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WebDAV PROPFIND Extension To List Specified Namespaces

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2 Abstract

This document specifies an extension to the [\[WEBDAV\]](#) PROPFIND method to permit a WebDAV client to request all properties which belong to a specified namespace or namespaces.

3 Introduction

This document specifies an extension to the [\[WEBDAV\]](#) PROPFIND method to permit a WebDAV client to request all properties which belong to a specified namespace or namespaces.

A WebDAV application using a custom namespace for application-specific data may occasionally need to use PROPFIND to list all a resource's properties from that namespace. (Similarly, a WebDAV client might need to know all DAV: properties, but not care about non-standard properties.) In such a case, the client must choose between the <allprop> element, which will retrieve all properties on the resource, and the <prop> element, which will retrieve specified properties only. The problem with <allprop> is

that the resource may have many properties from other namespaces, in which the application is not interested. The problem with <prop> is that the client may not know all the property names which may be present (for example, if the client is too general-purpose to permit it to be configured with the list of property names, or if property name munging is being used). A third choice would be to use

<propname> to list all the resource's properties without their contents, then use <prop> with just the properties in the desired namespace; the problem with this approach is that it requires an extra HTTP request.

This document proposes a middle ground, an extension to <allprop> and <propname> which provides a list of namespaces to search.

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in [[MUSTS](#)].

[4](#) Extension definition

Two new XML elements are proposed, <namespace> and <namespaces>. In the idiom of [[WEBDAV](#)]:

[4.1](#) namespaces XML Element

Name: namespaces

Namespace: DAV:

Purpose: The namespaces XML element specifies that the enclosing allprop or propname element applies only to properties belonging to the namespaces listed in the enclosed namespace elements.

[4.2](#) namespace XML Element

Name: namespace

Namespace: DAV:

Purpose: The namespace XML element specifies a namespace in the namespaces list. <namespace> appears inside <namespaces>, and has a single attribute, uri, the URI of the namespace.

[5](#) Examples

[5.1](#) Fetching all DAV: properties

Request:

```
PROPFIND /index.html HTTP/1.1
Host: www.example.com
Content-Length: xxxx
Content-Type: text/xml

<D:propfind xmlns:D="DAV:">
<D:allprop>
<D:namespaces>
<D:namespace uri="DAV:"/>
</D:namespaces>
</D:allprop>
```

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```
</D:propfind>
```

Response:

```
HTTP/1.1 200 OK
Content-Type: text/xml
Content-Length: xxxx

<D:prop xmlns:D="DAV:">
<D:lockentry>
<D:lockscope><D:exclusive/></D:lockscope>
<D:locktype><D:write/></D:locktype>
</D:lockentry>

<D:lockentry>
<D:lockscope><D:shared/></D:lockscope>
<D:locktype><D:write/></D:locktype>
</D:lockentry>

<D:creationdate>1999-08-11T12:12:12Z</D:creationdate>
<D:displayname>Example.com, The Fictious Site!</D:displayname>
<D:getcontentlength>17</D:getcontentlength>
<D:getcontenttype>text/html</D:getcontenttype>
<D:getetag>xyzy</D:getetag>
<D:getlastmodified>1999-08-11T12:12:14Z</D:getlastmodified>
<D:resourcetype></D:resourcetype>

</D:supportedlock>
```

```
</D:prop>
```

5.2 Listing names of properties in two namespaces

Request:

```
PROPFIND /index.html HTTP/1.1  
Host: www.example.com  
Content-Length: xxxx  
Content-Type: text/xml
```

```
<D:propfind xmlns:D="DAV:">  
<D:propname>  
<D:namespaces>  
<D:namespace uri="http://foo.example.com"/>  
<D:namespace uri="mailto:fred@example.com"/>  
</D:namespaces>  
</D:propfind>  
</D:propname>
```

Response:

```
<D:prop xmlns:D="DAV:"  
xmlns:F="http://foo.example.com"
```

```
xmlns:M="mailto:fred@example.com">  
<F:bar/>  
<M:fred/>  
</D:prop>
```

6 Compatibility Considerations

Section 14 of [[WEBDAV](#)] specifies:

"All DAV compliant resources MUST ignore any unknown XML element and all its children encountered while processing a DAV method that uses XML as its command language."

As a result, a client which uses `<D:namespaces>` on a server which does not support it will get the base-level DAV behavior (listing all properties), exactly as if it had issued a base-level DAV request. Therefore, a client which sends PROPFIND requests using `<D:namespaces>` MUST accept responses which include properties not in the listed namespace(s).

Of course, it is always risky assuming that all implementations of a young standard adhere to all points of the standard. In this case, the risk is mitigated by the fact that section 23.3.2.2 of [\[WEBDAV\]](#) presents a (hypothetical) similar extension, <E:leave-out>, and states:

"If the previous example were submitted to a server unfamiliar with leave-out, the only result would be that the leave-out element would be ignored and a proname would be executed."

Nevertheless, since there may be some servers which, for whatever reason, violate this prescription (say, if they attempt to validate the XML request against the DTD in section 23.2 of [\[WEBDAV\]](#)), a client which uses <D:namespaces> SHOULD be aware that it may receive a 400 Bad Request from such a server, and SHOULD be able to retry the request without using <D:namespaces>.

7 Internationalization Considerations

This proposal builds on [\[WEBDAV\]](#), and inherits its internationalizability.

8 IANA Considerations

This proposal does not introduce any new IANA considerations, since it does not specify any new namespaces (in the general sense), but merely uses existing ones.

9 Security Considerations

For a server, this proposal does not introduce any new security considerations over those of [\[WEBDAV\]](#), since the information which is

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exposed is already available. There might be privacy considerations for a client, since telling the server which namespaces one wishes to search does reveal some information. Implementors must balance this concern against the efficiency gains this proposal offers.

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12 Acknowledgements

Some of the PROPFIND syntax in the examples was copied from examples in [[WEBDAV](#)].

13 References

[WEBDAV] Y. Y. Goland, E. J. Whitehead, Jr., A. Faizi, S. R. Carter, D. Jensen, "Extensions for Distributed Authoring on the World Wide Web - WebDAV." [RFC 2518](#). Microsoft, U.C. Irvine, Netscape, Novell. April, 1998.

[MUSTS] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels," [BCP 14](#), [RFC 2119](#), Harvard University, March 1997.

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