Getting started with P4JsAPI

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Enable Applets

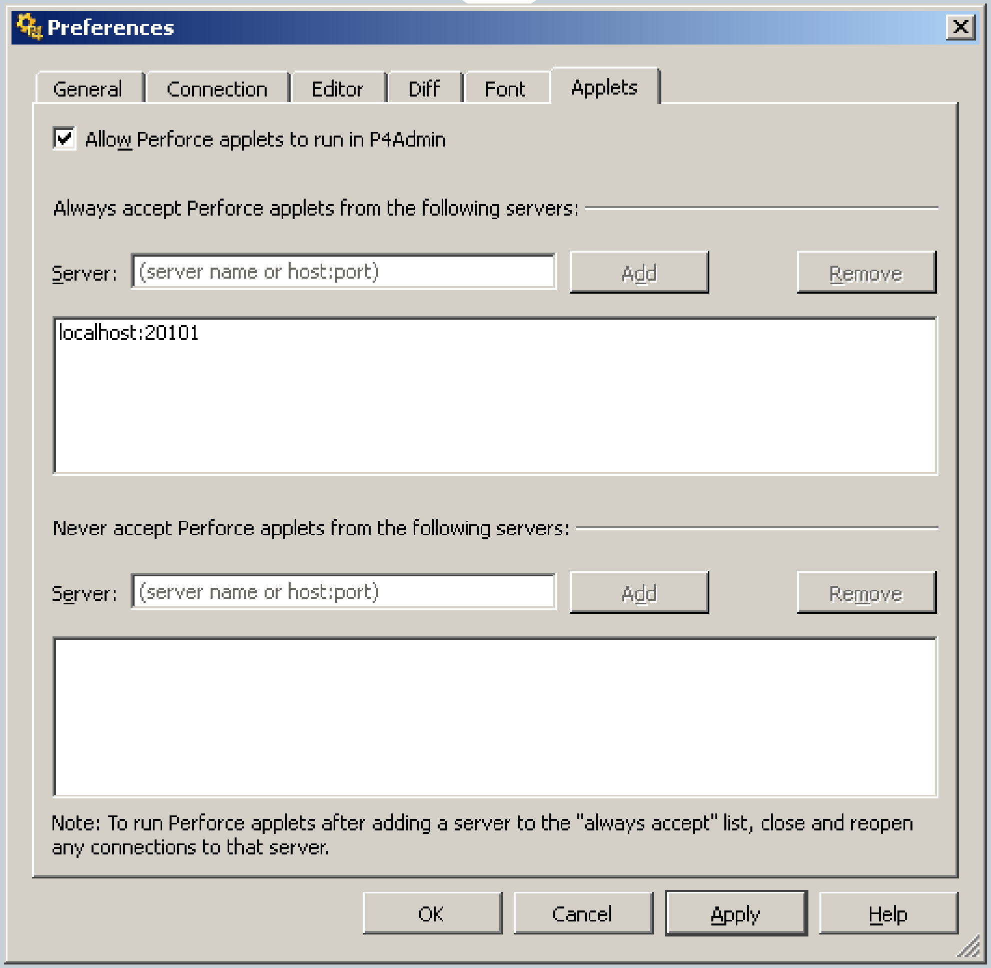
- First enable the applets for P4V and/or P4Admin.
- This is done by checking the checkbox which says

  "Allow Perforce applets to run in P4Admin"

  and adding a server within an "Applets" tab by selecting "Edit => Preferences" from the P4Admin menu.

  If you also want to enable it for P4V, you will need to do the same by selecting "Edit => Preferences" from the P4V menu.

Screen shot of P4Admin Preferences Window



Preferences

☑ Allow Perforce applets to run in P4Admin

Always accept Perforce applets from the following servers:

Server: (server name or host:port)

localhost:20101

Never accept Perforce applets from the following servers:

Server: (server name or host:port)

Note: To run Perforce applets after adding a server to the "always accept" list, close and reopen any connections to that server.

