Blender Backend

Ere Maijala, VuFind Summit 2022
What is Blender

- A virtual search backend
- Combines two or more actual backends
- Provides results in a unified list
Design Choices

- Initial local implementation for only 2 backends
- Further work to make it virtually unlimited
- Requires the actual backends to be properly configured first
- Facets and filters must also work
- There should be a way to choose how records are merged to a single list
- Tests should cover all new or changed functionality
- Blender should be as backend and format agnostic as possible
  - Also authority records can be included
How Things Are Done

• Order of initial results can be configured, then round-robin
  • Sadly no magic relevance ranking over all the results, but still ok

• Search types and settings are mapped to the corresponding search values for backends
• Facet values are mapped to unified lists
• Active filters can be mapped to backends
  • Or ignored
  • Or made to disable backends that don’t support it
• Unavailable backends are reported to the user
• Separation of search backend from record backend (#2361)
• Unification of internal facet presentation (#2372)
• Caching support for commonly used backends (#2406)
• Several filter handling fixes (#2353)
• Assorted fixes and improvements (#2347, #2348, #2354, #2356, #2359, #2362, #2363, #2370, #2371, #2373, #2386, #2387, #2395, #2396, #2397, #2398)
Work on Blender

- Almost two months
- 147 commits
- 220 comments
- Thanks to Demian Katz for invaluable feedback and effort
Results

- It Blends!
- Fixes and architectural improvements
- Improved test coverage
- Sample mappings for:
  - Solr
  - Solr authorities
  - Ex Libris CDI (Central Discovery Index) via Primo
  - EBSCO Discovery Service (EDS)
Limitations

- Only basic search
- Deep paging not really feasible
- No magic inside
- Some advanced features such as full facet list not available
- Records as search results need to have a relatively uniform look
Potential Improvements

- Smarter paging
  - Store state so that we know what to fetch next
- Score mapping for better blending
  - Might be unfeasible
- Try to somehow handle sorting by other than relevance to make the results more continuous across sources
• Documentation: https://vufind.org/wiki/configuration:blender
• The main pull request: https://github.com/vufind-org/vufind/pull/2341
Thank You!

ere.maijala@helsinki.fi
National Library of Finland
Library Network Services
#Finnafi