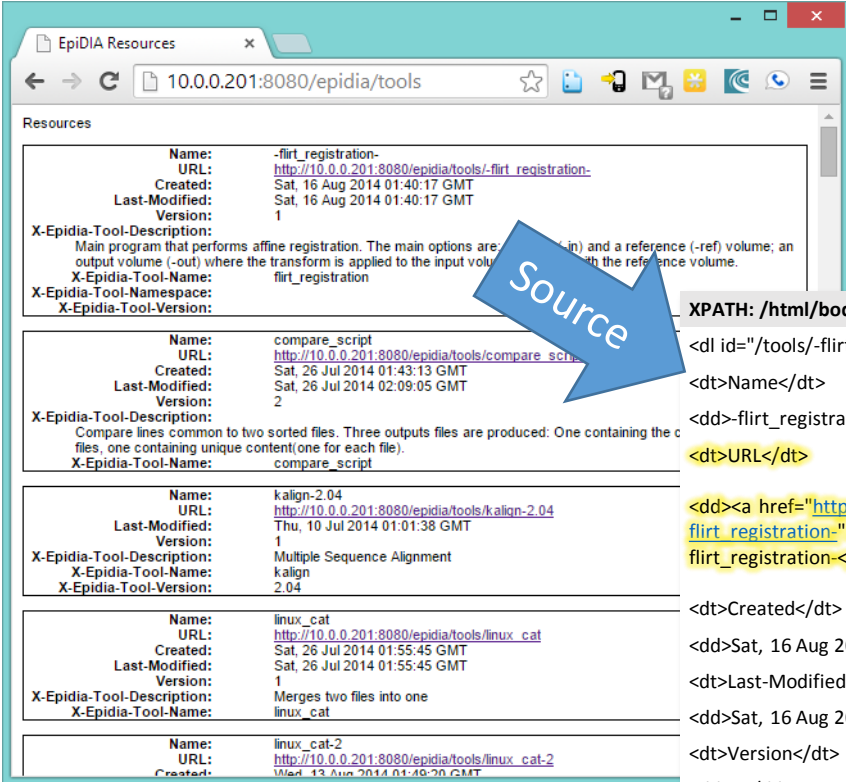


GET http://10.0.0.201:8080/epidia/tools

Returns an XHTML page consisting of DL's providing the metadata for all tools installed on the server.



Resources

Name	URL	Created	Last-Modified	Version	X-Epidia-Tool-Description	X-Epidia-Tool-Name	X-Epidia-Tool-Version
flirt_registration	<a href="http://10.0.0.201:8080/epidia/tools/-flirt_registration-">http://10.0.0.201:8080/epidia/tools/-flirt_registration-</a>	Sat, 16 Aug 2014 01:40:17 GMT	Sat, 16 Aug 2014 01:40:17 GMT	1	Main program that performs affine registration. The main options are: an input (-in) and a reference (-ref) volume; an output volume (-out) where the transform is applied to the input volume with the reference volume.	flirt_registration	
compare_script	<a href="http://10.0.0.201:8080/epidia/tools/compare_script">http://10.0.0.201:8080/epidia/tools/compare_script</a>	Sat, 26 Jul 2014 01:43:13 GMT	Sat, 26 Jul 2014 02:09:05 GMT	2	Compare lines common to two sorted files. Three outputs files are produced: One containing the common lines, one containing unique content (one for each file).	compare_script	
kalign-2.04	<a href="http://10.0.0.201:8080/epidia/tools/kalign-2.04">http://10.0.0.201:8080/epidia/tools/kalign-2.04</a>	Thu, 10 Jul 2014 01:01:38 GMT		1	Multiple Sequence Alignment	kalign	2.04
linux_cat	<a href="http://10.0.0.201:8080/epidia/tools/linux_cat">http://10.0.0.201:8080/epidia/tools/linux_cat</a>	Sat, 26 Jul 2014 01:55:45 GMT	Sat, 26 Jul 2014 01:55:45 GMT	1	Merges two files into one	linux_cat	
linux_cat-2	<a href="http://10.0.0.201:8080/epidia/tools/linux_cat-2">http://10.0.0.201:8080/epidia/tools/linux_cat-2</a>	Wed, 13 Aug 2014 01:48:20 GMT					

