Robust Anchoring

How to make our notes really stick

Where do we come from?

- Baseline: OKFN Annotator
- Goals:
  - Different UI and workflow, app integration
  - Improved/changed internals
- Current situation:
  - Fork + Integration (sorry, folks)
  - We are in the process of upstreaming everything

More formats

- Baseline: web document
- Generic requirements
- Other formats
  - PDF.js
  - Epub.js
  - Scribd ?
  - Google docs?

More information stored

- Baseline: XPath range
- Define target with generic selectors
  - Multiple targets per annotation
  - Multiple selectors per target
- New selectors:
  - RangeSelector
  - TextPositionSelector
  - TextQuoteSelector

More matching strategies

- Baseline: apply XPath
- Define interface
- Improved strategies
  - From position selector
  - Context-aware fuzzy matching
  - Simply fuzzy matching

Two-phased anchoring

- Baseline process
- Problem: lazy rendering
- Proposed solution: two-phased rendering
  a. Step 1: create an anchor (based on corpus)
  b. Step 2: render highlight

Typed anchoring

- Baseline: text highlights
- Abstract type (for anchors and highlights)
- Custom anchor/highlight types
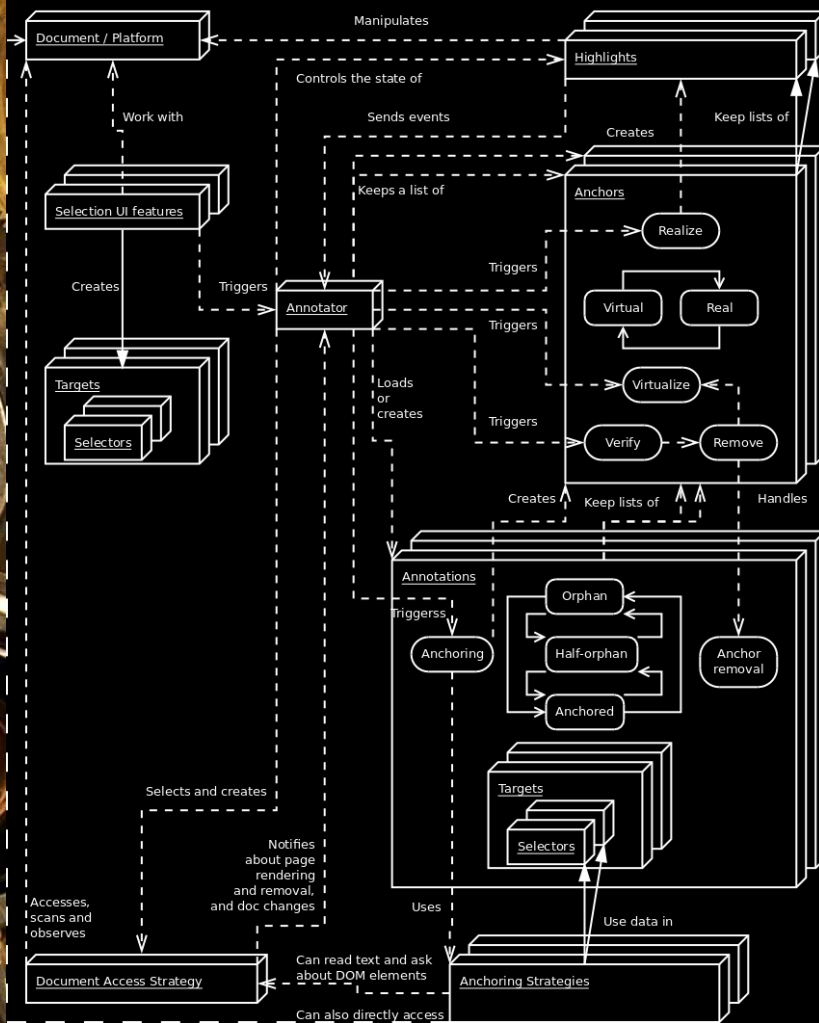 - Image annotations via Annotorious
  - More to come

