

Knowledge Base KB-0114-00 / Rev. 2.2

eWON recovery and major firmware upgrade

Besides the classical firmware update through .edf format file, eWON Flexy and eWON Cosy 131 also integrate a recovery feature which completely flashes the firmware and the operating system : the .ebu format file.

The eWON recovery concerns the eWON Flexy and Cosy 131 only. If an upgrade needs to be applied on an eWON CD or eWON Cosy 141, the process is always the same: a normal firmware upgrade via eBuddy. Check our <u>Support website</u> for more info.

A recovery can be used for :

- the recovering of a faulty eWON device.
- An upgrade to a major firmware.

- Note -

Recovery can be used for major firmware upgrade. But since firmware v12, major upgrade can also be done with classical firmware update (.edf) using what is called **pivot firmware** which doesn't imply recovery process, erasure of eWON configuration and is possible to perform remotely. For more information, please refer to <u>eWON</u> <u>support website</u>.

If you are using the eWON recovery to upgrade to a new major firmware release, make sure to backup the eWON before beginning the recovery process.

As part of the eWON recovery, all of your eWON's settings will be erased. You will need to restore your backup once the eWON recovery process is completed.

Use eBuddy to perform the eWON recovery.

- Caution -

It is <u>essential</u> to have the latest software version of eBuddy before performing any maintenance on an eWON unit.

eBuddy companion tool is available on the eWON website: http://ewon.biz/support/companion/ebuddy/ebuddy-0_____

Procedure to perform such recovery is explained hereunder.



1. Create an eWON backup

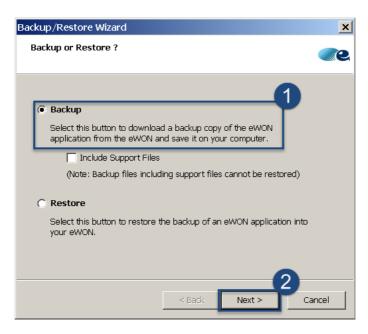
You can create a backup of your eWON configuration with <u>eBuddy</u>

• Select a eWON in the list ...

eBuddy - eWON N File View Tools He				
🔊 Export 🤷 Re	fresh 🜔 Open Browse	er 🖳 Set IP	SD Caro	l 🜔 Update eBuddy
Serial Number	Device Type	IP Address 🔺	Subnet Mask Backup/Restore (F4)	Firmware eZ DHCF
0001	eWON	10.0.100.12	255.255.0.0	8.1s2
160221	eWON Flexy 20x	10.0.100.32	255.255.255.0	9.0s0
130520	eWON Flexy 10x	10.0.100.145	255.255.0.0	11.0s0
130520	eWON Flexy 10x	10.0.100.146	255.255.0.0	11.0s0
1445	eWON COSY 131	10.0.100.160	255.255.0.0	11.0s1b0
130940	eWON COSY 141 MPI	10.0.100.169	255.255.0.0	11.0s0 MA
123938	TM-C	10.0.100.192	255.255.0.0	11.0s0 MA
130521	eWON Flexy 20x	10.0.100.193	255.255.0.0	11.0s0
130521	eWON Flexy 20x	10.0.100.194	255.255.0.0	11.0s0
130521	eWON Flexy 20x	10.0.100.195	255.255.0.0	11.0s0
110642	тм-н	10.0.100.206	255.255.0.0 10.0.0.254	7.0s0
074475	eWON 4005	10.0.100.210	255.255.0.0	11.0s0
074471	eWON 4102	10.0.100.211	255.255.0.0	11.0s0
0744	eWON 2001	10.0.100.212	255.255.0.0	7.0s0b2
074470	eWON 500 MPI	10.0.100.213	255.255.0.0	
0744	eWON 500 v2	10.0.100.214	255.255.0.0	11.0s0

... Click "Backup/Restore" or press "F4".

• Select Backup ...



... Click "Next"

• the serial number of the selected eWON unit is transferred to the "S/N or IP Address" field.



Knowledge Base

KB-0114-00 / Rev. 2.2

Backup/Restore Wizard
eWDN Identification Select the eWON to be backed up/restored
S/N or IP Address: 1602-0097-21 FTP Port: 21 (Default=21) Passive Mode
Administrator Login Username: adm Password: •••
< Back Next > Cancel

A If needed, you can select another eWON by clicking the "**Browse**" button ...

elect an eWON			
Serial Nu 🔺	Device Type	IP Address	ОК
1311-00 -56	eWON 4005CD	10.1.100.135	
1409-00 -21	eWON Flexy 20x	192.168.120.75	Cancel
1409-00 -21	eWON Flexy 20x	192.168.120.95	
1422-00 -59	eWON 2005CD	10.0.100.232	Refresh
1437-00 -22	eWON COSY 131	10.2.101.10	
1437-00 -22	eWON COSY 131	10.0.101.12	

... Click "**OK**"

B To perform the backup the administrator Login & Password of the eWON is required



• Click on the "..." button to browse your PC and select the directory where you want to store the backup. You can edit the default backup name **eWON.tar**.

