Quick Start Guide

iX OpenBridge Template

SER0066 – Marine graphic template, aligned with OpenBridge

Beijer ELECTRONICS

1. Function and area of use

This document explains how to install and use our 'Marine graphic template' that is aligned with the OpenBridge Guideline.

This guide requires the following steps to be completed:

- Download the smartobject and install into iX Developer
- Verify the setup using the included example project.

2. About this document

This quick start guide should not be considered as a complete manual. It is an aid to be able to start using the 'Marine graphic template'.

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Use the following hardware, software, drivers and utilities to obtain a stable application:

Software

- iX Developer 2.40 SP7 or later https://smartstore.beijerelectronics.com

Hardware

- X2 pro/marine/extreme. Recommended size from 12" and above.
- NorthInvent IPC or similar with iX Runtime installed.

For further information refer to

- Beijer Electronics knowledge database, HelpOnline

This document and other quick start documents can be obtained from our homepage. Please use the address *support.europe@beijerelectronics.com* for feedback.

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4. Introduction

The Smartobject SER0066 'Marine graphic template' from Beijer Electronics is a template that can be used as an example of how to design Marine graphics according to the OpenBridge design guide.

OpenBridge started as a Multi-Disciplinary Research and Innovation Project headed by USN (University of South-Estern Norway), AHO (The Oslo School of Architecture and Design) and SINTEF (one of Europe's largest independent research organisations). It is now a consortium that builds upon ongoing research from multiple academic partners and maritime players.

The goal is to develop an open platform that provides better user interfaces and simplyfy multi-vendor integration on ships.

(https://www.openbridge.no)

5. The OpenBridge Guideline

OpenBridge provides a design guide and hundreds of free icons for maritime user interfaces.

All OpenBridge elements are accessible through the Figma design tool. You can find links to Figma OpenBridge libraries on their website.

Goals of OpenBridge Design Guideline:

- ✓ Realising user friendly and modern user interfaces adapted to maritime context.
- ✓ Realising consistent user experiences across all OpenBridge systems.
- ✓ Simplify approval processes.
- ✓ Reduce cost of design, implementation and use of maritime workplaces

See www.openbridge.no for the more information

Since the current X2 series and iX Runtime cannot use SVG graphics (Vector graphic files), you have to convert them to pixel graphics before using them in iX.

6. The example application

The example application consist of three major parts and a menu background. Some parts of the application is made in the maritime colors styles; night, dusk, day and bright day to show how this can be done. Other parts is only made in dusk colors.

Different methods is used to make the colors changes like scripting and object properties tied to tag-values. For some parts we have used different screens since the current X2 cannot use vector graphics with color change properties.

The colors used is according to OpenBridge with some small adjustment for readability. The fonts used is 'Open Sans' and Open Sans Light' recommended by OpenBridge. The font files is included in the Smartobject zip-file.

6.1 Menu backgrounds

The menu background is made in the four different color styles; night, dusk, day and bright day. All styles is used in the Bridge Conning screens, and the dusk style is used in the Machinery and Water Ballast screens.

6.1.1 Display Backlight Brightness

This menu is for adjusting the displays backlight brightness level from 0% to 100%. A systemtag 'SystemTagBacklightBrightnessLevel' controls this feature. The color style is controlled by a script in the popup screen and follows the selection in the menu for color style 'Day-Night'.

The backlight feature will only work with actual HMI panels in the X2-series, and not in simulation or PC environment.

6.1.2 Color Style Selection

This menu is for adjusting the screens color style; night, dusk, day and bright day. The colors is controlled by a script in the popup screen.

6.1.3 Left & right menues

Left and right menues to be defined by user. By default all actions close the popup. The colors is controlled by a script in the popup screen.

6.1.4 Alarm & user security

Alarm and user security is not part of this example. The menu items points to information screens. The colors is controlled by a script in the popup screen.

Please take a look at ‘SER0042 - Alarm & Monitoring Extention’ and ‘SER0072 - iX CyberSecurity Extention’ for this functionality.

6.2 Bridge Conning Screen

Bridge Conning screen in Dusk Colors.

Bridge Conning screen in Bright Day Colors.

Bridge Conning screen in Day Colors.

Bridge Conning screen in Night Colors.

6.3 Machinery Screen

Machinery screen in Dusk Colors

6.4 Water Ballast Screen

Water Ballast screen in Dusk Colors

7. Font installation

The fonts used in the example application is 'Open Sans' and Open Sans Light' recommended by OpenBridge. The font files is included in the Smartobject zip-file and have to be installed if you don't have them on your PC already.

Rightclick on the font file and select 'install for all users'.

8. Import project parts to your application

Follow the steps if you want to use part of the example in your own project:

1. Unpack the enclosed example ZIP-file to a temporary folder.
2. Start iX Developer and open 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 example application ZIP-file and select the screens you want (named *.neoxaml), click [Open].
6. Answer Yes to the followup questions.

Tip:

The Import supports **multi-selection** utilizing the “CTRL” button when selecting files – thus you can import all project parts in one step.

If you have imported the “BackgroundScreens” it has to be re-assigned to the screens where you want to use it.

9. 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.

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