FBJS

A brief overview
Goals

• Allow application developers to create rich applications on Facebook.
• Don’t endanger our user’s privacy.
Features

- Large subset of ECMA-262... except
  - `eval()` and `with(){}`
  - Prototypes of native objects [Objects, Array, Number, etc]
  - Several undocumented quirks

- DOM manipulation
  - Non-standard getters: `getChildNodes`, `getFirstChild`, `setValue`, etc. Most DOM attributes are supported in some fashion.
  - `innerFBML`, `innerXHTML`
Features

• Facebook-specific host objects
  - Ajax (XMLHttpRequest wrapper)
    • Capable of returning blessed FBML strings
    • Breaks same origin policies
  - Animation
  - Dialog
    • Capable of extending an application’s DOM authority
DOM Authority

- Applications are granted authority to entire DOM branches
  - There are exceptions -- opaque nodes
- Host objects may grant authority to more branches.
Nat Brown

iLike Sidestage 2
Nat has added 16 songs and likes 154 artists.

Write a comment about my music...

Post

Songs iLike

- I Like by Men Without Hats
  - Buy
  - iLike
- Kick Out the Jams by The Presidents Of The United States Of America (on tour)
  - Buy
  - Dedicate
- Thunderstruck by AC/DC
  - Buy
  - iLike
- Ring Of Fire by Social Distortion (on tour)
  - Buy
  - Dedicate

Add music to your profile:

Artists iLike

Photos

Photos

2 of 3 albums

Mobile Uploads
Updated
August 7

Doing the Bauhaus
Created August 4

Advertise

College Men Needed

We are looking for college men to share their opinions. Quick 60 second survey. Win prizes for your thoughts!

Sell Your Dvd's For Cash

We buy dvds, cds, and video games. We pay cash immediately via check or Paypal. Free shipping.

buybackmadness.com
Entry Points

- Canvas pages may execute Javascript on DOMReady
- FBJS embedded on a profile must receive an “active” DOM event before being activated
Implementation

• Lexer [ not a parser :( ]
  – Namespaces identifiers by using a unique application id

• Statically removes known evils:
  – constructor, caller, __proto__, __parent__, etc

• Run-time which also imposes the static limitations
What We Don’t Address

- Communication between applications
- Information leakage: `img.src`, Ajax (XMLHttpRequest)
- Method stealing, and mutability
The Future

- Secure and implicit getters and setters -- getParentNode is cumbersome
- Browser eccentricities be gone!
- Allow simulated mutability of native objects
- `eval(str)` and `new Function(str)` under controlled circumstances
- Selected features from future iterations of Javascript
Thanks