Backup/Restore Wizard	×
Select the backup file	<u></u> e
Where do you want to save the backup copy ? Filename: D:\Downloads\ewon.tar	
< Back	Next > Cancel

... Click "Next"

• eBuddy saves the backup at the chosen location.

Your backup is created...

Backup/Restore Wizard	×
Transfer of backup file This page shows the backup/restore process	<u></u>
Backup successfully downloaded. Open Backup File	
< Back F	Finish

... Click "Finish"



2. Download the eWON Recovery firmware file

Through the "Update eBuddy" button in eBuddy (an Internet Connection is required)

🗘 eBuddy - eWON	Maintenance Utility					
File View Tools H	łelp					
🔊 Export 🥸 R	efresh 🜔 Open Browse	er 🖳 Set IP	🔗 Backup/Restore 🍯	🕽 Firmware 🛛 🔲 SD Card	🜔 Update eBuddy	
Serial Number	Device Type	IP Address 🔺	Subnet Mask	Gateway	Firmware	ez DHCD MAC Address est firmwares from the eWON website (F8)
0001-0002-77	eWON	10.0.100.12	255.255.0.0		8.1sz	test firmwares from the ewon website (Fo)
1602-0097-21	eWON Flexy 20x	10.0.100.32	255.255.255.0		9.0s0	00-03-27-03-19-2
1305-0002-20	eWON Flexy 10x	10.0.100.145	255.255.0.0		11.0s0	00-03-27-01-79-6
1305-0003-20	eWON Flexy 10x	10.0.100.146	255.255.0.0		11.0s0	00-03-27-01-79-7
1445-0002-22	eWON COSY 131	10.0.100.160	255.255.0.0		11.0s1b0	00-03-27-41-9B-[
1309-0107-40	eWON COSY 141 MPI	10.0.100.169	255,255,0.0		11.0s0 MA	00-03-27-41-8D-i
1239-0002-38	TM-C	10.0.100.192	255,255,0,0		11.0s0 MA	00-03-27-41-5A-i
1305-0016-21	eWON Flexy 20x	10.0.100.193	255,255,0.0		11.0s0	00-03-27-01-79-7
1305-0018-21	eWON Flexy 20x	10.0.100.194			11.0s0	00-03-27-01-79-7

eBuddy will then prompt the latest available Firmware.

			×
Selection of firmware	-5		 2
Product Range: Cosy Select the new firm	Product: All products	Language: All languages ad:	
Product	Language	Version	
eWON COSY 131	Multi: English, Frenc		
eWON COSY 141	Multi: English, Frenc		
ewon cosy 14	Multi: English, Frenc		
Firmware Release Note	<u>s</u>	Select All D	Deselect All
	< Back	Next >	Cancel

Select the needed parameters

... Click "Next"



Your eBuddy will download the last firmware for the selected products



3. Run eWON Recovery from eBuddy

- Important -

This operation requires a LOCAL connection to the eWON. A switch MUST be used between eWON and your PC!

Select the eWON in the list

🜻 eBuddy	- eWO	N Maintenar	nce Utili	ity			
File View	Tools	Help					
Export	Ope	n in Browser	F9		믿 Set IP	Backup/Rest	tore
Serial Nur	Set	IP Address	F2		ess 🔺	Subnet Mask	
1602-0097	Upo	late Firmware	F3		0.32	255.255.255.0	
1305-0002	eW	ON Recovery	F7		0.145	255.255.0.0	
1305-0003	Bac	kup/Restore	F4		0.146	255.255.0.0	
1445-0002	Cre	ate eZ IP	F6		0.160	255.255.0.0	
1309-0107		nove eZ IP	Shift+F	=6	0.169	255.255.0.0	
1239-0002			0		0.192	255.255.0.0	
1305-0016	Upo	late eBuddy	F8		0.193	255.255.0.0	
1305-0018	Mar	iage SD Card	F11		0.194	255.255.0.0	
1305-0022	Lan	quaqe		•	0.195	255.255.0.0	
1106-0013			L	.0.0.10	0.206	255.255.0.0	
0744-0001	-75	eWON 4005	1	0.0.10	0.210	255.255.0.0	

... Click "Tools -> eWON Recovery" or press "F7"

In case your eWON is not in the list, just type manually its serial number.

eWON Recovery W	izard		×
	eWON Recovery Wizard ould you like to recover?		e
Serial Number:	1602-0097-21	Browse	
	< Back	Next >	Cancel

... Click "Next"

- Note -

It is not mandatory to have the eWON visible in eBuddy to perform a recovery.



