

Making Gecko Load XML Incrementally

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Mozilla and Me

- Involved from mid-1999 to early 2003 as a “quality assurance volunteer”
- Wrote the Mozilla Web Author FAQ
- Had contributed a couple of lines of C++ to Gecko and a few lines of JavaScript to Seamonkey

The Project

- A better front end for the text zoom
- **Incrementalization of the XML content sink**
- Filler work on Mac-specific stuff

Bug 18333

- “XML Content Sink should be incremental”
- Filed on 1999-11-09
- Triaged out of Netscape 6
- Dormant for years
- Made famous by the application/xhtml+xml vs. text/html permathread

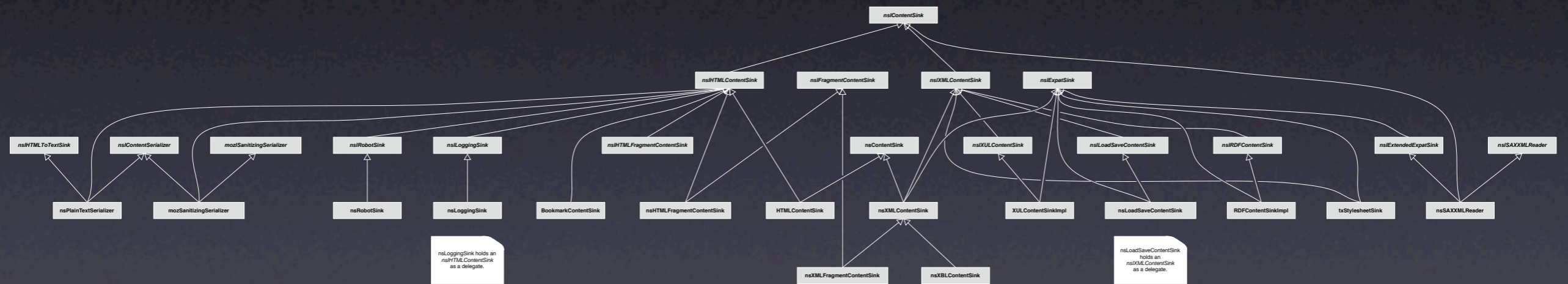
The Problem

- If the document is huge or the connection is slow...
- The rendering of HTML documents starts before the end has arrived
- XML documents (real XHTML, SVG, MathML) are only displayed once fully loaded from the network

Fixing It

- Plan: see what the HTML side does and do the same
- Expected working set: 7 kLOC
 - Printed it, had it bound and read it
- The actual working set turned out to be even larger...

The Class Hierarchy



Implementation

- Imitated the HTML side as planned
- Had to modify the code between the XML parser and the sink
- 109.19 KB with diff -u

Problems?

- Broke MathML
- Actually, it was broken before—just hidden
- Was fixed

Status

- Awaiting review
- Hopefully will ship in Firefox 3.0