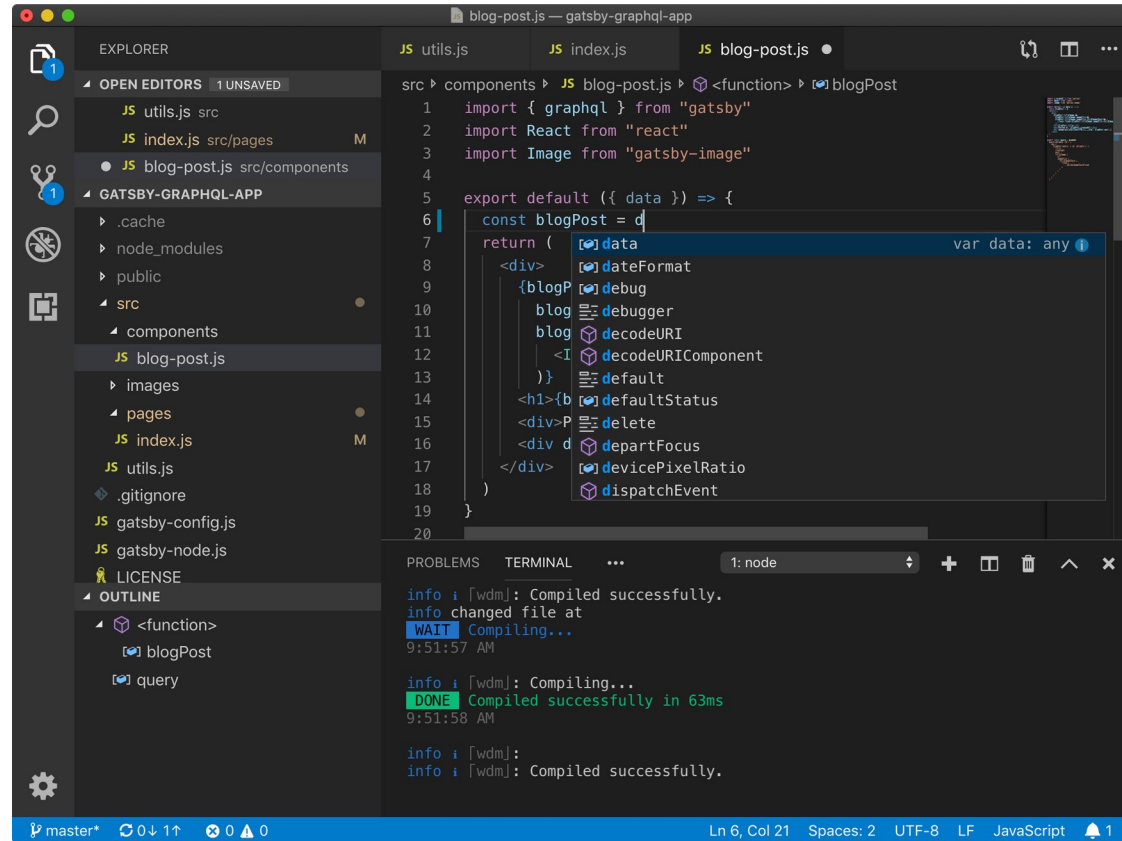
# The Open Build Service

- Open source build server
- Builds rpm, dpkg, containers and VMs
- Automated rebuilds on dependency changes
- Publishing of build artifacts
- Fully integrated workflow to build & publish a distribution