Verify the information in the following windows before recovering the eWON.

	eWON Recovery Wizard	×
eWON Recovery Wizard X Welcome to the eWON Recovery Wizard Which eWON would you like to recover?	Firmware Selection Here you can select the new firmware	@ @
Serial Number: 1602-0097-21 Browse	Current Device Information IP Address: 10.0.100.32 Serial Number: 1602-0097-21	
The eWON is responsive. Do you really need the recovery procedure? This is usually required only when the eWON is no longer responsive or when a low-level upgrade is requirec	Product Type: eWON Flexy 20x Firmware: 9.0s0	
 Yes, continue with the recovery procedure. WARNING: Some data will be lost. C Switch to the regular firmware update procedure. 	Language: English, French, German, Spanish Version: 11.0 s0	
< Back Next > Cancel	<pre></pre>	Cancel

... Click "Next"

- Note -

If the eWON is not visible in eBuddy, some data might be incorrect (IP, Current Firmware) . For example: Firmware can be consider as "Unknown firmware" This information has no direct impact on the recovery process



Knowledge Base KB-0114-00 / Rev. 2.2

eBuddy will now scan the network to find the eWON in recovery mode



Depending the eWON type, eBuddy will propose instructions to switch the eWON in recovery mode :

Flexy Family

Please boot the eWON while keeping the reset button (BI1) pressed until this message disappears.

IMPORTANT:

Do not use a direct cable between the eWON and the computer. Please put a switch in-between.

If this message does not disappear within around 20 seconds after you booted the eWON, there is probably something wrong. Please check your cabling and try again.



Cosy Family

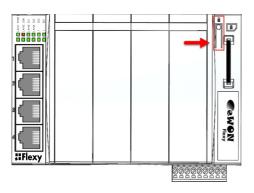
Please boot the eWON while keeping the reset button (BI1) pressed until this message disappears.

IMPORTANT: Do not use a direct cable between the eWON and the computer. Please put a switch in-between.

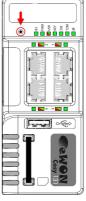
Plug your cable in the permanent LAN port of the eWON Cosy.

If this message does not disappear within around 20 seconds after you booted the eWON, there is probably something wrong. Please check your cabling and try again.

- 1. Connect the eWON using an Ethernet cable via the LAN port (Use only the LAN port #1 on the eWON COSY 131)
- 2. Power OFF the eWON, Power ON the eWON and hold the reset button (BI1) pressed until the eWON is detected by eBuddy



Flexy Family



Cosy Family

- Tips -

Use a thin tool or a paper clip to push the Reset button . The Led "BI1" gives the status of the reset button.



Once eBuddy has detected the eWON as in recovery mode,

Click the reset button twice again to start the recovery.

Restoring firmware 11.0 s0 (English, French, German, Spanish)

- 🥝 eWON Recovery mode started.
- ⇒ Please press the reset button (BI1) twice more.

At this step, eBuddy detects if a new Bootloader version must be installed on the eWON

If required eBuddy will update the Bootloader



... and ask to restart the recovery procedure again.

Then you need to power the eWON off and on again with the reset button pressed.





The recovery procedure will restart and then continue until the end of the process:

Restoring firmware 11.0 s0 (English, French, German, Spanish)

🥝 eWON Recovery mode started.

- Reset button detected.
- Secure connection established.
- 🗇 Uploading file #4 (2479 KB)

Restoring firmware 11.0 s0 (English, French, German, Spanish)

- 🥝 eWON Recovery mode started.
- 🥝 Reset button detected.
- 🥝 Secure connection established.
- Ø Firmware uploaded successfully.
- O The eWON is now upgraded to 11.0 s0 and ready.

