



Coding Examples for Browserless HTTP GET call with Basic Authentication

The following are example code snippets for use with the MSRS browserless HTTP GET call using Basic Authentication to download MSRS reports.

[curl – Command Line Interface \(CLI\) - Replacement for fileTransfer.jar](#)

The most straightforward replacement of [filetransfer.jar](#) is **curl**. It is standard as part of both linux and Windows 10. It can also be downloaded at: <https://curl.haxx.se/download.html>.

It is used by putting the username and password in a protected file (preferred) or by placing credentials on the command line. Both examples are below:

- Using a protected password file:

1. Create a secured text file called **my-password-file** (can be named anything).

This will store your account information so it does not appear on the command line. One file can be used for both sandbox and production.

2. Put your login information in the file. Example:

```
machine msrstrain.pjm.com login YOUR_SANDBOX_LOGIN password YOUR_SANDBOX_PASSWORD
machine msrs.pjm.com login YOUR_PROD_LOGIN password YOUR_PROD_PASSWORD
```

3. Run curl using these credentials and default Accept: */* header. Example:

```
curl --netrc-file my-password-file --compressed
'https://msrstrain.pjm.com/msrs/browserless.do?report=TransmissionEnhancementChargeSummary&version=L&format=C&start=08/01/2018&stop=08/25/2018'
```

```
curl --netrc-file my-password-file --compressed
'https://msrs.pjm.com/msrs/browserless.do?report=TransmissionEnhancementChargeSummary&version=L&format=C&start=08/01/2018&stop=08/25/2018'
```

- Using only the command line, most similar to filetransfer.jar

```
curl -u YOUR_SANDBOX_LOGIN:YOUR_SANDBOX_PASSWORD --compressed
'https://msrstrain.pjm.com/msrs/browserless.do?report=TransmissionEnhancementChargeSummary&version=L&format=C&start=08/01/2018&stop=08/25/2018'
```

```
curl -u YOUR_PROD_LOGIN:YOUR_PROD_PASSWORD --compressed
'https://msrs.pjm.com/msrs/browserless.do?report=TransmissionEnhancementChargeSummary&version=L&format=C&start=08/01/2018&stop=08/25/2018'
```



Coding Examples for Browserless HTTP GET call with Basic Authentication

Python 3 (requests library is required -- download from <http://docs.python-requests.org/en/master/>)

```
import requests
MSRS_URL =
'https://msrstrain.pjm.com/msrs/browserless.do?report=TransmissionEnhancementChargeSummary&version=L&format=C&start=08/01/2018
&stop=08/25/2018'
HTTP_GET_MSRS_REPORT = requests.get(MSRS_URL, auth=('username', 'password'))
print(HTTP_GET_MSRS_REPORT.text)
```



Coding Examples for Browserless HTTP GET call with Basic Authentication

Java (Java version 7+ is required)

```
import java.io.BufferedReader;
import java.io.IOException;
import java.io.InputStreamReader;
import java.net.URL;
import java.util.zip.GZIPInputStream;
import javax.net.ssl.HttpURLConnection;

public class MSRS_Browserless_Request {
    public static void main(String args[]) throws IOException {
        URL MSRS_URL = new
URL("https://msrs.pjm.com/msrs/browserless.do?report=TransmissionEnhancementChargeSummary&version=L&format=C&start=08/01/2018&stop=08/25/2018");

        String authString = "username:password";
        String basicAuth = "Basic " + javax.xml.bind.DatatypeConverter.printBase64Binary(authString.getBytes());

        HttpURLConnection urlConnection = (HttpURLConnection)MSRS_URL.openConnection();
        urlConnection.setRequestProperty("Accept-Encoding", "gzip");
        urlConnection.setRequestProperty("Authorization", basicAuth);

        BufferedReader br = null;
        if ("gzip".equals(urlConnection.getContentEncoding())) {
            br = new BufferedReader(new InputStreamReader(new GZIPInputStream(urlConnection.getInputStream())));
        }
        else {
            br = new BufferedReader(new InputStreamReader((urlConnection.getInputStream())));
        }

        String reportResult = null;
        while ((reportResult = br.readLine()) != null) {
            System.out.println(reportResult);
        }
    }
}
```



Coding Examples for Browserless HTTP GET call with Basic Authentication

C# (.NET Framework version 4.5+ is required for the HttpClient package)

```
using System;
using System.Text;
using System.Net.Http;
using System.Threading.Tasks;
using System.Net;

namespace MSRS_Browserless_Request
{
    class Program
    {
        static void Main()
        {
            HTTP_GET_MSRS_REPORT().GetAwaiter().GetResult();
        }
        static async Task HTTP_GET_MSRS_REPORT()
        {
            var MSRS_URL =
                "https://msrs.pjm.com/msrs/browserless.do?report=TransmissionEnhancementChargeSummary&version=L&format=C&start=08/01/2018&stop=08/25/2018"
                ;
            var byteArray = Encoding.ASCII.GetBytes("username:password");
            HttpClientHandler handler = new HttpClientHandler() { AutomaticDecompression = DecompressionMethods.GZip };
            HttpClient client = new HttpClient(handler);
            client.DefaultRequestHeaders.AcceptEncoding.Add(new System.Net.Http.Headers.StringWithQualityHeaderValue("gzip"));
            client.DefaultRequestHeaders.UserAgent.ParseAdd("Mozilla/4.0 (compatible; MSIE 7.0; Windows NT 6.1; WOW64; Trident/7.0; SLCC2;
                .NET CLR 2.0.50727; .NET CLR 3.5.30729; .NET CLR 3.0.30729;)");
            client.DefaultRequestHeaders.Authorization = new System.Net.Http.Headers.AuthenticationHeaderValue("Basic",
                Convert.ToBase64String(byteArray));
            HttpResponseMessage response = await client.GetAsync(MSRS_URL);

            if (response.IsSuccessStatusCode)
            {
                string reportResult = await response.Content.ReadAsStringAsync();
                Console.WriteLine(reportResult);
            }
            Console.ReadLine();
        }
    }
}
```



Coding Examples for Browserless HTTP GET call with Basic Authentication

VBA

For sending requests using Basic Authentication:

```
Dim Request As Object
Dim url As String
Dim Filename As String

Set Request = CreateObject("WinHttp.WinHttpRequest.5.1")

url =
"https://msrs.pjm.com/msrs/browserless.do?report=TransmissionEnhancementChargeSummary&version=L&format=C&start=08/01/2018&stop=08/25/2018"

Request.Open "GET", url, False
Request.setRequestHeader "Authorization", "Basic " & BaseEncode64("username" & ":" & "password")
Request.Send
```

Response can be retrieved using preferred method from request object:

```
Dim ResponseArray as Variant

ResponseArray = Request.ResponseBody

Dim ResponseText as String

ResponseText = Request.ResponseText
```