

リスト1 nanoFramework HTTPアクセスのサンプル

省略

```
using nanoFramework.Runtime.Events;
using nanoFramework.Networking;
using System;
using System.Diagnostics;
using System.Net;
using System.Net.NetworkInformation;
using System.Net.Sockets;
using System.Text;
using System.Threading;

namespace SecureClient
{
    public class Program
    {
        public static void Main()
        {
            Debug.WriteLine("Waiting for network up and IP
                               address...");

            bool success;
            CancellationAccessTokenSource cs = new(60000);
            success = NetworkHelper.SetupAndConnectNetwork(
                cs.Token, true);

            if (!success)
            {
                Debug.WriteLine($" {DateTime.UtcNow} Can't get
                    a proper IP address and DateTime, error:
                    {NetworkHelper.Status}");
                if (NetworkHelper.HelperException != null)
                {
                    Debug.WriteLine($"ex: {NetworkHelper.Helper
                        Exception}");
                }
                return;
            }
            else
            {
                Debug.WriteLine($" {DateTime.UtcNow} Network
                    connected");
            }
            IPHostEntry hostEntry = Dns.GetHostEntry(
                "micropython.org");
            IPEndPoint ep = new IPEndPoint(hostEntry.
                AddressList[0], 80);
            Debug.WriteLine($" {DateTime.UtcNow} Opening
                socket... {hostEntry.AddressList[0]} ");
            using (Socket mySocket = new Socket(
```

```

AddressFamily. InterNetwork, SocketType. Stream,
                                     ProtocolType. Tcp))
{
    try
    {
        Debug.WriteLine("Connecting...");
        // connect socket
        mySocket.Connect(ep);
        byte[] buffer = Encoding.UTF8.GetBytes(
            "GET / HTTP/1.0\r\n\r\n");
        mySocket.Send(buffer);
        Debug.WriteLine($"Wrote {buffer.Length}
            bytes");

        buffer = new byte[8192];
        int bytes = mySocket.Receive(buffer);
        Debug.WriteLine($"Read {bytes} bytes");
        if (bytes > 0)
        {
            Debug.WriteLine(new String(Encoding.UTF8.
                GetChars(buffer)));
        }
    }
    catch (SocketException ex)
    {
        Debug.WriteLine($"** Socket exception
            occurred: {ex.Message} error code {ex.
                ErrorCode}!**");
    }
    catch (Exception ex)
    {
        Debug.WriteLine($"** Exception occurred:
            {ex.Message}!**");
    }
    finally
    {
        Debug.WriteLine("Closing socket");
        mySocket.Close();
    }
}
Thread.Sleep(Timeout.Infinite);
}
}
}

```

リスト2 リスト1の実行結果

省略

```
Waiting for network up and IP address...
Checking for IP in interface 6
We have an IP: 192.168.11.16
Waiting for valid DateTime system clock...
We have a valid date 05/04/2022 19:56:16
05/04/2022 19:56:16 Network connected
05/04/2022 19:56:16 Opening socket... 176.58.119.26
Connecting...
Wrote 18 bytes
Read 353 bytes
HTTP/1.1 200 OK
Server: nginx/1.10.3
Date: Wed, 04 May 2022 19:56:17 GMT
Content-Type: text/html
Content-Length: 54
Last-Modified: Sat, 04 Oct 2014 21:54:13 GMT
Connection: close
Vary: Accept-Encoding
ETag: "54306c85-36"
Strict-Transport-Security: max-age=15768000
Accept-Ranges: bytes
```

Server down for maintenance.

Please check back soon.

Closing socket

リスト3 Program.cs中の変更箇所

省略

```
// setup user button
_userButton = new GpioController().OpenPin(15,
                                             PinMode.Input);
```

省略

```
////////////////////////////////////
/// enter your Shared Access Signature.
```

省略

```
string sas = "SharedAccessSignature sr=raspipico.
azure-devices.net%2Fdevices%2Fevb-pico&sig=xxxxx
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx&se=xxx
xxxxxx";
////////////////////////////////////
```