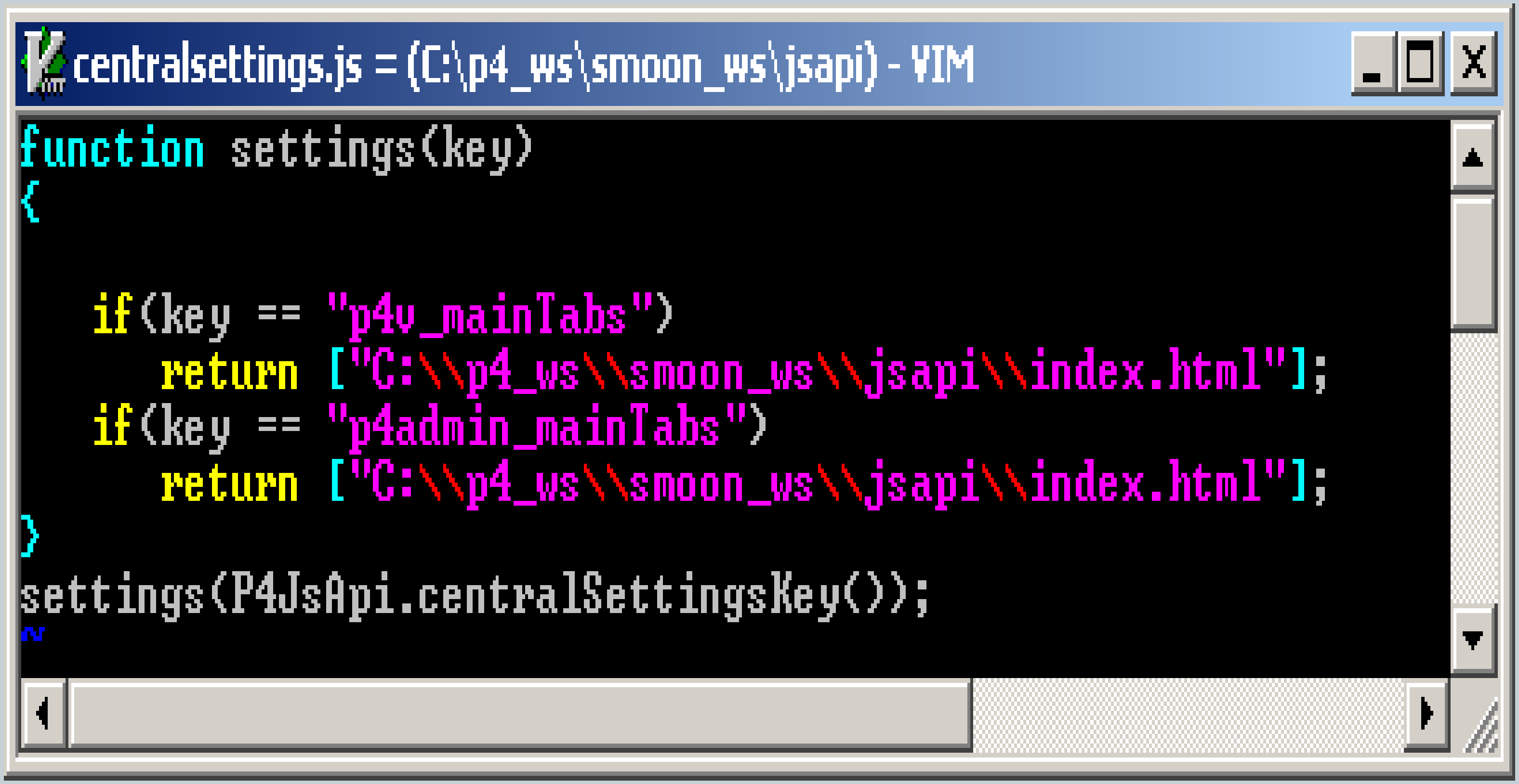
Add an entry in the protections table

- You will need the following entry in the protections table:

  list user * centralsettings //depot/jsapi/centralsettings.js

  This allows the P4JsAPI program to be available to all users.

Typical Content of centralsettings.js file

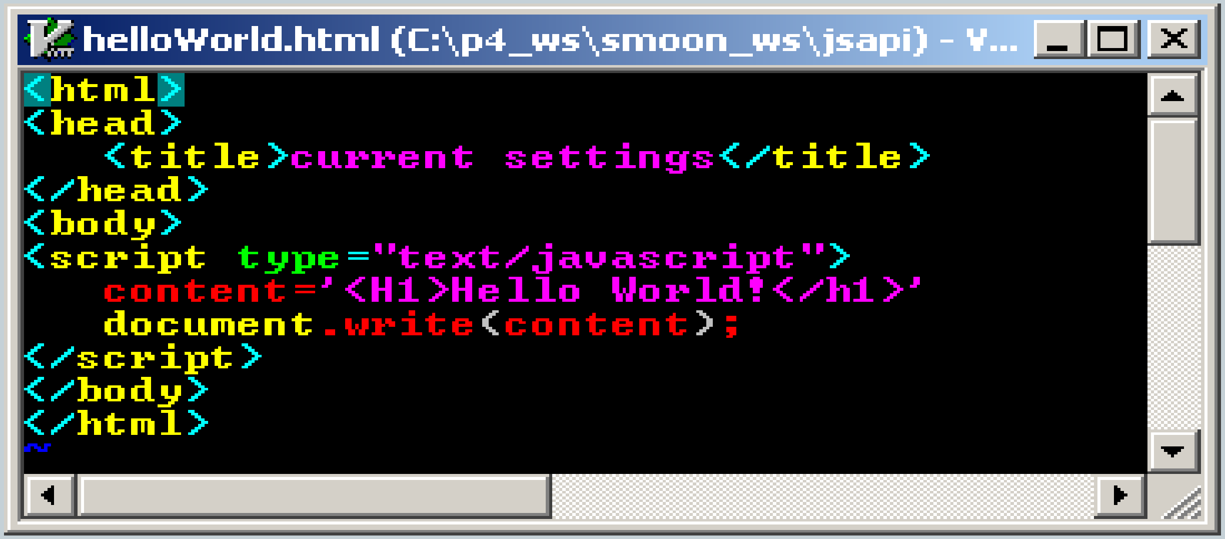


```
function settings(key)
{

   if(key == "p4v_mainTabs")
      return ["C:\\p4_ws\\smoon_ws\\jsapi\\index.html"];
   if(key == "p4admin_mainTabs")
      return ["C:\\p4_ws\\smoon_ws\\jsapi\\index.html"];
}
settings(P4JsApi.centralSettingsKey());
~
```

