



BoX2 Image Manual

User's Guide for BoX2 Image Manual

Foreword

The information in this document is valid for the latest versions of the panel images at the time the document was released.

For information and updates, see <https://www.beijerelectronics.com>.

Order no: MAEN205D

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1 Introduction

1.1 Safety Precautions

Both the installer and the owner and/or operator of the operator panel must read and understand the manual.

1.2 Warning, Caution, Information, and Tip Icons

This publication includes Warning, Caution, and Information where appropriate to point out safety related or other important information. It also includes Tip to point out useful hints to the reader. The corresponding symbols should be interpreted as follows:

	Electrical warning icon indicates the presence of a hazard which could result in electrical shock.
	Warning icon indicates the presence of a hazard which could result in personal injury.
	Caution icon indicates important information or warning related to the concept discussed in the text. It might indicate the presence of a hazard which could result in corruption of software or damage to equipment/property.
	Information icon alerts the reader to pertinent facts and conditions.
	Tip icon indicates advice on, for example, how to design your project or how to use a certain function.

1.3 Trademarks

Microsoft, Windows, Windows embedded CE6, Windows Embedded Compact 2013, Windows 7, Windows Embedded Standard 7 are registered trademarks or trademarks of Microsoft Corporation in the USA and/or other countries. Any additional trade names given in this documentation are trademarks of their corresponding owners.

1.4 References

Name	Description
MAEN202	Installation Manual X2

The installation, technical data as well cutout and outline dimensions of the panels are described in the installation manual for each operator panel. Please refer to the Installation manuals and the iX Developer manual for further information.

Note:

Current documentation and software updates can be found on

<http://www.beijerelectronics.com>

1.5 Operating Systems

image family	Runtime Versions (licenses)	Description
- BoX2 base	Windows CE6	Includes support of most existing features.
- BoX2 Pro - BoX2 Pro SC	Windows Embedded Compact 2013 Runtime (Entry)	
- BoX2 Extreme - BoX2 Extreme SC	Windows Embedded Compact 2013 Runtime (General embedded)	Includes support of most existing features.
BoX2 pro motion	WEC 2013 (Gem, ems)	Codesys runtime only

2 Image and CODESYS Update

The operator panel comes pre-loaded on delivery with a image.

iX Runtime can be updated via Ethernet using a PC.

The Image Loader utility is used to create Image Loader SD-cards and USB-sticks or to transfer a panel image to an operator panel over Ethernet.

The IML can be update in the following way:

Update method	iX Developer project remains	IP adress remains
Ethernet	X	X
USB	X	X
SD	X	X
Recovery SD Card	-	-

If you want a complete system update, choose Make Recovery SD Card. The iX Developer will then be set to default settings, except for touch.

2.1 Updating the Panel Image using USB or SD-Card

2.1.1 Preferred Way

Using a USB flash drive or SD-card to update the image in an operator panel is the preferred method of updating the panel. This makes it possible to upgrade the panel image without the use of a PC.

Note:

Image loader for iX TxA and X2 base only supports updating panel image using Ethernet.

2.1.2 Image + New iX Developer Project

It is possible to upgrade both the panel image and the iX Developer project on an operator panel. This is done in two steps:

1. Create a panel image USB flash drive or SD-card using the Image Loader utility.
 2. Export the iX Developer project from within iX Developer, to that same USB flash drive or SD-card.
-

Note:

Not applicable for BoX2 pro motion.

2.2 Updating the Panel Image over Ethernet

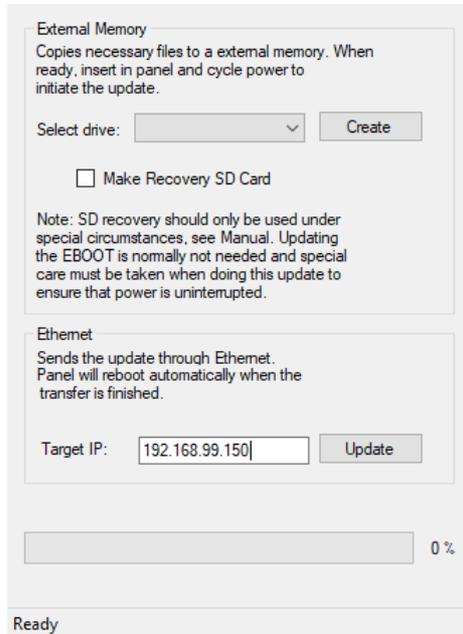
The Image Loader utility can be used to upgrade the panel image over Ethernet.

Note:

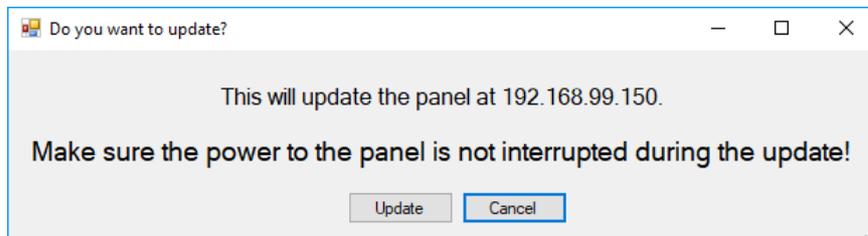
Before trying to update the panel over Ethernet, make sure that your PC is on the same IP-subnet as the operator panel. If your panel has an IP address of 192.168.1.1, and a netmask of 255.255.255.0, then your PC has to have an IP address in the range of 192.168.1.2 - 192.168.1.254 and a netmask of 255.255.255.0, in order to be able to communicate with the panel.

