

Joomla! Plugins & AJAX

Extending Extensions

components/com_search/

```
$app =& JFactory::getApplication();
```

```
$result = $app->triggerEvent('onSearch', array($terms));
```

Plugin Name	Enabled	Order	Type▲	File
Search - Articles	✔	▼	search	articles
Search - Members	✔	▲	search	members

JDispatcher

```
mysql> select element, folder, ordering from
jos_plugins where folder = 'search' order by
ordering;
```

element	folder	ordering
articles	search	1
members	search	2

plugins/search/articles.php

```
class plgSearchArticles extends JPlugin {
    public function onSearch($terms)
    { return $articles; }
}
```

plugins/search/members.php

```
class plgSearchMembers extends JPlugin
{
    public function onSearch($terms) {
        return $members; }
}
```

```
components/com_search/
```

```
$app =& JFactory::getApplication();
```

```
list($articles, $members) = $app->triggerEvent('onSearch', array($terms));
```

JDispatcher

```
plugins/search/articles.php
```

```
class plgSearchArticles extends JPlugin {  
    public function onSearch($terms)  
    { return $articles; }  
}
```

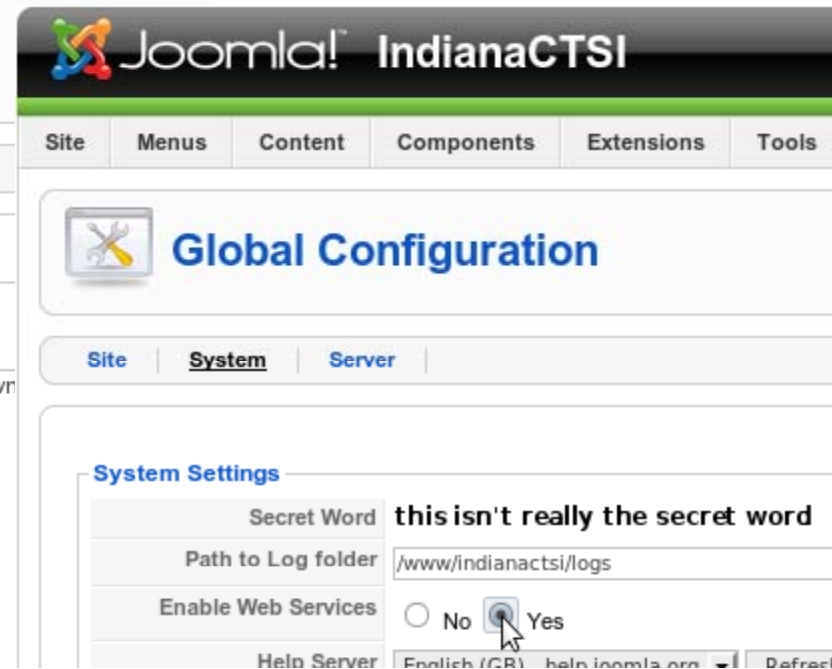
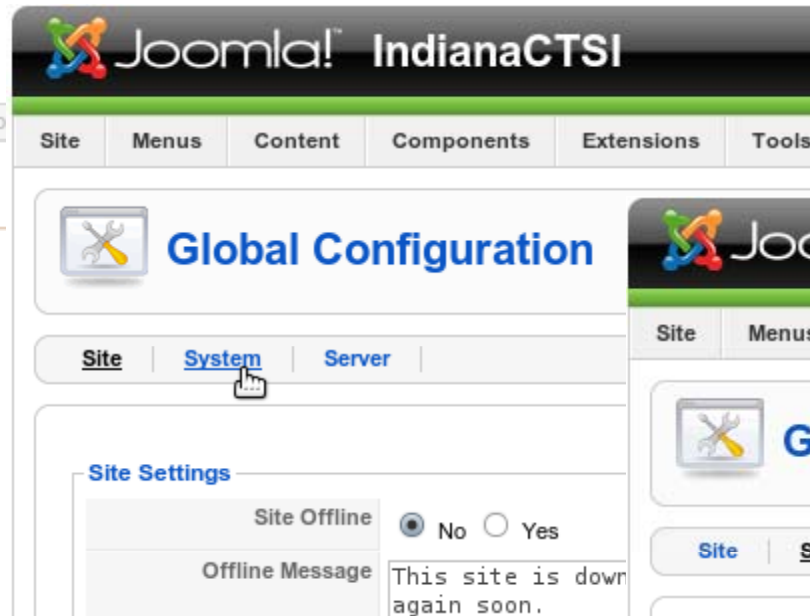
```
plugins/search/members.php
```

```
class plgSearchMembers extends JPlugin  
{  
    public function onSearch($terms) {  
        return $members; }  
}
```

Event Use in Joomla!