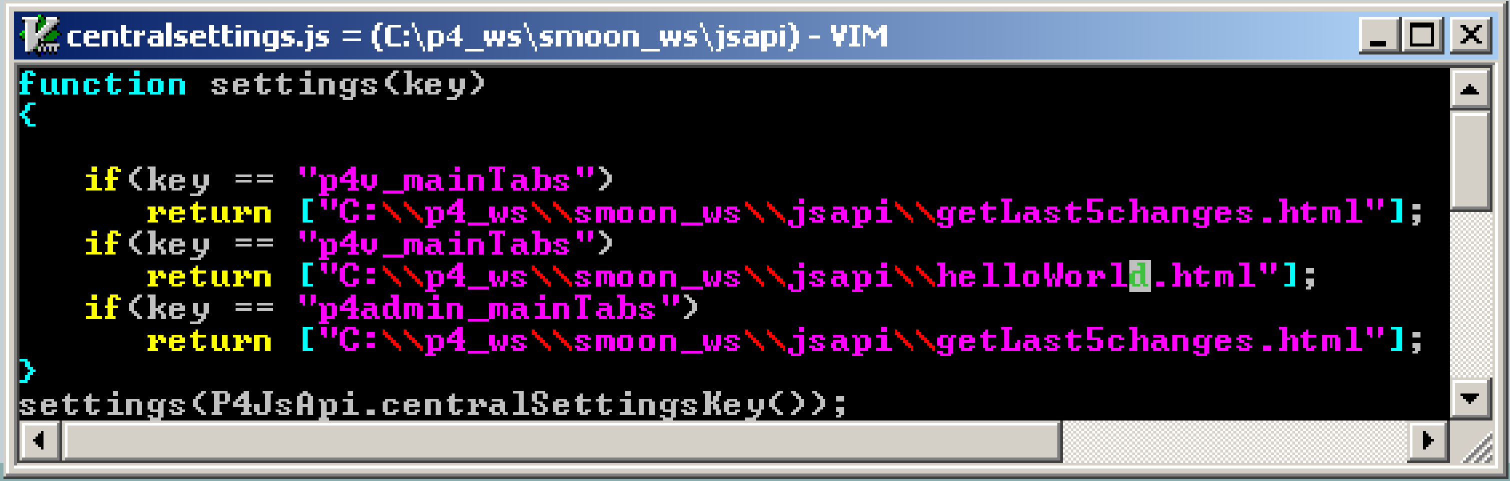
Remarks about the centralsettings.js file

- If the “key” of the conditional statement matches “p4v_mainTabs”, you will find the JavaScript applet listed under “View” from the P4V menu.
- If the “key” of the conditional statement matches “p4admin_mainTabs”, you will find a tab corresponding to the JavaScript applet when you open the P4Admin.

Example: Simplest P4JsAPI script, HelloWorld

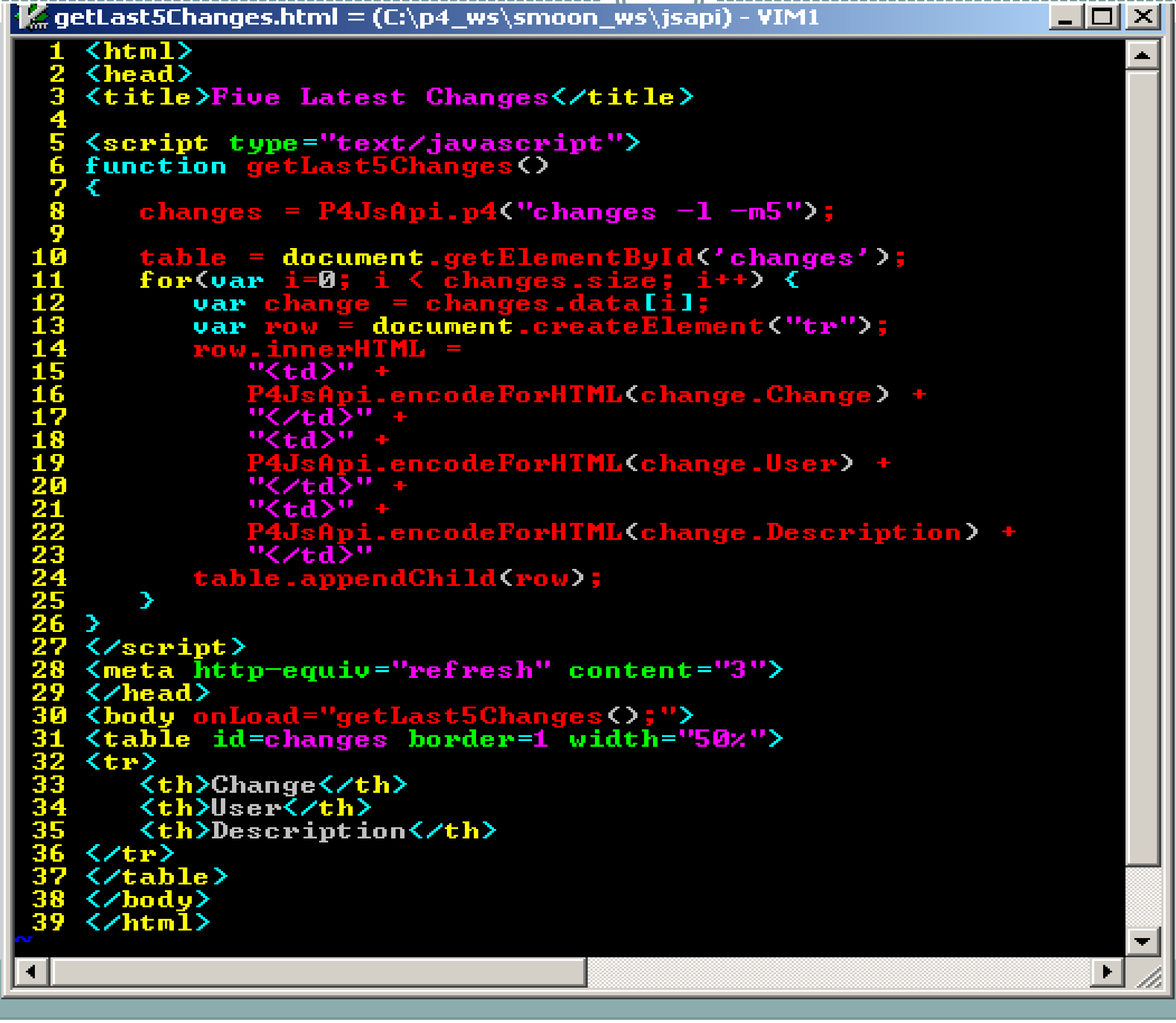


```
<html>
<head>
   <title>current settings</title>
</head>
<body>
<script type="text/javascript">
   content='<H1>Hello World!</h1>'
   document.write(content);
</script>
</body>
</html>
~
```



```
function settings(key)
{

  if(key == "p4v_mainTabs")
     return ["C:\\p4_ws\\smoon_ws\\jsapi\\getLast5changes.html"];
  if(key == "p4v_mainTabs")
     return ["C:\\p4_ws\\smoon_ws\\jsapi\\helloWorld.html"];
  if(key == "p4admin_mainTabs")
     return ["C:\\p4_ws\\smoon_ws\\jsapi\\getLast5changes.html"];
}
settings(P4JsApi.centralSettingsKey());
```

