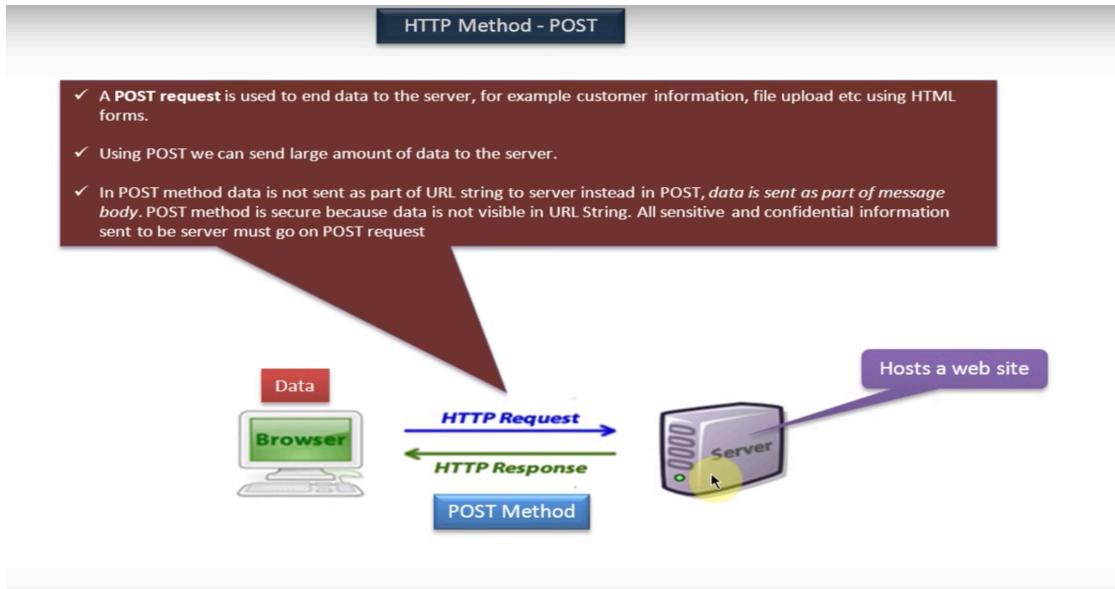


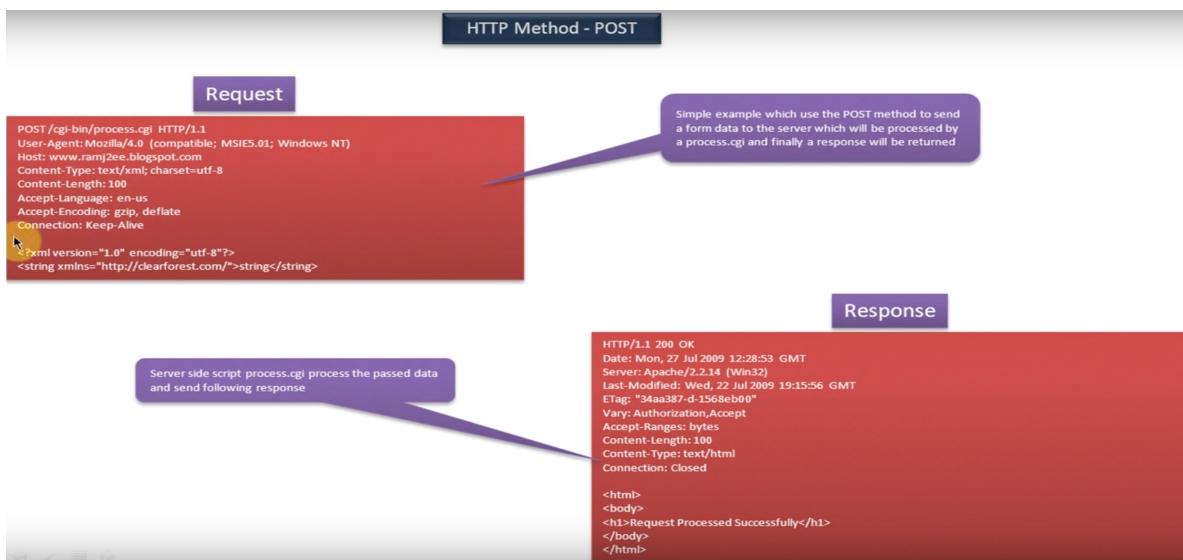
HTTP Method

- These are case sensitive.
- ❖ **POST:** using this method we can send data from client machine to the server machine. for ex: customer information, file upload etc using HTML forms.