- Core events
 - »onAfterInitialise
 - »onAfterRoute
 - »onAfterDispatch
 - »onAfterRender
 - »onLoginUser
 - »onLoginFailure
 - »onLogoutUser
 - »OnLogoutFailure
- com_content
 - »onBeforeContentSave
 - »onAfterContentSave
 - »onPrepareContent
 - »onAfterDisplayTitle
 - »onBeforeDisplayContent
 - »OnAfterDisplayContent
- authentication
- search
- XML-RPC

XML-RPC - Enabling Web Services



XML-RPC - Introspection Event

```
class plgXmlRpcTestAjax extends JPlugin
{
    public function onGetWebServices()
    {
        global $xmlrpcI4, $xmlrpcString, $xmlrpcArray;
        return array(
            'testajax.sum' => array(
                'function' => 'plgXmlRpcTestAjaxServices::sum',
                'docstring' => 'Add a list of numbers together.',
                'signature' => array(array($xmlrpcI4, $xmlrpcArray))
            ),
            'testajax.echo' => array(
                'function' => 'plgXmlRpcTestAjaxServices::str_echo',
                'docstring' => '',
                'signature' => array(array($xmlrpcString))
            )
        );
    }
}

class plgXmlRpcTestAjaxServices
{
    public function str_echo($str)
    {
        global $xmlrpcString;
        return new xmlrpcresp(new xmlrpcval($str, $xmlrpcString));
    }

    public function sum($numbers)
    {
        global $xmlrpcI4;
        return new xmlrpcresp(new xmlrpcval(array_sum($numbers), $xmlrpcI4));
    }
}
```

XML-RPC - Introspection Event

```
<methodCall>
  <methodName>system.listMethods</methodName>
  <params/>
</methodCall>
```

```
<methodResponse>
  <params>
    <param>
      <value>
        <array>
          <data>
            <value><string>testajax.sum</string></value>
            <value><string>testajax.echo</string></value>
            <value><string>system.listMethods</string></value>
            <value><string>system.methodHelp</string></value>
            <value><string>system.methodSignature</string></value>
            <value><string>system.multicall</string></value>
            <value><string>system.getCapabilities</string></value>
          </data>
        </array>
      </value>
    </param>
  </params>
</methodResponse>
```

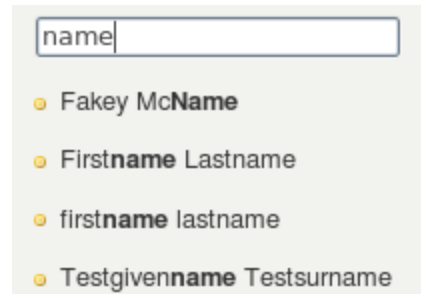
XML-RPC - Calling Methods

```
<methodCall>
  <methodName>testajax.sum</methodName>
  <params>
    <param>
      <value>
        <array>
          <data>
            <value><i4>1</i4></value>
            <value><i4>2</i4></value>
            <value><i4>3</i4></value>
            <value><i4>4</i4></value>
          </data>
        </array>
      </value>
    </param>
  </params>
</methodCall>

<methodResponse>
  <params>
    <param>
      <value><i4>10</i4></value>
    </param>
  </params>
</methodResponse>
```

- phpxmlrpc
- Mootools RPC
- JQuery RPC

Exercise! Input Completion

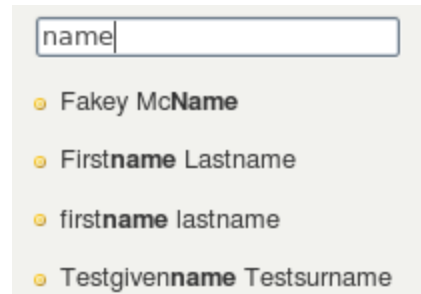


A screenshot of a web form. At the top, there is a text input field with the label 'name'. Below the input field, a dropdown menu is open, displaying four suggestions, each preceded by a small orange circle:

- Fakey McName
- Firstname Lastname
- firstname lastname
- Testgivenname Testsurname

- Download <http://hubzero.org/testajax.tar>
 - » tar xvf testajax.tar
 - » cp -r com_testajax /www/myhub/components/
 - » cp testajax.php /www/myhub/plugins/xmlrpc/
 - » INSERT INTO jos_plugins(name, element, folder, published, params) VALUES ('XML-RPC - AJAX Test', 'testajax', 'xmlrpc', 1, '');
- Visit your hub's /testajax/ path

Exercise! Input Completion



A screenshot of a web form. At the top is a text input field containing the word "name". Below the input field is a dropdown menu with four suggestions, each preceded by a small orange circle:

- Fakey McName
- Firstname Lastname
- firstname lastname
- Testgivenname Testsurname

- Write the `onGetWebServices` entry for `testajax.searchNames`
- Write the implementation method for `searchNames`
 - » `JFactory::getDBO();` for database connection
 - » `jos_users` name column can be searched with `LIKE '%term%'`
- Review the JavaScript event code at `/testajax/`
 - » `/testajax/xmlrpc.js` implements protocol (mostly)
- Bonus: add click events to result list items to fill input box