Source

XPATH: /html/body/dl[@id="/tools/-flirt-registration-"]

```
<dl id="/tools/-flirt_registration-">
  <dt>Name</dt>
  <dd>-flirt_registration</dd>
  <dt>URL</dt>
  <dd><a href="http://10.0.0.201:8080/epidia/tools/-flirt_registration-">http://10.0.0.201:8080/epidia/tools/-flirt_registration-</a></dd>
  <dt>Created</dt>
  <dd>Sat, 16 Aug 2014 01:40:17 GMT</dd>
  <dt>Last-Modified</dt>
  <dd>Sat, 16 Aug 2014 01:40:17 GMT</dd>
  <dt>Version</dt>
  <dd>1</dd>
  <dt>X-Epidia-Tool-Description</dt>
  <dd>Main program that performs affine registration. The main options are: an input (-in) and a reference (-ref) volume; an output volume (-out) where the transform is applied to the input volume to align it with the reference volume.</dd>
  <dt>X-Epidia-Tool-Name</dt>
  <dd>flirt_registration</dd>
  <dt>X-Epidia-Tool-Namespace</dt>
  <dd></dd>
  <dt>X-Epidia-Tool-Version</dt>
  <dd></dd>
</dl>
```

Task: Create a new HTML page that reads the tools from the server and presents them in a list ordered alphabetically by their “X-Epidia-Tool-Name” with hyperlinks to the tool’s URL. Add style.

- [compare\\_script](#)
- [flirt\\_registration](#)
- [kalign](#)
- [linux\\_cat](#)

Example Source

```
<ul>
<li><a href="http://10.0.0.201:8080/epidia/tools/compare_script">compare_script</a></li>
<li><a href="http://10.0.0.201:8080/epidia/tools/-flirt_registration-">flirt_registration</a></li>
<li><a href="http://10.0.0.201:8080/epidia/tools/kalign-2.04">kalign</a></li>
<li><a href="http://10.0.0.201:8080/epidia/tools/linux_cat">linux_cat</a></li>
</ul>
```