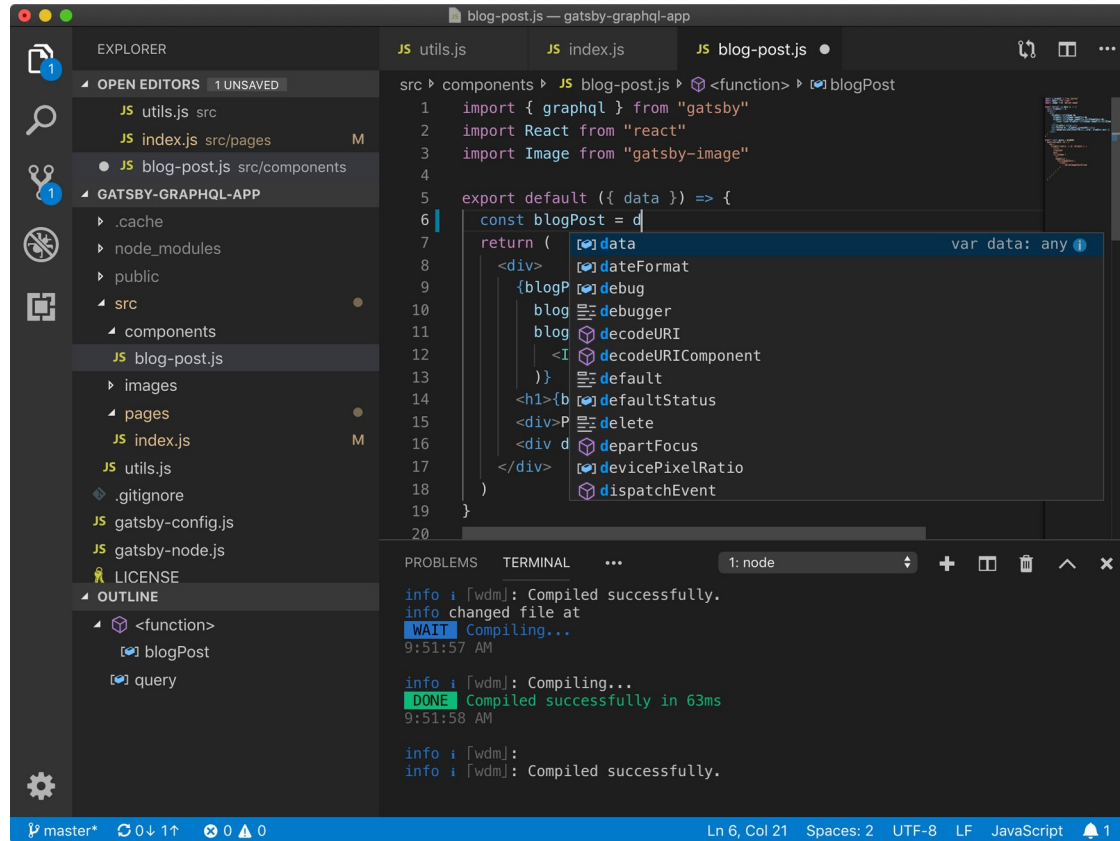
# Visual Studio Code

- Cross platform IDE
- Built with Typescript and Electron
- Highly popular
- Well documented extension API



# Why Visual Studio Code?

- Popularity
- Simple and easy to use
- Consistent UI/UX
- First class LSP support