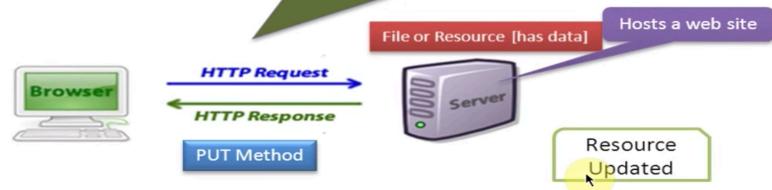
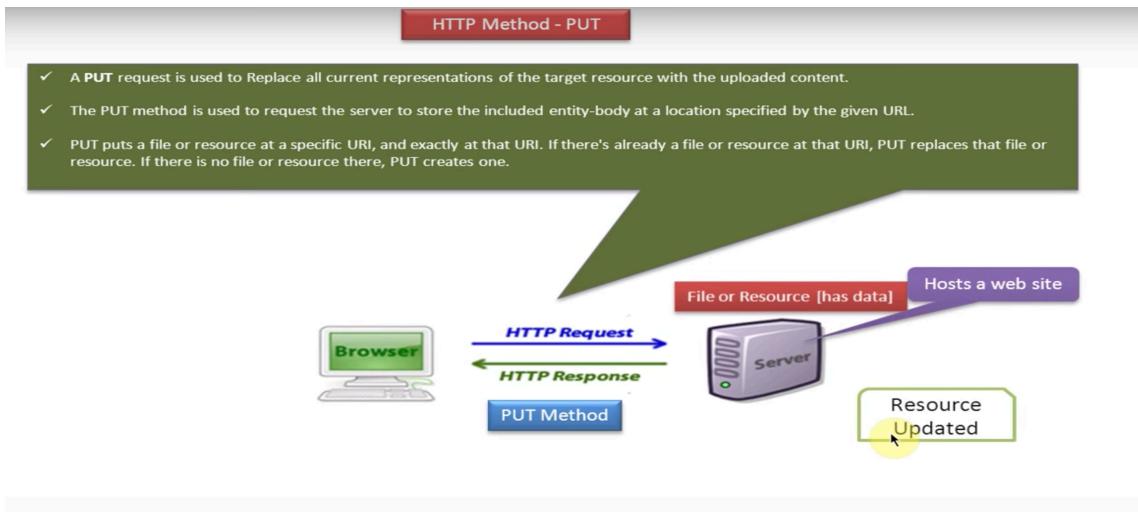
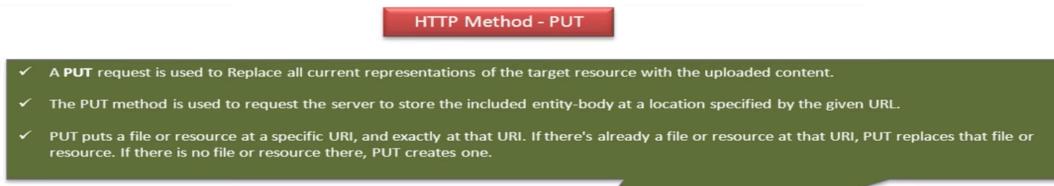
```
curl -u "<dashboard user name>:<password>" -s -X POST -H 'Content-Type: application/json' -d '{"apikey" : "<API key>", "servicename":"bits", "matchtype":"pattern"}" https://www.myshn.net/shnapi/rest/clientapi/csp/search
```



POST method Request/Response:



- ❖ **PUT:** We use this method to update the resource present on the server side or to create a new source at the server side. This is used to replace all current representations of the target resources with the uploaded content.