Example: Get last five submitted changes



```
<html>
<head>
<title>Five Latest Changes</title>

<script type="text/javascript">
function getLast5Changes()
{
   changes = P4JsApi.p4("changes -l -m5");

   table = document.getElementById('changes');
   for(var i=0; i < changes.size; i++) {
      var change = changes.data[i];
      var row = document.createElement("tr");
      row.innerHTML =
         "<td>" +
         P4JsApi.encodeForHTML(change.Change) +
         "</td>" +
         "<td>" +
         P4JsApi.encodeForHTML(change.User) +
         "</td>" +
         "<td>" +
         P4JsApi.encodeForHTML(change.Description) +
         "</td>"
      table.appendChild(row);
   }
}
</script>
<meta http-equiv="refresh" content="3">
</head>
<body onLoad="getLast5Changes();">
<table id=changes border=1 width="50%">
<tr>
   <th>Change</th>
   <th>User</th>
   <th>Description</th>
</tr>
</table>
</body>
</html>
~
```

Some remarks in regards to the prior example

- As you can see the JavaScript code is embedded within the HTML. Normally, this is not a good style.
- The good style is to invoke the JavaScript from a JavaScript file.
- You can put the JavaScript in the body and head sections of an HTML page.
- The Perforce commands can be executed by invoking "P4JsApi.p4()" method. In the example (Line 8), you see that that "changes" object holds the output of "p4 changes –l –m5".

Continued

- (Line 10) The “document.getElementById(‘change’) will extract the table tag content from the existing HTML page and this is stored in the “table” object.
- Within this object, there are 5 submitted changes output and each change can be extracted using “change.data[<index>]” method (Line 12).
- Since we like to output this as an HTML, for each change, we create a table row and this is done by “document.createElement(“tr”)” method (Line 13).

