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Feed Seek for the Atom Publishing Protocol
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Abstract

This memo presents a set of URI parameters used identify segments of an Atom Publishing Protocol feed. It also presents a syntax for declaring the placement of those parameters in a URI.

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1. Introduction

When Atom Publishing Protocol [APP-Basic] clients encounter an APP collection, they may require smaller or larger frames of entries than the server provides by default. Most servers provide between 5 and 25 entries per Atom Feed Document [AtomFormat]. This frame can be far too large for a bandwidth and resource-constrained device, which might only have room to display two or three titles at a time. This frame can be far too small for a client attempting to sync up with a collection that contains many thousands of members.

2. Parameters

HTTP URIs [RFC3986] provide a useful mechanism for composing parameterized requests--the query string [RFC2616]. This document outlines four parameters that are generally useful to APP clients, but may not be useful for every APP collection.

count: The maximum number of Atom Entries to be included in the response. The field is an integer.
offset: The offset at which to begin the sequence of entries that match a given request. The field is an integer.
begin: Atom entries in the returned feed have an atom:updated date later in time than the 'begin' date. The field matches the syntax of an Atom Date Construct [AtomFormat].
end: Atom entries in the returned feed have an atom:updated date equal or earlier in time than the 'end' date. The field matches the syntax of an Atom Date Construct [AtomFormat].

None of the parameters are required, and servers could add additional parameters.

Example Selection URI (disregard line break)

```
http://example.com/foo?begin=2003-12-13T18:30:02Z\
&end=2003-12-25T18:30:02Z&offset=2&count=4
```

Seek URIs are templated by surrounding the field names in brackets. For example, the 'count' field would appear as '{count}' in a template.

An example seek template:

```
http://example.com/app?b={begin}&e={end}&i={offset}&c={count}
```

All parameters are optional, so servers interpret requests with missing parameters using the list below:

If no 'end' field is present: The 'end' date is considered to be the updated date of the collection's most recently updated member resource.
If no 'begin' field is present: The 'begin' date is considered to be the update date of the collection's least recently updated member resource.
If no 'offset' field is present: The 'offset' integer is considered to be 0.
If no 'count' field is present: The 'count' integer is determined by the server.

3. The 'app:seek' Attribute

The "app:seek" attribute can be added to an anchor element contained in a server's XOXO Service Outline [XOXO]. When present, this namespace-qualified attribute provides a template for the parameterized GET requests described by this document. After substitution of the appropriate parameters, the resulting URI reference is interpreted relative to the in-scope base URI. The APP namespace is "http://purl.org/atom/app#". This document refers to it by using the prefix "app", but that prefix is arbitrary.

An example Service Outline with an app:seek attribute:

```
<ul class="xoxo" xmlns:app="http://purl.org/atom/app#">
 <li>
  <a href="/entries"
     app:select="/entries?b={begin}&e={end}&i={offset}&c={count}"
     rel="entry" type="application/atom+xml">Main Blog</a>
    <ul>
     <li><a href="/app/collection.py?id=2&amp;type=media"
            rel="media" type="application/atom+xml">Photos</a>
     </li>
     <li><a href="/app/collection.py?id=14"
            rel="entry" type="application/atom+xml">Drafts</a>
     </li>
   </ul>
 </li>
 <li>
  <a href="/app.py?id=3&amp;type=entries"
     app:select="/app.py?id=3&b={begin}&e={end}&i={offset}&c={count}"
     rel="entry" type="application/atom+xml">Side Bar Blog</a>
  <ul>
   <li><a href="/app/collection.py?id=4&amp;type=media"
          rel="media" type="application/atom+xml">Stuff</a>
   </li>
  </ul>
 </li>
</ul>
```

4. Security Considerations

Malicious or buggy clients could mount a Denial-of-Service attack by sending large date ranges or integers as parameter values.

5. IANA Considerations

None

6. Informative References

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Appendix A. Contributors

This draft is a variant of the in-progress Atom Publishing Protocol specification from the IETF Atompub WG, and owes a debt to the WG's members.

Appendix B. Change History

-00: Split from draft-sayre-atompub-protocol-basic-00 / -02

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