StackMap API Specification

Version 1.2, May 29, 2010

Description
This document outlines a protocol for communicating with the StackMap library mapping system to be used by third-party systems. This protocol allows a third-party system to query StackMap for information regarding the location of holdings, which the API returns in the specified format. Any questions regarding this document should be sent to feedback@stackmap.com.

Overview
The StackMap API allows a system to query StackMap’s database to retrieve range maps and information. The system accepts queries for one or more holding records, and returns the data associated with each one in the format below. The data is designed to give a third-party system all the information it needs to construct a client-side interface similar to the one available within StackMap.

Technical Specification

Request URL
All requests to the API are HTTP POST requests to http://your-domain.stackmap.com/api/, where your-domain is the specific StackMap installation for your library.

POST Data
The POST request consists of an XML document containing the requested nodes. Each node type is described below.

Search
The search node is the root of the document

- Attributes
  - version, a string corresponding to the API version requested. This document uses version="1.1"
- Child Nodes
  - One or more <holding> nodes.

Holding
A node describing a holding record to search for

- Attributes
  - None
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- Child Nodes
  - One <callno> node
  - One <location> node

**CallNo**
A node describing a call number

- Attributes
  - None
- Child Nodes
  - The text of the call number for the holding

**Location**
A unique field used by StackMap to determine the general location of the holding. This may be a library name or ID number, as well as a floor name. Consult the StackMap team for more information on this field.

- Attributes
  - None
- Child Nodes
  - The text of the location for the holding

**Library**
A node with the name of the library to search for the holding

- Attributes
  - None
- Child Nodes
  - The text of the library for the holding

**Request Example**
An example request is given below:

```xml
<?xml version="1.1"?>
<search version="1.1">
  <holding>
    <callno>ABC</callno>
    <location>STACKS</location>
    <library>LIBRARY</library>
  </holding>
  <holding>
    ...Holding 2 data...
  </holding>
  ...More Holdings...
</search>
```
The search node represents the root of the request. Each holding request is a single child of this root search node. The holding requests contain two fields each, callno and location representing the information for that holding.

Response Specification
The response from the StackMap server is an XML document which contains the information about the requested holdings. Each response node type is described below.

Holdings
The holdings node is the root of the document

- Attributes
  - version, a string corresponding to the API version requested. This document uses version="1.1"
- Child Nodes
  - One or more <holding> nodes.

Holding
The holding node corresponds to a holding node from the original request.

- Attributes
  - None.
- Child Nodes
  - One <callno> node.
  - One <maps> node.

CallNo
A node describing a call number

- Attributes
  - None.
- Child Nodes
  - The text of the call number for the holding

Notes
A node containing general notes about the given map

- Attributes
  - None.
- Child Nodes
  - A string, notes about the floor. Note that this string may contain HTML, so it will always be encapsulated as <![CDATA[ ... ]]>

Maps
A node describing all the maps associated with the holding
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- Attributes
  - None
- Child Nodes
  - One or more <map> nodes.

**Map**
A node describing a single map associated with the holding.

- Attributes
  - None
- Child Nodes
  - A single <floorno> node
  - A single <mapurl> node
  - A single <directions> node
  - A single <ranges> node

**Floorno**
A node naming the floor for the given map

- Attributes
  - None
- Child Nodes
  - The text containing the name of the floor

**Mapurl**
A node containing the URL of the map image for the given map

- Attributes
  - None
- Child Nodes
  - A string, the URL to the image for the given map

**Directions**
A node containing directions to the floor for the given map

- Attributes
  - None
- Child Nodes
  - A string, directions to the floor. Note that this string may contain HTML, so it will always be encapsulated as <! [CDATA[ ... ] ] >

**Ranges**
A node containing the collection of ranges where the holding appears on the given map

- Attributes
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- None
  - Child Nodes
    - One or more Range nodes

**Range**
A node describing a single range for a given map

- Attributes
  - **x**: An integer, the range’s x position on the map, in pixels
  - **y**: An integer, the range’s y position on the map, in pixels
  - **width**: An integer, the range’s width in pixels
  - **height**: An integer, the range’s height in pixels
- Child Nodes
  - One `<rangeno>` node
  - One `<startcallno>` node
  - One `<endcallno>` node

**Rangeno**
A node containing an integer, the Range number in the range numbering system.

- Attributes
  - None
- Child Nodes
  - An integer, the range number.

**Startcallno / Endcallno**
The starting and ending call numbers of the range. See the `<callno>` item above for specification on this item.

- Attributes
  - None
- Child Nodes
  - An integer, the range number.

**Response Example**
Below is an example response for the example query given above, from the “Request Example” section.

```xml
<?xml version="1.1"?>
<holdings version="1.1">
  <holding>
    <callno>ABC</callno>
    <notes><![CDATA[ ... ]]]></notes>
  </holding>
</holdings>
```

```xml
<maps>
  <map>
    <floorname>...</floorname>
    <mapurl>...</mapurl>
    <directions><![CDATA[ ... ]]]></directions>
```
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<ranges>
  <range x=".." y=".." width=".." height="..">
    <rangeno>...</rangeno>
    <startcallno>...</startcallno>
    <endcallno>...</endcallno>
  </range>
  <range ... >
    ...
  </range>
  ...
</ranges>

<map>
  ...
</map>
  ...
</map>

</holding>

<holding>
  ...Holding 2 data...
</holding>

...More Holdings...

</holdings>