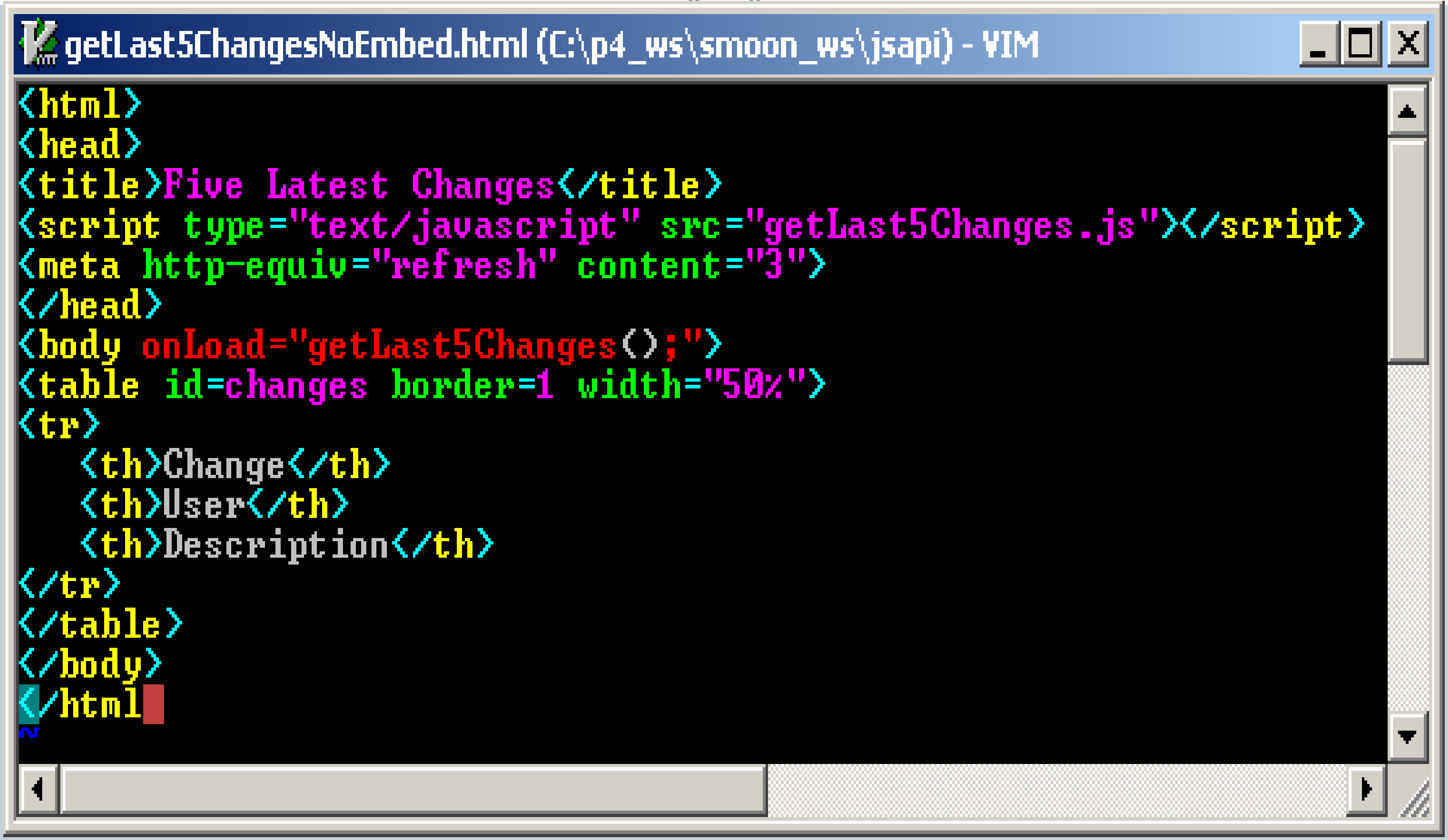
Continued

- For each “row” object, you use “innerHTML” method to store the HTML table row content (Line 14)
- And this is appended to the existing table header in the HTML (Line 24).
- Also notice “meta” tag:

  <meta http-equiv=“refresh” content=“3”>

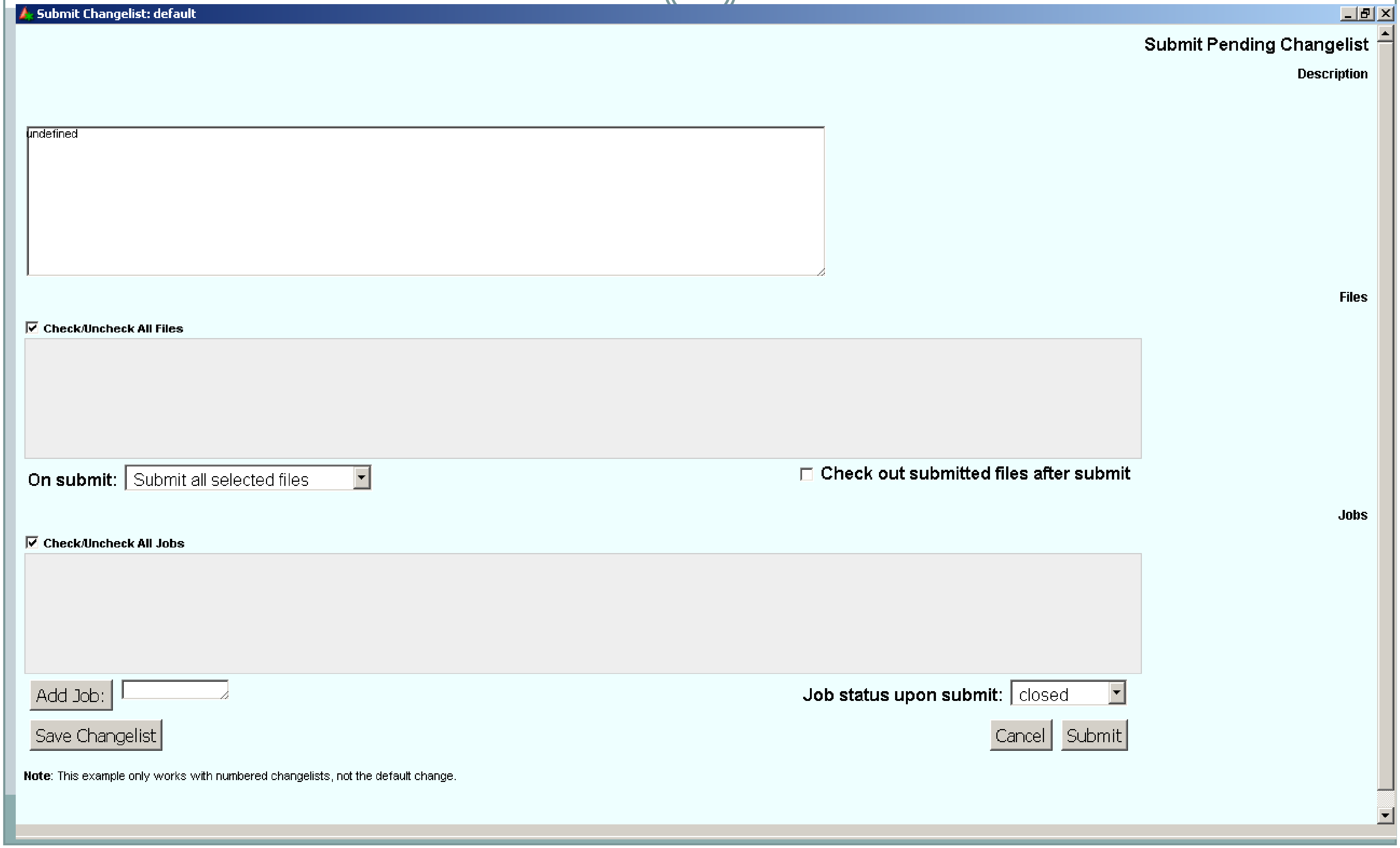
  The above tag makes the HTML page to refresh every 3 seconds.
- See the following slide which shows the example without the JavaScript embedded to the HTML.

