

Quick start guide

iX Detect Internet Connection

SER0054 - iX example project



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.

Copyright © Beijer Electronics, 2021

This documentation (below referred to as 'the material') is the property of Beijer Electronics. The holder or user has a non-exclusive right to use the material. The holder is not allowed to distribute the material to anyone outside his/her organization except in cases where the material is part of a system that is supplied by the holder to his/her customer. The material may only be used with products or software supplied by Beijer Electronics. Beijer Electronics assumes no responsibility for any defects in the material, or for any consequences that might arise from the use of the material. It is the responsibility of the holder to ensure that any systems, for whatever applications, which is based on or includes the material (whether in its entirety or in parts), meets the expected properties or functional requirements. Beijer Electronics has no obligation to supply the holder with updated versions.

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.
Please use the address support.europe@beijerelectronics.com for feedback about our Startup documents.

3 Table of Contents

- 1 Function and area of use.....2
- 2 About this document.....2
- 3 Table of Contents.....3
- 4 The iX example project4
 - 4.1 *The Script Module*4
- 5 Adding the Internet Detection5
 - 5.1 *Import the project parts*5
- 6 About Beijer Electronics6
 - 6.1 *Contact us*6

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

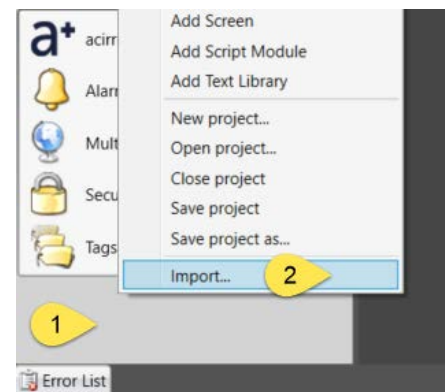
Tag			Controller	
Name	Datentyp	Zugriffsrecht	Datentyp	Controller 1
> Internet_Connected	BOOL	ReadWrite	DEFAULT	

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!



6 About Beijer Electronics

Beijer Electronics is a multinational, cross-industry innovator that connects people and technologies to optimize processes for business-critical applications. Our offer includes operator communication, automation solutions, digitalization, display solutions and support. As experts in user-friendly software, hardware and services for the Industrial Internet of Things, we empower you to meet your challenges through leading-edge solutions. Beijer Electronics is a Beijer Group company.

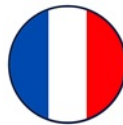
Beijer Group has a sale over 1.6 billion SEK in 2019 and is listed on the NASDAQ OMX Nordic Stockholm Small Cap list under the ticker BELE. www.beijergroup.com



China
Shanghai



Denmark
Roskilde



France
Champlan



Germany
Nürtingen



Italy
Salsomaggiore



Norway
Lier



South Korea
Geumcheon-gu



Sweden HQ
Malmö



Taiwan
Taipei City



Turkey
Istanbul



United Kingdom
Nottingham



Usa
Salt Lake City

6.1 Contact us

[Global offices and distributors](#)