Understanding Asynchronous Code

Problem Scenario

![Diagram showing a flowchart with steps: Something went wrong! → Read the code, guess what happened → Add breakpoints, log statements → Reload the page, trigger bug again → Figured it out?]

Our Insight

Allow developers to test hypotheses while reading the code, like stepping through all traces at once.

```javascript
function dispatch(type, e) {
    for (var i in listeners[type]) {
        listeners[type][i](e);
    }
}

function getExampleData() {
    $.get("/example.json", { success: function (data) {
        dispatch("change", { "data": data });
    } });

    register("change", function (e) {
        page.render(e.data);
    });
}
```

See call counts to know what code was hit

Click!
- All code reachable from `getExampleData` is highlighted
- Calls to `dispatch` from elsewhere have been filtered from the counts
- Click again to extend the query

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