Without JavaScript Embedded



```html
<html>
<head>
<title>Five Latest Changes</title>
<script type="text/javascript" src="getLast5Changes.js"></script>
<meta http-equiv="refresh" content="3">
</head>
<body onLoad="getLast5Changes();">
<table id=changes border=1 width="50%">
<tr>
   <th>Change</th>
   <th>User</th>
   <th>Description</th>
</tr>
</table>
</body>
</html
~
```

Example: Customized SubmitDiaglog



undefined

☑ Check/Uncheck All Files

On submit: Submit all selected files

□ Check out submitted files after submit

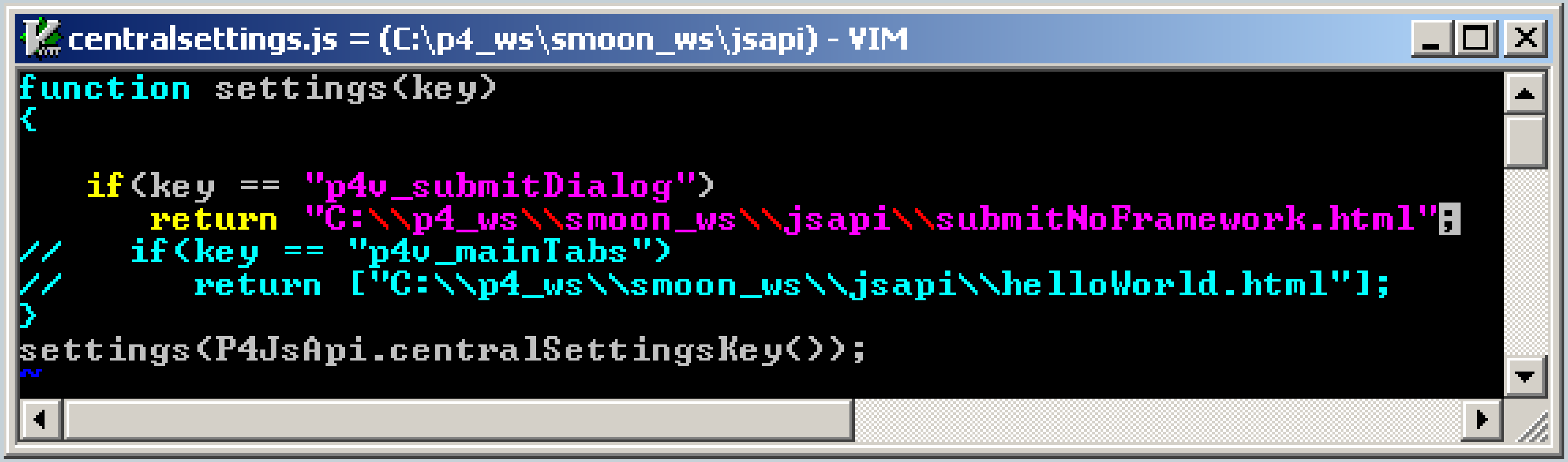
☑ Check/Uncheck All Jobs

Job status upon submit: closed

Note: This example only works with numbered changelists, not the default change.

One caveat in regards to using “p4v_submitDialog” key

- You are not passing back an array, but you are passing back a string:



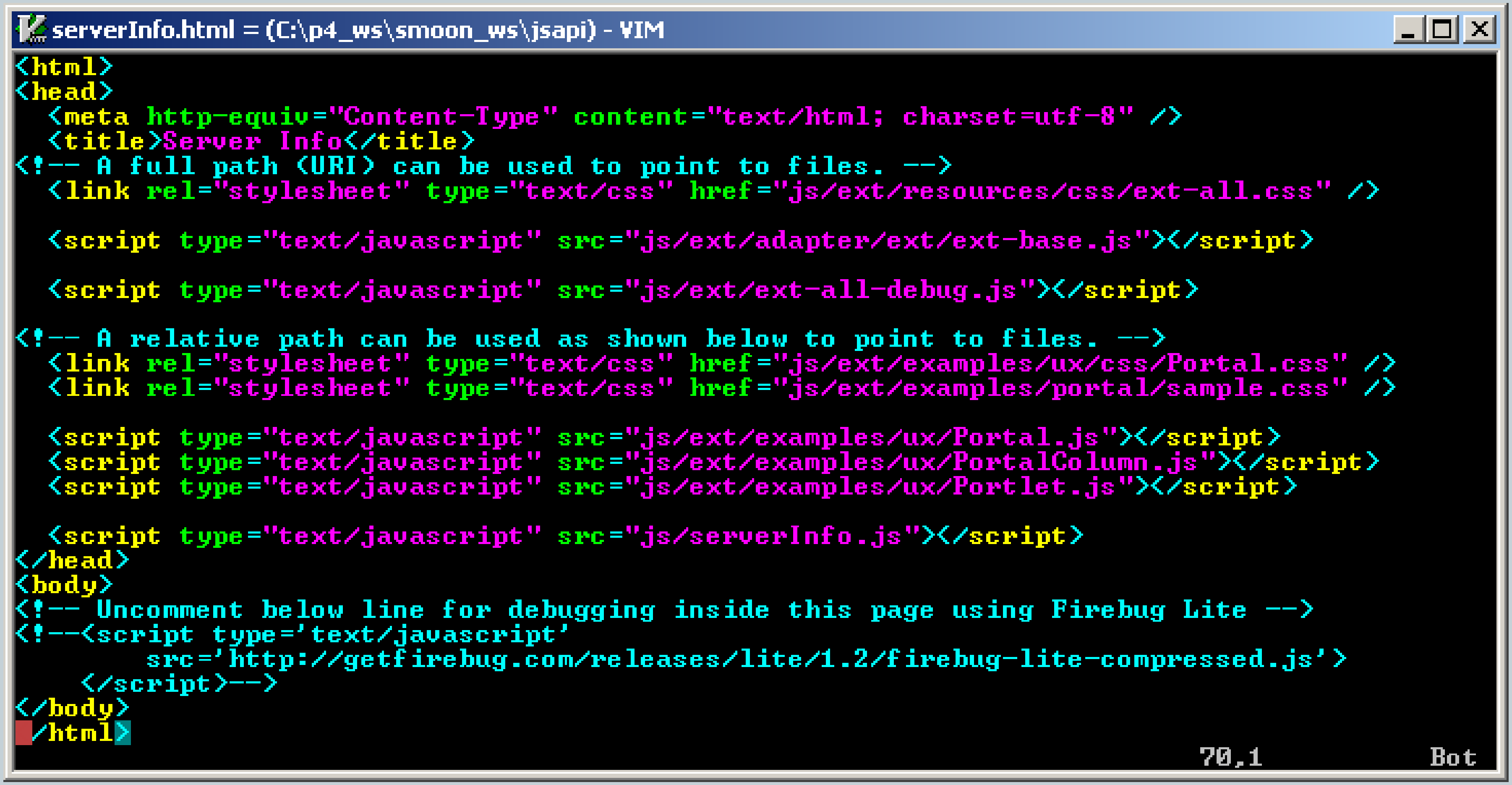
```
function settings(key)
{

   if(key == "p4v_submitDialog")
      return "C:\\p4_ws\\smoon_ws\\jsapi\\submitNoFramework.html";
//   if(key == "p4v_mainTabs")
//      return ["C:\\p4_ws\\smoon_ws\\jsapi\\helloWorld.html"];
}
settings(P4JsApi.centralSettingsKey());
~
```