Dynamic anchoring

- Baseline: doc is stable, anchoring is forever
- Problem: dynamic sites
- Proposed solution: dynamic anchoring
  - Observe DOM change
  - Anchoring states: orphan, half-orphan, anchored
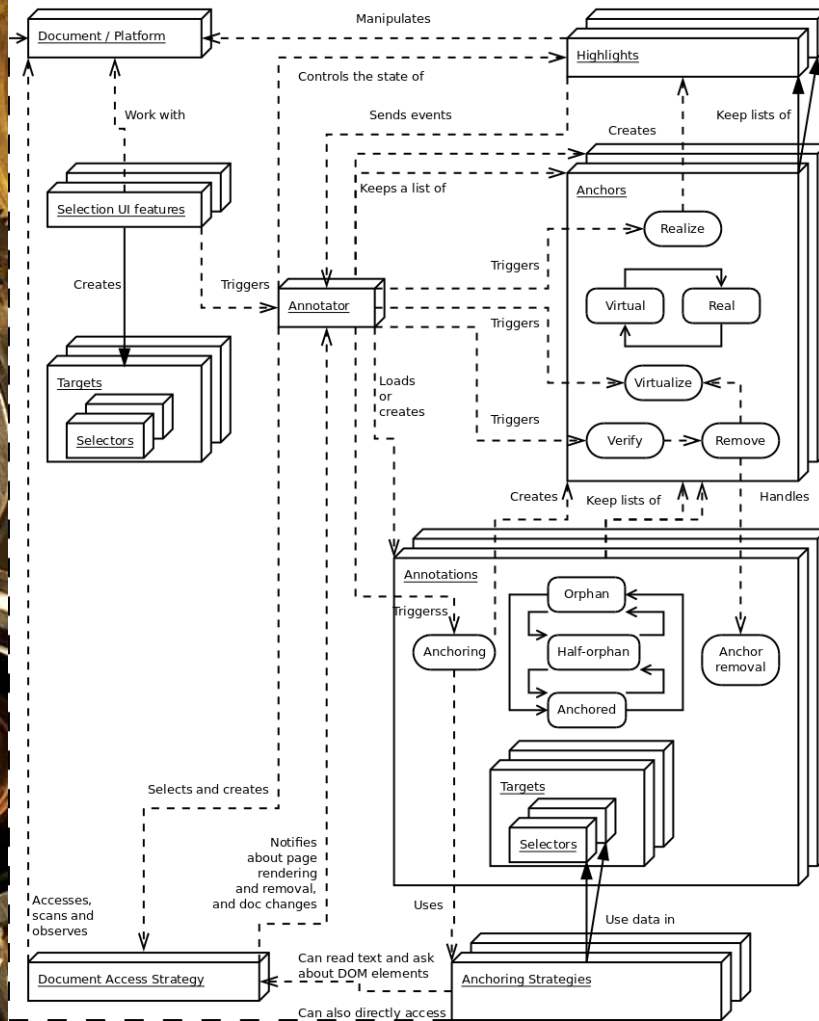 - Anchoring-on-demand
  - Verify, remove

Cross-format, cross-document

- Baseline: URL
- What is the real target?
  - Copies - OK
  - Pagination, printer-friendly, etc - OK
  - Different formats (HTML, PDF, etc…)   - OK
  - …
  - Different languages / editions?
  - Same information in different documents?

Components involved in anchoring

- Document / Platform
  - Manipulates → Highlights
- Controls the state of
- Sends events
- Work with
- Selection UI features
  - Creates → Targets
    - Selectors
- Triggers → Annotator
- Keeps a list of
- Creates → Anchors
  - Realize
  - Virtual — Real
  - Virtualize
  - Verify — Remove
  - Triggers
  - Handles
- Keep lists of
- Loads or creates
- Creates → Annotations
  - Anchoring
    - Orphan
    - Half-orphan
    - Anchored
  - Triggerss
  - Anchor removal
  - Targets
    - Selectors
- Keep lists of
- Selects and creates
- Notifies about page rendering and removal, and doc changes
- Uses
- Use data in
- Accesses, scans and observes
- Document Access Strategy
- Can read text and ask about DOM elements
- Anchoring Strategies
- Can also directly access

Components involved in anchoring

Questions