PUT method Request/Response:

HTTP Method - PUT

Request

```
PUT /hello.htm HTTP/1.1
User-Agent: Mozilla/4.0 (compatible; MSIE5.01; Windows NT)
Host: www.ramjee.blogspot.com
Accept-Language: en-us
Connection: Keep-Alive
Content-type: text/html
Content-Length: 182

<html>
<body>
<h1>Hello, World!</h1>
</body>
</html>
```

Response

```
HTTP/1.1 201 Created
Date: Mon, 27 Jul 2009 12:28:53 GMT
Server: Apache/2.2.14 (Win32)
Content-type: text/html
Content-length: 30
Connection: Closed

<html>
<body>
<h1>The file was created.</h1>
</body>
</html>
```

- ❖ **GET:** Suppose from the server I want to get some information from the given server using a given URI and display into the client browser. requested using GET should only retrieve data and should have no other effect on the data.

(For pulling the information)

```
curl -u "himanshudogra1993@gmail.com:SUP@ss321" -s -X GET -H 'Content-Type: application/json'  
https://www.myshn.net/shnapi/rest/csp/feed/anomaly
```

```
"data": [  
  {  
    "serviceName": "TubeMogul",  
    "serviceId": 3135,  
    "timestamp": "2015-04-12T07:00:21.000+0000",  
    "anomalyCategoryId": 0,  
    "anomalyCategory": null,  
    "userGroup": -1,  
    "riscValue": 4,  
    "activityType": -1,  
    "destinationHost": "rtb-liverail.tubemogul.com",  
    "userId": 1801643841,  
    "activityName": "Accessed",  
    "userDisplayName": "hmpa",  
    "information": {  
      "timeUpdatedMillis": 1428987399000,  
      "SimilarCount": 205,  
      "anomaly.timeupdated": "2015-04-14 04:56:39.0",  
      "IncidentGroupId": 10034,  
      "timeCreatedMillis": 1428987399000,  
      "anomaly.timecreated": "2015-04-14 04:56:39.0",  
      "Measure": "CountPerDay",  
      "Direction": "accessed",  
      "Threshold": "87",  
      "IncidentGroup": "Alert.Data.ServiceAccessCount"  
    }  
  }]
```

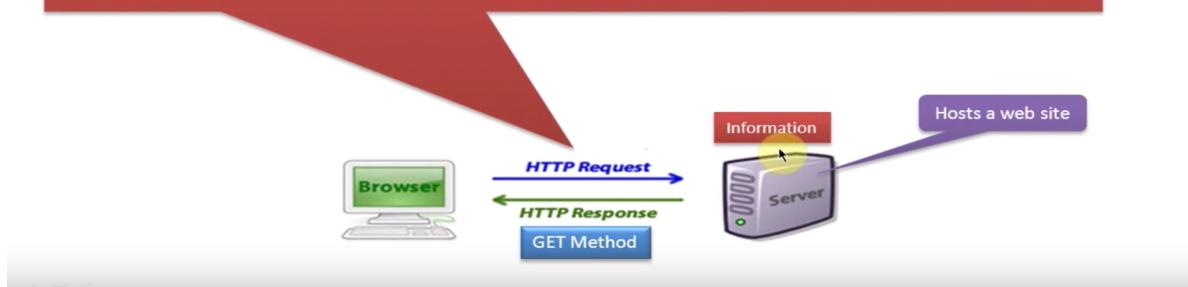
(transferring some data)

```
curl -u "himanshudogra1993@gmail.com:SUP@ss321" -s -X GET -H 'Content-Type: application/json'  
https://www.myshn.net/shnapi/rest/csp/feed/anomaly?ts=1459688564000&id=776467927
```

```
{"data":[],"last_update_time":0,"last_id":0}
```

HTTP Method - GET

- ✓ The **GET** method is used to retrieve information from the given server using a given URI. Requests using GET should only retrieve data and should have no other effect on the data.
- ✓ This is the main method used for retrieving html, images, JavaScript, CSS, etc. Most data that loads in your browser was requested using this method.
- ✓ GET requests can be cached, GET requests remain in the browser history, GET requests have length restriction [maximum URL length is 2048 characters] so we can only pass limited amount of data to the server, GET requests should never be used when dealing with sensitive data. GET is mostly used for view purpose (e.g. SQL SELECT)
- ✓ **GET method** is not secure and hence not a suitable choice for transferring confidential data because whatever information you pass in URL String is visible to everybody [e.g. :/test/demo_form.jsp?name1=value1&name2=value2]



GET method Request/Response:

HTTP Method - GET

Request

```
GET /hello.htm HTTP/1.1
User-Agent: Mozilla/4.0 (compatible; MSIE5.01; Windows NT)
Host: www.ramj2ee.blogspot.com
Accept-Language: en-us
Accept-Encoding: gzip, deflate
Connection: Keep-Alive
```

