Quick start guide

iX Detect Internet Connection

SER0054 – iX example project

Beijer ELECTRONICS

1 Function and area of use

This document shows how to check the availability of an internet connection.
The time for the cyclic check is adjustable inside the script module.

2 About this document

This quick start document should not be considered as a complete manual. It is an aid to be able to startup a normal application quickly and easily.

Use the following items in order to obtain a stable application:

In this document we have used following software and hardware

- iX Developer 2.40 SP5 / SP6
- X2 base/pro/marine/control/extreme, C2 series devices and iX PC RT (iX runtime)

For further information refer to

- iX Developer Reference Manual (MAxx831)
- iX Developer User's Guide (MAxx832)
- Beijer Electronics knowledge database, HelpOnline

This document and other Startup documents can be obtained from our homepage.
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3 Table of Contents

4 The iX example project

The cyclic check if Internet is connected is done inside the script module SCM_DetectInternetConnection.

4.1 The Script Module

Inside the script module the following Namespace is inserted additionally to enable sockets.

```
using System.Net;
```

Every iX script module brings a "Created" method with it, which is perfect to initialize stuff as it is worked on exactly once at the start of the iX project.

```
// The method is invoked when the script module object is created.
void SCM_DetectInternetConnection_Created(System.Object sender, System.EventArgs e)
{
        m_Timer= new Timer();
        m_Timer.Enabled = true;
        m_Timer.Interval = 5000;                //ms - adjust time for cyclic check here.
        m_Timer.Tick += OnTimerTick;
}


// Cycle
private void OnTimerTick(System.Object Sender, EventArgs e)
{
        if(TcpSocketTest())                                     // Check if internet is connected
                Globals.Tags.Internet_Connected.SetTag();       // Set tag if connected
        else
                Globals.Tags.Internet_Connected.ResetTag();     // Set tag if connected
}


// Tries to connect to a TCP port using a DNS lookup
// <returns>true if the connection could be established, false otherwise</returns>
private bool TcpSocketTest(){
        try{
                System.Net.Sockets.TcpClient client =
                        new System.Net.Sockets.TcpClient("www.google.com", 80);  // address and port
                client.Close();
                return true;
        }
        catch (Exception){
                return false;
        }
}
```

5 Adding the Internet Detection

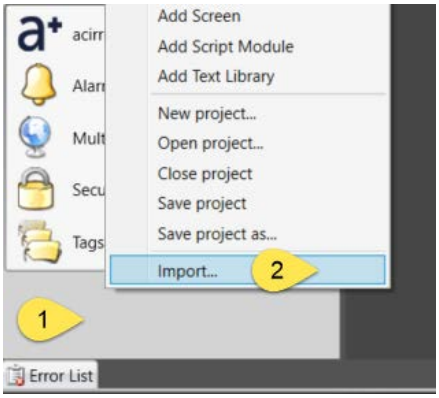
Implementation

1. Import the script module "SCM_DetectInternetConnection" , see example project (iX_Detect_Internet_Connection).
2. Create the Tag "Internet_Connected" with Datatyp BOOL

Tag			Controller	
Name	Datentyp	Zugriffsrecht	Datentyp	Controller1
Internet_Connected	BOOL	ReadWrite	DEFAULT	

3. Optionally import Screen1 of the example project (iX_Detect_Internet_Connection).
4. Adapt the screen to your needs.
5. Transfer the application.
6. Run the application.

5.1 Import the project parts



Follow the steps to add the enclosed screen and the script module to your iX project:

1. Unpack the enclosed example ZIP-file to a temporary folder.
2. Start iX Developer and load your project.
3. In the Project Explorer, right-click in the lower left corner (1. in the picture)
4. In the list, select Import... (2. in the picture)
5. Navigate to the temporary folder, where you unpacked the ZIP-file and select SCM_DetectInternetConnection.neo, click [Open].
6. Select Screen1.neoxaml, click [Open].
7. Done!

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