... The eWON is now ready

- Caution -

If the Recovery Wizard cannot be successfully operated please take a look at the troubleshooting section



4. Restore an eWON backup

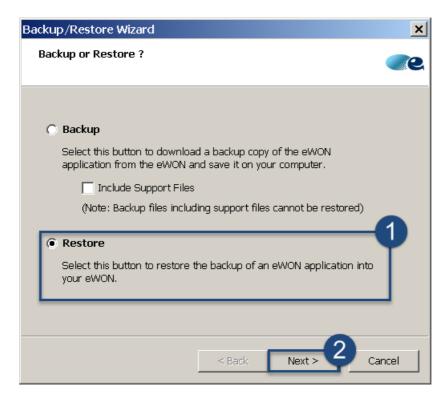
eBuddy can also restore a backup of your eWON configuration (as view in the Section 1)

• Select a eWON in the list ...

File View Tools H	lelp					
📄 Export 🧟 Re	efresh 🜔 Open Browse	er 🖳 Set IP	🔗 Backup/Restore	Firmware 🔲 SD C	ard 🛛 🌔 Update eBudd	ly
Serial Number	Device Type	IP Address 🔺	Subnet Mask	(Restore (E4)	Firmware	eZ DHCP
0001	eWON	10.0.100.12	255.255.0.0		8.1s2	
160221	eWON Flexy 20x	10.0.100.32	255.255.255.0		9.0s0	
130520	eWON Flexy 10x	10.0.100.145	255.255.0.0		11.0s0	
1305	eWON Flexy 10x	10.0.100.146	255.255.0.0		11.0s0	
144522	eWON COSY 131	10.0.100.160	255,255,0.0		11.0s1b0	
130940	eWON COSY 141 MPI	10.0.100.169	255.255.0.0		11.0s0 MA	
123938	TM-C	10.0.100.192	255,255,0.0		11.0s0 MA	
130521	eWON Flexy 20x	10.0.100.193	255.255.0.0		11.0s0	
130521	eWON Flexy 20x	10.0.100.194	255,255,0.0		11.0s0	
130521	eWON Flexy 20x	10.0.100.195	255.255.0.0		11.0s0	
1106	TM-H	10.0.100.206	255,255,0.0	10.0.0.254	7.0s0	
074475	eWON 4005	10.0.100.210	255.255.0.0		11.0s0	
0744	eWON 4102	10.0.100.211	255,255,0.0		11.0s0	
0744	eWON 2001	10.0.100.212	255.255.0.0		7.0s0b2	
0744	eWON 500 MPI	10.0.100.213	255.255.0.0			
074490	eWON 500 v2	10.0.100.214	255.255.0.0		11.0s0	

... Click "Backup/Restore" or press "F4".

• Select Restore ...



... Click "Next"



 The serial number of the selected eWON unit is transferred to the "S/N or IP Address" field.

Backup/F	Restore Wizard					×
	Identification ect the eWON to be	e backed	l up/restorec	1		@ Q
B	5/N or IP Address: FTP Port:	21	0097-21	ılt=21)	Brows	e
	-Administrator Log Username: Password:	adm				
			< Back	N	ext >	Cancel

A) If needed, you can select another eWON by clicking the "**Browse**" button ...

Serial Nu 🔺	Device Type	IP Address		OK
l311-00 -56	eWON 4005CD	10.1.100.135		
L409-00 -21	eWON Flexy 20x	192.168.120.75		Cancel
L409-00 -21	eWON Flexy 20x	192.168.120.95		
L422-00 -59	eWON 2005CD	10.0.100.232		Refresh
L437-00 -22	eWON COSY 131	10.2.101.10		
1437-00 -22	eWON COSY 131	10.0.101.12		

... Click "OK"

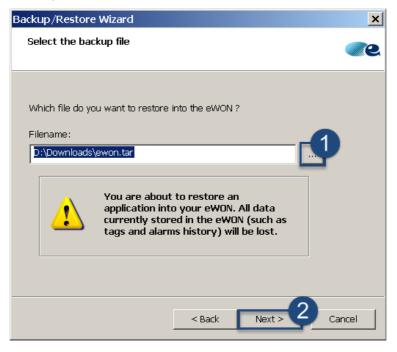
B To perform the backup the administrator Login & Password of the eWON is required



Depending on the type of recovery actions, the eWON was perhaps reset to its default parameters. The default Login/Password is adm/adm. These credentials should be changed!



• Click on the "..." button to browse your PC and select the directory where you have stored the backup.



... Click "Next"

eBuddy restores the backup from the chosen location.
 Your eWON is restored...



... Click "Finish"

- Caution -

Reboot the eWON to apply changes

- Tips -

Restore can also be managed by SD Card (starting firmware v11). Please refer to the <u>SD Card documentation</u> for more information about this option.