Simple example which makes use of GET method to fetch hello.htm

Response

```
HTTP/1.1 200 OK
Date: Mon, 27 Jul 2009 12:28:53 GMT
Server: Apache/2.2.14 (Win32)
Last-Modified: Wed, 22 Jul 2009 19:15:56 GMT
ETag: "34aa387-d-1568eb00"
Vary: Authorization,Accept
Accept-Ranges: bytes
Content-Length: 88
Content-Type: text/html
Connection: Closed

<html>
<body>
<h1>Hello, World!</h1>
</body>
</html>
```

- ❖ **DELETE:** This request is used to remove all current representation of the target resource given by URI.

HTTP Method - DELETE

- ✓ A **DELETE** request is used to Remove all current representations of the target resource given by URI.
- ✓ The **DELETE** method is used to request the server to delete file/resource at a location specified by the given URL

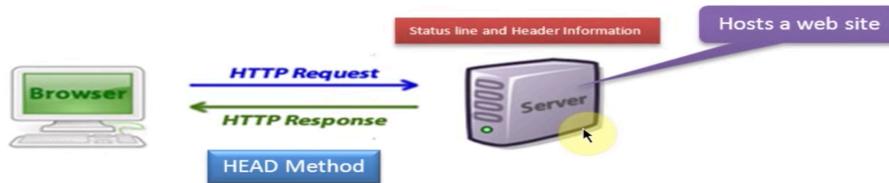


DELETE method Request/Response:

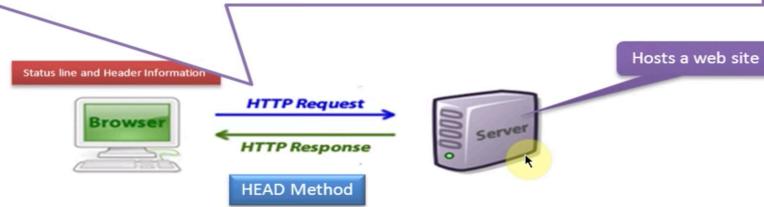


- ❖ **HEAD:** This is same as GET, but only transfer the status line and header section.

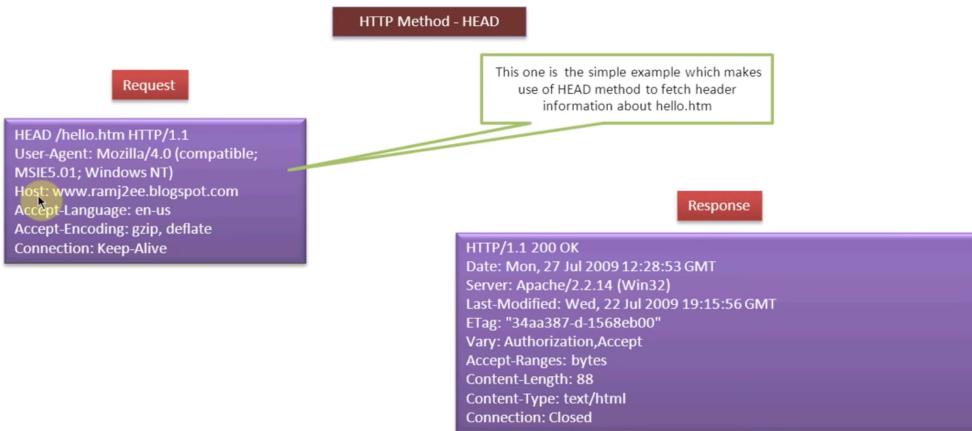
```
Himanshus-MacBook-Pro-2:~ himanshu$ curl -v --request "*" -X HEAD http://www.google.com
Warning: Setting custom HTTP method to HEAD with -X/--request may not work the
Warning: way you want. Consider using -I/--head instead.
* Rebuilt URL to: http://www.google.com/
* Trying 74.125.68.104...
* TCP_NODELAY set
* Connected to www.google.com (74.125.68.104) port 80 (#0)
> HEAD / HTTP/1.1
> Host: www.google.com
> User-Agent: curl/7.51.0
> Accept: */*
>
< HTTP/1.1 302 Found
< Cache-Control: private
< Content-Type: text/html; charset=UTF-8
< Referrer-Policy: no-referrer
< Location: http://www.google.co.in/?gfe_rd=cr&ei=ckekWfiTCYPEoAPrz5WQHQ
< Content-Length: 261
< Date: Mon, 28 Aug 2017 16:40:18 GMT
```