To enter the update mode on a iX TxA or X2 base, press a finger on the screen and apply power to the panel.

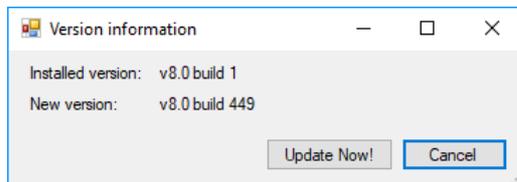
1. Enter the panel target IP address in the dialog and click on **Update** to start the update.



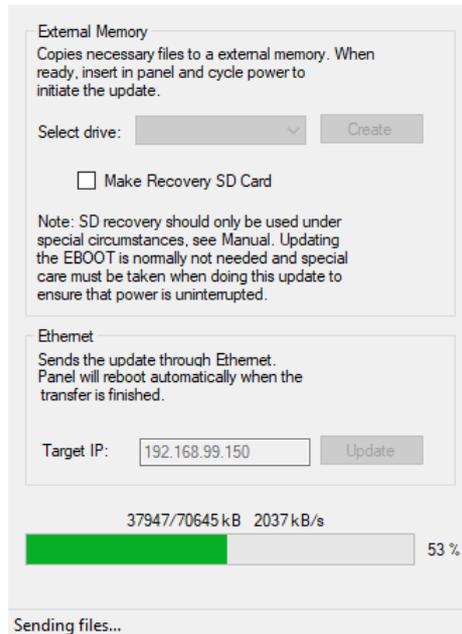
2. Make sure that the IP address of the panel matches the actual panel that you want to upgrade.



3. The dialog shows the current installed image and the new image the panel will be updated to after the upgrade. Click on **Update now!** to confirm the update.



4. The progress bar shows the upgrade status. When the upgrade is done, the panel will restart.

**Note:**

If the operator panel contains a CODESYS Runtime, then the CODESYS Runtime must be downloaded once again to the panel after the panel image has been changed.

2.3 iX Developer Project Status after Panel Image Update

On X2 pro, X2 extreme, X2 marine and X2 control, the iX Developer project is unchanged after a panel image update is performed. If the panel image upgrade is made over Ethernet, an additional dialog will pop up to confirm an erasing of the current iX Developer project. The default setting is not to erase the iX Developer project.

Note:

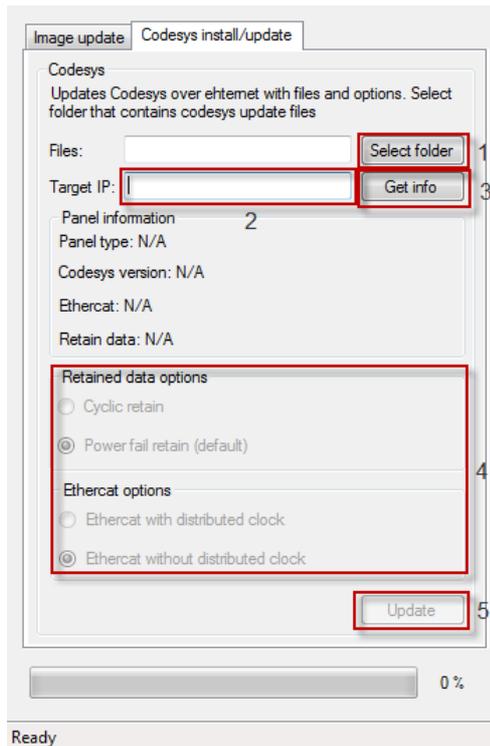
Not applicable for BoX2 pro motion.

2.4 Updating the CODESYS Runtime using Ethernet

To update the CODESYS Runtime, the folder containing the CODESYS .cab-files listed below must be specified in the Image Loader utility. The existing Power Management- and EtherCAT Distributed Clock settings are shown in the Image Loader utility, and can be set before updating the CODESYS Runtime.

temp > CoDeSys v3.5.10.10_5 >

Name	Date modified	Type	Size
CoDeSysControl_SC	2017-04-21 09:59	Cabinet File	9 256 KB
CoDeSysControl_SC_NoEcat	2017-04-21 09:59	Cabinet File	9 258 KB
CoDeSysControl_SM	2017-04-21 09:59	Cabinet File	9 253 KB
UpdateSoftPLCSW	2017-03-20 09:56	Application	24 KB
Version	2017-04-21 09:59	Text Document	1 KB



1. Select the folder that contains the CODESYS files.
2. Select the target IP address for the panel.
3. Press the **Get info** button to make sure that communication with the panel is working.
4. Select the desired options

Note:

The only valid options for X2 motion are **Power fail retain** and **EtherCAT with distributed clock**.

5. Press **Update** to perform the update. This button is disabled until communication has been established with the panel by previously pressing the **Get info** button.

Note:

Before downloading a new CODESYS Runtime, the panel image should always first be downloaded to the operator panel again, even if there are no changes to the panel image. If only the CODESYS Runtime is installed, then this may result in problems connecting to and communicating with other devices.

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