compare\_script

flirt\_registration

kalign

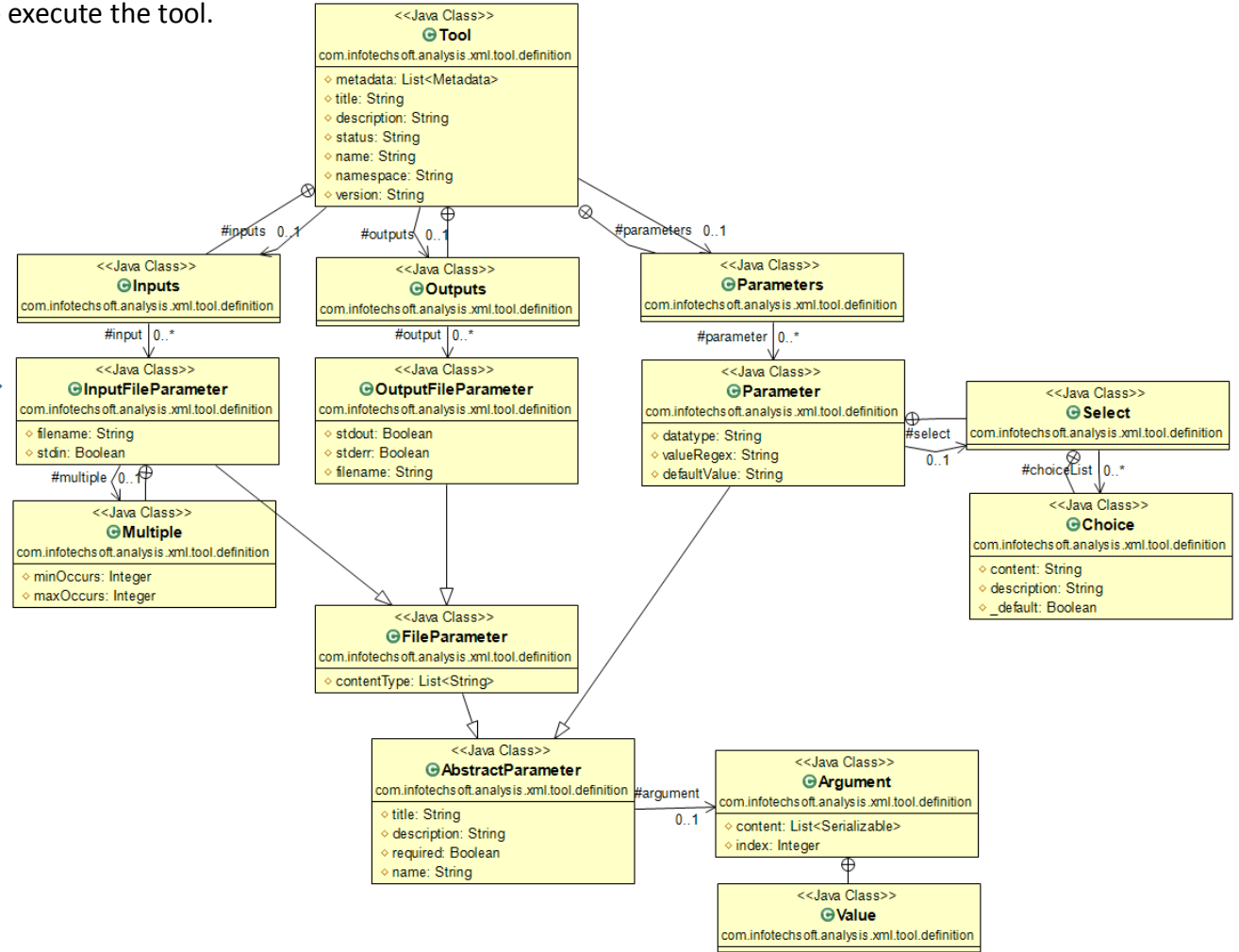
linux\_cat

GET http://10.0.0.201:8080/epidia/tools/kalign-2.04

Returns an XML document describing the inputs, outputs, and parameters required to execute the tool.

```
10.0.0.201:8080/epidia/tools/kalign-2.04
This XML file does not appear to have any style information associated with it. The document tree is shown below.
<?xml version="1.0" encoding="UTF-8" standalone="yes" ?>
<tool xmlns="http://www.infotechsoft.com/analysis/schema/tool/definition" name="kalign" version="2.04">
  <script id="tinyhippos-injected"/>
  <title>Kalign</title>
  <description>Multiple Sequence Alignment</description>
  <inputs>
    <input name="in_seq">
      <title>Sequences</title>
      <description>Fasta file of sequences to align.</description>
      <required>true</required>
      <argument>
        <value/>
      </argument>
      <content-type>fasta</content-type>
    </input>
  </inputs>
  <outputs>
    <output name="aligned_seq">
      <title>Aligned Sequences</title>
      <description>Aligned sequences</description>
      <required>true</required>
      <argument>
        <value/>
      </argument>
    </output>
  </outputs>
  <parameters>
    <parameter name="format">
      <title>Output Format</title>
      <required>true</required>
      <argument>
        <value/>
      </argument>
    </parameter>
  </parameters>
</tool>
```

Tool Schema



Task: Update the HTML page to override the tool link's onClick behavior to display the tool's description in another DIV element on the page. For the tool's inputs, outputs, and parameters display it's name and title. Add style.

compare\_script

flirt\_registration

kalign

linux\_cat

#### Tool Information

**Title:** Kalign

**Name:** kalign

**Namespace:**

**Version:** 2.04

**Description:** Multiple Sequence Alignment

#### Inputs

1. in\_seq – Sequences

#### Outputs

1. aligned\_seq – Aligned Sequences

#### Parameters

1. format – Output Format
2. gpo – Gap open penalty
3. gpe – Gap extension penalty
4. - Terminal gap extension penalty
5. bonus – Matrix Bonus
6. distance – Distance Method

```
<tool xmlns="http://www.infotechsoft.com/analysis/schema/tool/definition" name="kalign" version="2.04">
  <script id="tinyhippos-injected"/>
  <title>Kalign</title>
  <description>Multiple Sequence Alignment</description>
  <inputs>
    <input name="in_seq">
      <title>Sequences</title>
      <description>Fasta file of sequences to align.</description>
      <required>true</required>
      <argument>
        -i
        <value/>
      </argument>
      <content-type>fasta</content-type>
    </input>
  </inputs>
```

Task: Update the HTML page to add drag-and-drop behavior, such that the tool links can be dragged and dropped onto the tool description DIV and its information is displayed.

compare\_script

flirt\_registration

kalign

linux\_cat

Tool Information

Title: Kalign

Name: Kalign

Version: 2.04

Description: Multiple Sequence Alignment

Inputs

1. in\_seq – Sequences

Outputs

1. aligned\_seq – Aligned Sequences

Parameters

1. format – Output Format

2. gpo – Gap open penalty

3. gpe – Gap extension penalty

4. - Terminal gap extension penalty

5. bonus – Matrix Bonus

6. distance – Distance Method

linux\_cat

**PUT http://10.0.0.201:8080/epidia/tools/kalign-2.04**  
Uploads a tool to the server, adding or replacing the tool with the same identifier.

```
// JavaScript code fragment to PUT a file
var xhr = new XMLHttpRequest();
xhr.open("PUT", '/epidia/tools/' + tool.name, true);
xhr.send(tool);
```

Task: Update the HTML page to add a button that, when clicked, will allow the tool’s title, name, namespace, version, and description to be edited. Add a second button that, when clicked, modifies the tool’s XML and uploads it to the server.

compare\_script

flirt\_registration

kalign

linux\_cat

Tool Information

Title: Kalign

Name: kalign

Namespace:

Version: 2.04

Description:

Inputs Multiple Sequence Alignment

1. in\_seq – Sequences

Outputs

1. aligned\_seq – Aligned Sequences

Parameters

1. format – Output Format

2. gpo – Gap open penalty

3. gpe – Gap extension penalty

4. - Terminal gap extension penalty

5. bonus – Matrix Bonus

6. distance – Distance Method

Edit

Save