

Goate: XLink and beyond

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This presentation will cover:

- Weaknesses of HTML linking
- HTML as a low-level linking language
- Emulating XLink
- Introducing Goate
- Presentation
- Beyond XLink

Weaknesses of HTML linking



It is not possible to do a simple translation from XLink to HTML.

HTML linking trails XLink in three ways:

- Links are uni-directional
- Links are unary
- Lack of flexible destination specification

Low level linking



A low level linking language:

- Allows movement from one document to another
- Allows navigation to any point in the destination document
- Allows links to be inserted into the destination document

HTML linking meets these criteria, with the caveat that the in-page location must be predeclared by the destination document's author.

Low level linking



Low level linking is analogous to low level programming.

A low level programming language is capable of all the same tasks as a high level language.

A high level language can be emulated using a low level language.

HTML can emulate XLink because:

- A bi-directional link can be emulated with two uni-directional links
- A n -ary link is a collection of unary links
- Flexible destination specification can be emulated by placing an in-page anchor at the appropriate point in the destination document

Emulating XLink



Both bi-directional linking and flexible destination specification require write access to the destination document.

We can't assume write access for a document on the Internet.

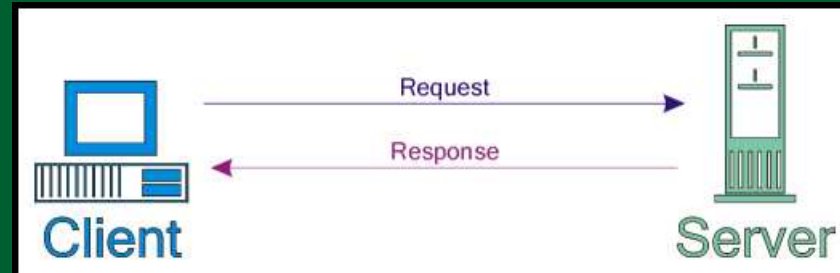
Introducing Goate



Goate is a system that provides the emulation of high-level linking languages in HTML.

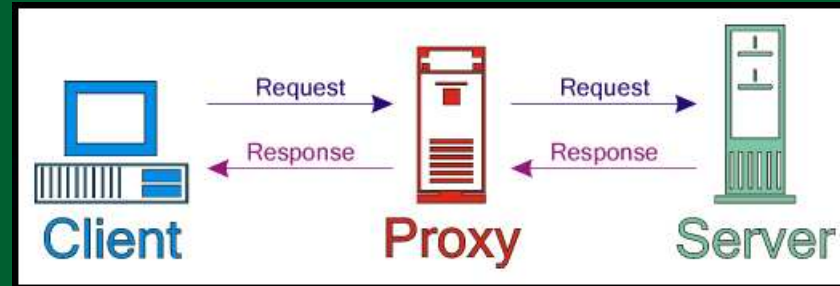
The issue of write access is solved by operating as a HTTP proxy, altering documents as they pass through.

HTTP proxying



Without proxy

HTTP proxying



With proxy

HTTP proxying



Proxies are usually used for network infrastructure reasons, and operate transparently.

By altering the content we solve the problem of needing write access.

Back links and in-page anchor points can be added by the proxy.

Link presentation



Links are background shaded.

Different colours differentiate between:

- Forwards and backwards links
- Single-headed and multi-headed links.

Link presentation



Mozilla screenshot

Language modules



Goate is not tied to XLink more than any other language.

Languages are implemented as modules loaded at run-time.

We hope to implement many linking languages in this way.

Any questions?

www.goate.org