Utilizing Ext library

- You can use an external library to enhance the look of your HTML page. This is done by downloading Ext library from

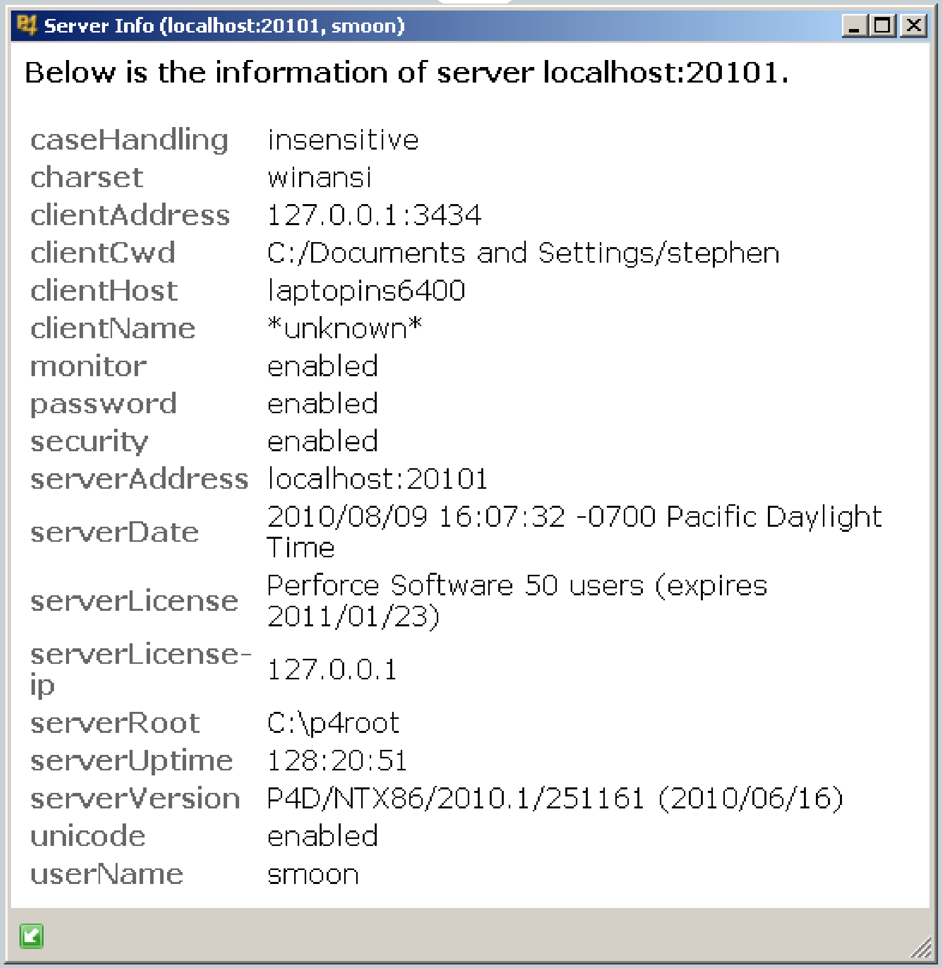
  http://www.extjs.com/products/js/download.php

Example: JavaScript using Ext Library



```
<html>
<head>
  <meta http-equiv="Content-Type" content="text/html; charset=utf-8" />
  <title>Server Info</title>
<!-- A full path (URI) can be used to point to files. -->
  <link rel="stylesheet" type="text/css" href="js/ext/resources/css/ext-all.css" />

  <script type="text/javascript" src="js/ext/adapter/ext/ext-base.js"></script>

  <script type="text/javascript" src="js/ext/ext-all-debug.js"></script>

<!-- A relative path can be used as shown below to point to files. -->
  <link rel="stylesheet" type="text/css" href="js/ext/examples/ux/css/Portal.css" />
  <link rel="stylesheet" type="text/css" href="js/ext/examples/portal/sample.css" />

  <script type="text/javascript" src="js/ext/examples/ux/Portal.js"></script>
  <script type="text/javascript" src="js/ext/examples/ux/PortalColumn.js"></script>
  <script type="text/javascript" src="js/ext/examples/ux/Portlet.js"></script>

  <script type="text/javascript" src="js/serverInfo.js"></script>
</head>
<body>
<!-- Uncomment below line for debugging inside this page using Firebug Lite -->
<!--<script type='text/javascript'
        src='http://getfirebug.com/releases/lite/1.2/firebug-lite-compressed.js'>
    </script>-->
</body>
</html>
                                                                  70,1          Bot
```