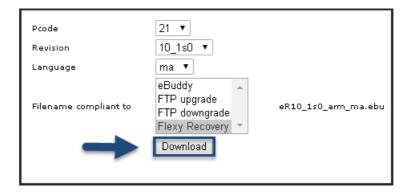


5. Troubleshooting

5.1. Download the eWON Recovery firmware file

Through the Manual firmware download webpage

In this page, select the firmware version and "Flexy Recovery",



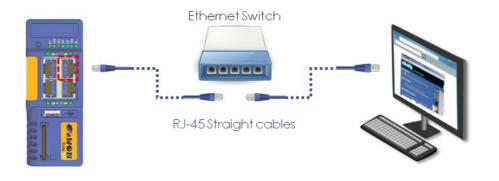
... Click "Download"

You will get a file with the extension ".ebu".

This file has to be copied in the "Firmware" directory of eBuddy (C:\Program Files[x86]\eBuddy\Firmware).

5.2. Connect to the eWON

We recommend to perform the recovery on an "isolated" local network loop.



- Tips -

As your PC may take to much time to rise the Ethernet connection. We recommend to use an intermediate "Switch" and two "Straight" Ethernet cables between your eWON and your computer



5.3. Recovery mode detection failure

Have you entered the correct serial number?

 $\rightarrow\,$ Indicating wrong serial number does not enable the eWON to be detected by eBuddy and continues the recovery action.

Is the eWON in recovery mode?

 \rightarrow We recommend you to press the reset button (BI1) already before powering on your eWON.

-Note-

The recovery procedure has a timeout after which your unit won't be detected anymore.

5.4. Restore with a different Memory Organization

Restoring a comcfg.txt file (contained in the backup) on an eWON with a different Memory Organization will reformat your eWON at the next boot (see chapter 3.3.4.5.1 Memory config in the RG-001).

To avoid this problem, eBuddy will restore your file in two steps:

- Step 1: reformat the memory to match the new organization
- Step 2: put the Backup file on the eWON

For that reason, in this case, the overall restore procedure will take a longer time.

5.5. Restore from a file "Including Support files"

If you restore a backup with the check-box "Include Support Files" checked, all the information files will be also transferred on the eWON and, as they cannot be written, they will generate some error in the diagnostic page.

Time	Event	Description	Originator	Help
15/07/2010 15:57:50	1073763130	eftp-Close FTP session (User: Adm)	ftps	
15/07/2010 15:57:50	28604	secu-The file the user is trying to write is unknown	ftps	
15/07/2010 15:57:50	28606	secu-The file is read only	ftps	1
15/07/2010 15:57:50	28604	secu-The file the user is trying to write is unknown	ftps	
15/07/2010 15:57:50	28604	secu-The file the user is trying to write is unknown	ftps	
15/07/2010 15:57:50	28604	secu-The file the user is trying to write is unknown	ftps	
15/07/2010 15:57:50	28604	secu-The file the user is trying to write is unknown	ftps	
15/07/2010 15:57:50	28604	secu-The file the user is trying to write is unknown	ftps	
15/07/2010 15:57:50	28606	secu-The file is read only	ftps)
15/07/2010 15:57:49	28002	bakfile-Could not rename file to backup	ftps	
15/07/2010 15:57:49	28002	bakfile-Could not rename file to backup	ftps	
15/07/2010 15:57:12	1073763129	eftp-Open FTP session (User: Adm)	ftps	

Even with these errors, your restore process is successful.



Revision

Revision History

Revision Level	Date	Description
1.0	15/02/2015	Creation
2.0	20/01/2016	Total revision of the document
2.1	16/02/2016	Added CD section
2.2	06/03/2017	Added notion of pivot firmware

Document build number: 26

Note concerning the warranty and the rights of ownership:

The information contained in this document is subject to modification without notice. Check https://ewon.biz/support for the latest documents releases.

The vendor and the authors of this manual are not liable for the errors it may contain, nor for their eventual consequences.

No liability or warranty, explicit or implicit, is made concerning the quality, the accuracy and the correctness of the information contained in this document. In no case the manufacturer's responsibility could be called for direct, indirect, accidental or other damage occurring from any defect of the product of errors coming from this document.

The product names are mentioned in this manual for information purposes only. The trade marks and the product names or marks contained in this document are the property of their respective owners.

This document contains materials protected by the International Copyright Laws. All reproduction rights are reserved. No part of this handbook can be reproduced, transmitted or copied in any way without written consent from the manufacturer and/or the authors of this handbook.

HMS Industrial Networks