APIs

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What's an API?

Application Programming Interface

…that doesn't help at all. What's an Application Programming Interface?

Well, like SVG, it turns out they're all over the place. We've been using them heavily and even building them for the last couple of weeks.

http://localhost:8080/exist/apps/06-controller/titles
http://localhost:8080/exist/apps/06-controller/modules/titles.xql

A bit more

You've seen functions like XPath `contains("string", "g")`.

The definition of that function, that it's name is **contains**, that it takes 2 parameters, both of which are strings, and that it returns a boolean (true or false) value is part of the XPath API.

A bit of fun

If a web application has an API, that means you can write your own interface to use it.

Try the GitHub API in a terminal: `curl https://api.github.com/zen`

https://translate.tei-c.org/

> Uses the GitHub API to create translation pull requests to the TEIC/TEI repo.

Caveats

CORS (Cross Origin Resource Sharing) — if not enabled on the server, you can't make requests from a browser to a site other than the one the browser is pointed at.

Authentication. Complicated, but we've see Personal Access Tokens, where both GitHub and you have a shared secret code, so GitHub knows it's you.

OAuth 2.0: 3rd party site and GitHub have a shared secret, you log in at (e.g.) GitHub, which sends you to the 3rd party site with a key, the site uses that key to check with GitHub and get a PAT for you that the 3rd party site can use on your behalf.