- HTTP Method - HEAD
- ✓ HEAD method is same as GET, but only transfer the status line and header section.
 - ✓ The HEAD method is used to ask only for information about a document, not for the document itself. HEAD is much faster than GET, as a much smaller amount of data is transferred. It's often used by clients who use caching, to see if the document has changed since it was last accessed. If it was not, then the local copy can be reused, otherwise the updated version must be retrieved with a GET.
 - ✓ This method can be used for obtaining meta information about the resource identified by the request URI without transferring the data itself. This method is often used for testing hypertext links for validity, accessibility, and recent modification.

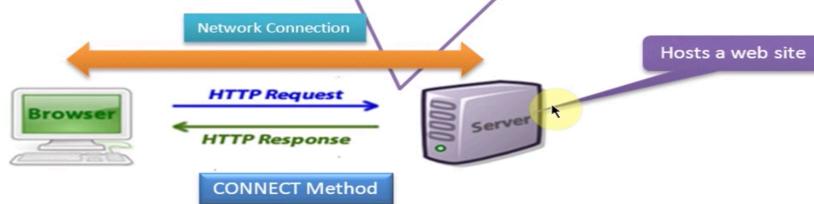


HEAD method Request/Response:

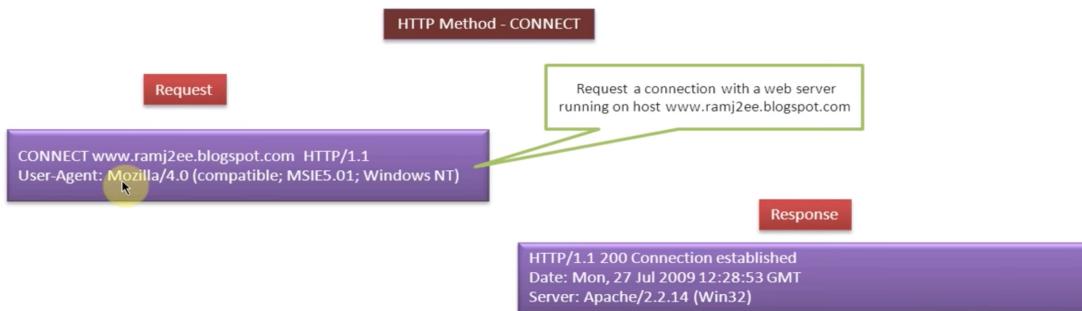


- ❖ **CONNECT:** This is used by the client to establish a network connection to a web server over HTTP.

- ✓ The CONNECT method is used by the client to establish a network connection to a web server over HTTP.
- ✓ The HTTP CONNECT method creates an end-to-end tunnel between two machines through a proxy/firewall machine.



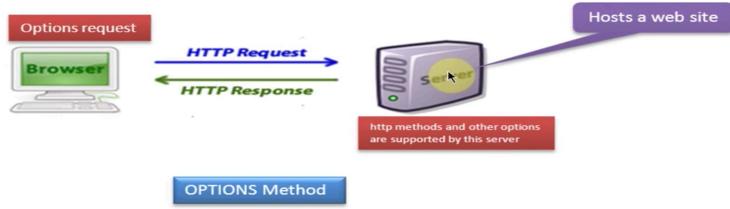
CONNECT method Request/Response:



