

**Feed Seek for the Atom Publishing Protocol
draft-sayre-atompub-protocol-seek-00.txt**

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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&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&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&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

[APP-Basic]

Sayre, R., "The Atom Publishing Protocol (Basic)", work-in-progress, October 2005.

[AtomFormat]

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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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