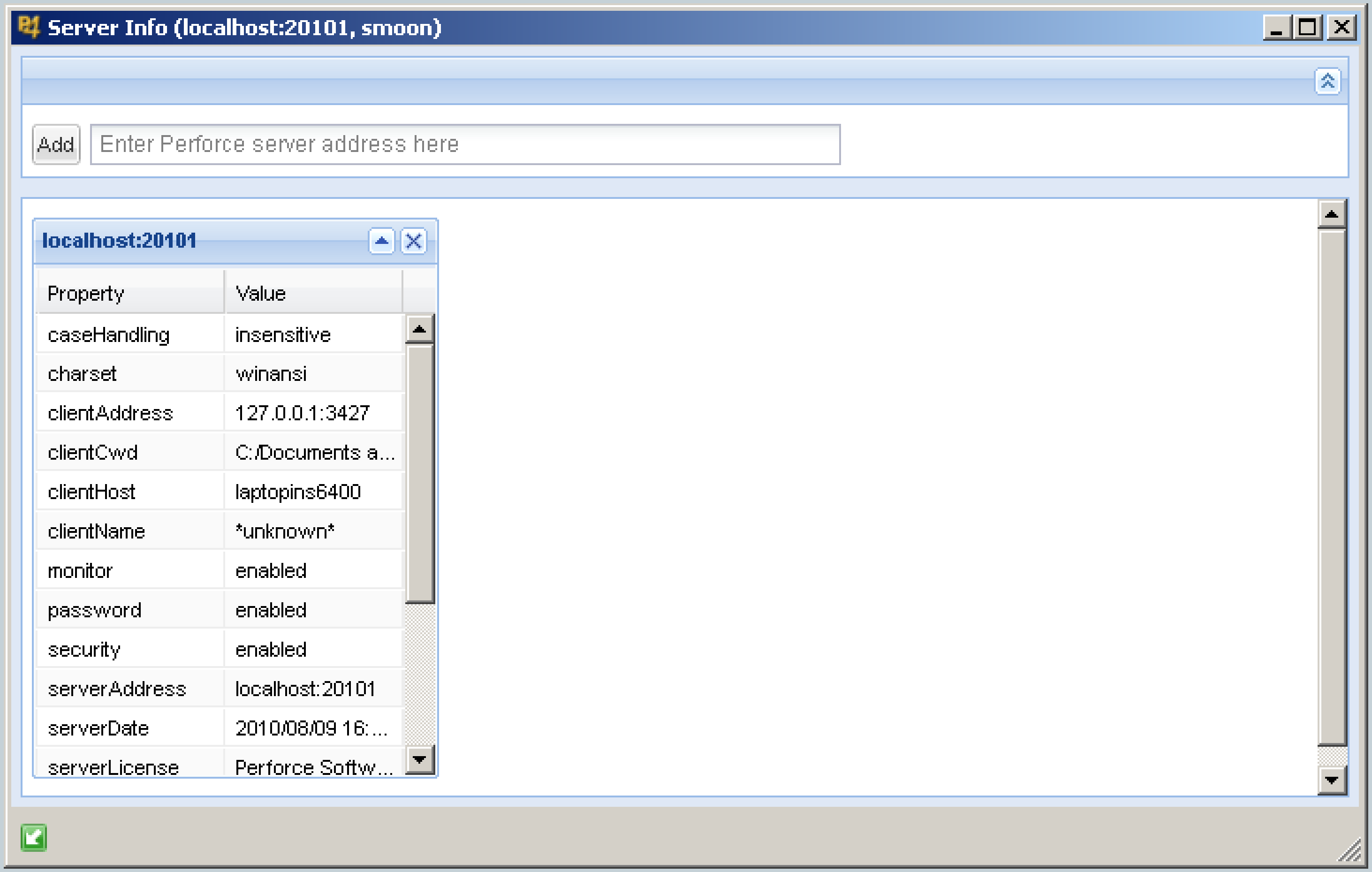
How the example looks without Ext library



Below is the information of server localhost:20101.

caseHandling	insensitive
charset	winansi
clientAddress	127.0.0.1:3434
clientCwd	C:/Documents and Settings/stephen
clientHost	laptopins6400
clientName	*unknown*
monitor	enabled
password	enabled
security	enabled
serverAddress	localhost:20101
serverDate	2010/08/09 16:07:32 -0700 Pacific Daylight Time
serverLicense	Perforce Software 50 users (expires 2011/01/23)
serverLicense-ip	127.0.0.1
serverRoot	C:\p4root
serverUptime	128:20:51
serverVersion	P4D/NTX86/2010.1/251161 (2010/06/16)
unicode	enabled
userName	smoon

The example with Ext library


Server Info (localhost:20101, smoon)
Add
Enter Perforce server address here
localhost:20101

Property	Value
caseHandling	insensitive
charset	winansi
clientAddress	127.0.0.1:3427
clientCwd	C:/Documents a...
clientHost	laptopins6400
clientName	*unknown*
monitor	enabled
password	enabled
security	enabled
serverAddress	localhost:20101
serverDate	2010/08/09 16:...
serverLicense	Perforce Softw...