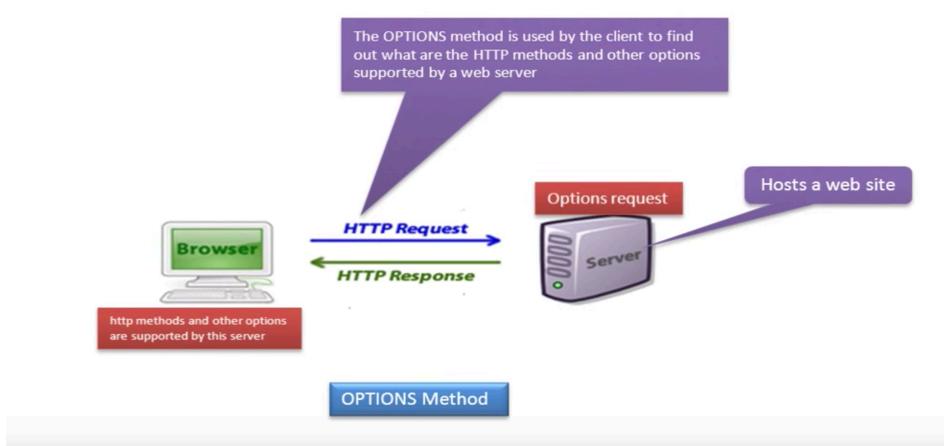
- ❖ **OPTIONS:** This method is used by the client to find out what are the HTTP methods and other options supported by a web server.

```
Himanshus-MacBook-Pro-2:~ himanshu$ curl -v --request "*" -X OPTIONS http://www.google.com
* Rebuilt URL to: http://www.google.com/
* Trying 74.125.68.104...
* TCP_NODELAY set
* Connected to www.google.com (74.125.68.104) port 80 (#0)
> OPTIONS / HTTP/1.1
> Host: www.google.com
> User-Agent: curl/7.51.0
> Accept: */*
>
< HTTP/1.1 405 Method Not Allowed
< Allow: GET, HEAD
< Date: Mon, 28 Aug 2017 16:39:04 GMT
< Content-Type: text/html; charset=UTF-8
```

HTTP Method - OPTIONS



HTTP Method - OPTIONS



OPTIONS method Request/Response:

HTTP Method - OPTIONS

Request

```
OPTIONS * HTTP/1.1  
User-Agent: Mozilla/4.0 (compatible; MSIE5.01; Windows NT)
```

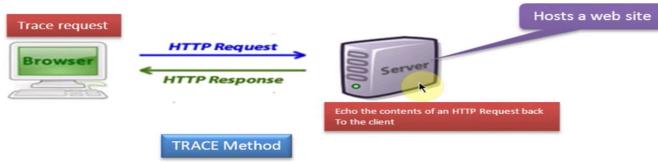
The client can specify a URL for the OPTIONS method, or an asterisk (*) to refer to the entire server. This example request a list of methods supported by a web server running on ramj2ee.blogspot.com

Response

```
HTTP/1.1 200 OK  
Date: Mon, 27 Jul 2009 12:28:53 GMT  
Server: Apache/2.2.14 (Win32)  
Allow: GET,HEAD,POST,OPTIONS,TRACE  
Content-Type: httpd/unix-directory
```

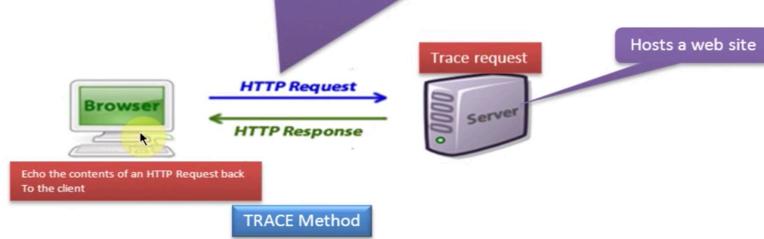
- ❖ **TRACE:** This method is used to echo the contents of an HTTP request back to the requester which can be used for debugging purpose at the time of the development.

HTTP Method - TRACE



HTTP Method - TRACE

- ✓ The TRACE method is used to echo the contents of an HTTP Request back to the requester which can be used for debugging purpose at the time of development.
- ✓ The TRACE method is primarily used for debugging and testing purposes, and simply requests that the server echo back the request it received. This can be useful for identifying any changes to the request that is made by proxies.



TRACE method Request/Response:

HTTP Method - TRACE

Request

TRACE / HTTP/1.1
Host: www.tutorialspoint.com
User-Agent: Mozilla/4.0 (compatible; MSIE5.01; Windows NT)

Response

HTTP/1.1 200 OK
Date: Mon, 27 Jul 2009 12:28:53 GMT
Server: Apache/2.2.14 (Win32)
Connection: close
Content-Type: message/http
Content-Length: 39

TRACE / HTTP/1.1
Host: www.tutorialspoint.com
User-Agent: Mozilla/4.0 (compatible; MSIE5.01; Windows NT)