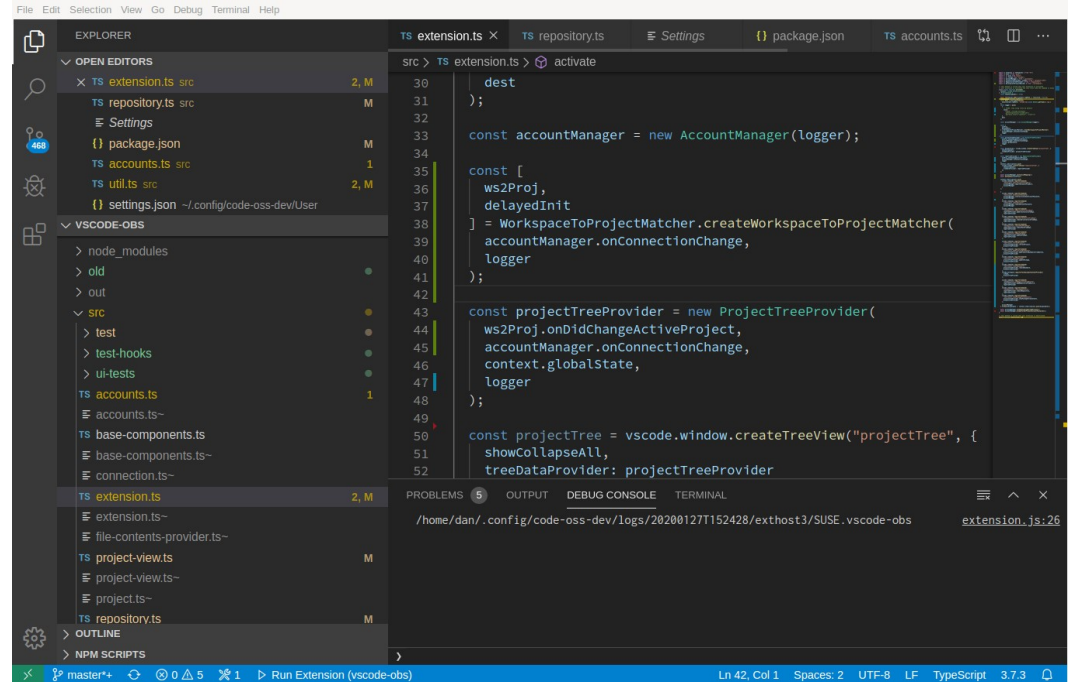
# Challenges





# Challenges - UI

- Only some views can be modified
- No influence on text style & color
- No custom elements



```
File Edit Selection View Go Debug Terminal Help
EXPLORER
OPEN EDITORS
x TS extension.ts src 2, M
TS repository.ts src M
Settings
package.json M
TS accounts.ts src 1
util.ts src 2, M
settings.json ~/config/code-oss-dev/User
VSCODE-OBS
node_modules
old
out
src
test
test-hooks
ui-tests
TS accounts.ts 1
accounts.ts-
base-components.ts
base-components.ts-
connection.ts-
TS extension.ts 2, M
extension.ts-
file-contents-provider.ts-
TS project-view.ts M
project-view.ts-
project.ts-
TS repository.ts M
OUTLINE
NPM SCRIPTS
TS extension.ts x TS repository.ts Settings package.json TS accounts.ts
src > TS extension.ts > activate
30
31
32
33 const accountManager = new AccountManager(logger);
34
35
36
37 const [
38   ws2Proj,
39   delayedInit
40 ] = WorkspaceToProjectMatcher.createWorkspaceToProjectMatcher(
41   accountManager.onConnectionChange,
42   logger
43 );
44
45 const projectTreeProvider = new ProjectTreeProvider(
46   ws2Proj.onDidChangeActiveProject,
47   accountManager.onConnectionChange,
48   context.globalState,
49   logger
50 );
51
52 const projectTree = vscode.window.createTreeView("projectTree", {
53   showCollapseAll,
54   treeDataProvider: projectTreeProvider
55 });
PROBLEMS 5 OUTPUT DEBUG CONSOLE TERMINAL
/home/dan/.config/code-oss-dev/logs/20200127T152428/exthost3/SUSE.vscode-obs extension.js:26
Ln 42, Col 1 Spaces: 2 UTF-8 LF TypeScript 3.7.3
```

# Challenges - UX

Experts' wishes:

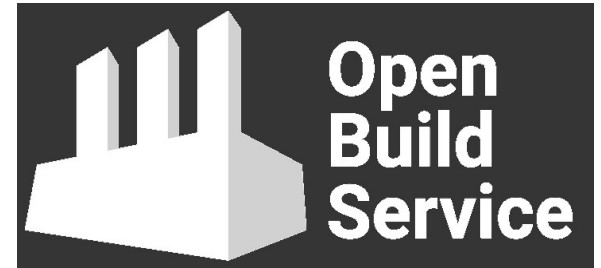
- View projects, packages, requests fast
- Access version control

Beginners' wishes:

- Build upstream project on OBS
- Simple and guided

# Challenges – Open Build Service

- API docs need improvements
- API is not versioned
- History handling
- Anything involving `_links`
- Performance



# Challenges - Testing

- Unit tests require a lot of mocking
- Integration testing needs external resources
- UI tests via [vscode-extension-tester](#)



Live Demo!

# Give it a try!



Open Build Service Connector



SUSE/open-build-service-connector



SUSE/open-build-service-api

2020



Thank You



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# Image sources

- Devops loop: <https://commons.wikimedia.org/wiki/File:Devops-toolchain.svg>
- Open Build Service Logo: <https://openbuildservice.org/>
- Challenge Icon: [https://commons.wikimedia.org/wiki/File:Challenge\\_Icon.svg](https://commons.wikimedia.org/wiki/File:Challenge_Icon.svg)
- VSCode Screenshot 1: <https://github.com/microsoft/vscode/>
- VSCode Screenshot 2: own work
- Selenium Logo: [https://commons.wikimedia.org/wiki/File:Selenium\\_Logo.png](https://commons.wikimedia.org/wiki/File:Selenium_Logo.png)
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