

<u>Manual</u>

USB-DRIVE-SETUP & RECOVERY-PE USBI-DRIVE-SETUP & RECOVERY-PE USB-DRIVE-BACKUP & RECOVERY-PE USBI-DRIVE-BACKUP & RECOVERY-PE



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1 Introduction

The delivery of our devices includes a USB stick with an image according to your licence for the recovery of the operating system.

The following four options are available:

- USB-Drive-32-GB-Setup&Recovery-PE: Non-Ex USB stick with Recovery-PE-Lite software
- USBi-Drive-32-GB-Setup&Recovery-PE: intrinsically safe USB stick with Recovery-PE-Lite software
- USB-Drive-32-GB-Backup&Recovery-PE: Non-Ex USB stick with Recovery PE software
- USBi-Drive-32-GB-Backup&Recovery-PE: intrinsically safe USB stick with Recovery PE software

The Recovery-PE software can be used for image recovery as well as for the creation of individual backup images.

This manual describes how to restore a system image using Recovery-PE-Lite, and the creation of a backup image with Recovery-PE.



Only use intrinsically safe USB sticks in hazardous areas ! Always refer to the relevant information contained in the Operating Instructions for the HMI device.

2 Recovery PE Lite

Connect the USB drive / USBi drive with the HMI and restart the HMI.

The device will boot from the USB drive/USBi drive. Once the system has booted, the following window appears:



A small dialogue at the upper edge of the screen contains information on the status of the initialisation. Wait until all items have been ticked off.



If you are using the USB drive / USBi drive for the first time with a device, the calibration process will begin once you touch the screen.

2.1 Touch Calibration

A sequence of crosses will appear at different positions on the screen.

- Touch each cross in its centre.
- The cross will be replaced by a tick \checkmark , signalling the successful completion of the calibration step.
- Repeat for the next three crosses.

The following message will then pop up:

Fooferm	
Contirm	

Please press the button above to confirm correct calibration.

If you are unable to hit the button due to a bad calibration, it will restart automatically after 10 seconds!

Confirm the completion of the calibration process by clicking on the "Confirm" button. You may now start restoring the system. There are two options to do this: Easy System Restore and Expert System Restore.

2.2 Easy System Restore



Select "F2 = Easy System Restore" from the Recovery-PE-Lite Menu for easy restoring of the sytem image. If more than one image is stored on the stick, the following window (images are examples) will pop up for the selection of an image:

F2 = ET3XX_	Shell_01.04.000	0
2 - Simptic LIMI Win	71 lkimeta 64 kit l	D 2 6 1

Select the image you need. The following window will pop up:

		-
Simatic HMI Win7 Ultin	nate <mark>64-bit</mark> Rev 2.6.1	
will be restored to s	vstem disk (HD1)	
THIS WILL DELETE ALL	. DATA ON THIS [DISK!
THIS WILL DELETE ALL	DATA ON THIS I	DISKI

Confirm that you want to start the process with "F2 = Start Restore".

Once the image has been successfully restored, remove the USB-Drive / USBi-Drive from the HMI and restart the device.

At the end, you need to define out the Windows settings (language, time zone, time,...).

2.3 Expert System Restore

2.3.1 Start

Select "Expert System Restore" in the Recovery-PE-Lite menu.



2.3.2 Restoring Image

The "Snapshot Main Menu" will pop up.



In the Snapshot main menu, click on the "Restore" button.

2.3.3 Selecting Image

The "Snapshot - Restore Volume" dialogue will pop up.

			-
Computer	Volume	Label	
Filesystem	Harddisk	Part.	
Original size		Date	
Required size		Free	
Not an accessible an	d valid image!		

Click on the "Browse" button.

The "Select image file to restore" dialogue will pop up:

B		Select	image file to i	restore	2		>
Look in:	Computer			•	(⇒ 🖻		•
Ca.	Hard Disk Dr	ives (1) —					
Recent places	Sys	tem (C:)					
	2.37	7 GB free o	f 11.9 GB				
Desktop	Devices with	Removabl	le Storage (2) —				
(Han)	REC	OVERY_P	E (D:)	ľ.			
Libraries	2.39	GB free o	f 14.2 GB				
			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1			
Computer	J						
INELWORK	File name:	1				-	Open
	Files of type:	Canad	timere (* CNIA)				Cancel
	Files of type.		not image (.5INA)			-	
		i opo	— —	_	_		
	Computer:		Volume:	L	abel:		
	Filesystem:	li e	Harddisk:	F	art.:		
	Original size:	T		c	late:		
	Required size:	1		F	ree:		
					A.		

As the source area, select "Computer". Now click on the source directory "Recovery_PE". The dialogue will be replaced by the directory window.

Look in:	CrashRecov	veryPE (Y:)	•	⇐ 🗈 💣 📰 ◄	
æ.	Name	*		Date modified	Туре
Recent places	Boot	-		08/06/2015 7:29 PM 08/06/2015 6:32 PM 10/06/2015 2:42 PM	File folde File folde File folde
Desktop	PersistentS	iettings		08/06/2015 7:12 PM 08/06/2015 6:32 PM 09/06/2015 9:02 AM	File folde File folde File folde
Libraries Libraries Computer					
Network	<				>
Network	< File name:			[> Open
Network	< File name: Files of type:	Snapshot image (*.SNA)		[> Open Cancel
Network	< File name: Files of type:	Snapshot image (*.SNA) ⊡ Open as read-only		• •	Open Cancel
Network	< File name: Files of type: Computer:	Snapshot image (*.SNA)	La	▼ _	> Open Cancel
Network	File name: Files of type: Computer: Filesystem:	Snapshot image (*.SNA) Open as read-only Volume: Harddisk:	La	sbet:	Open Cancel
Network	File name: Files of type: Computer: [Filesystem: [Original size: [Snapshot image (*.SNA) Open as read-only Volume: Harddisk:	La Pa D.	abet	Open Cancel
Network	File name: Files of type: Computer: [Filesystem: [Original size: [Snapshot image (*.SNA) Open as read-only Volume: Harddisk:	La Pa D.	sbei:	Ope Cano

Open the "Images" directory with a click of the left mouse key.

Depending on which Windows version and revision you are using, the name of the image may vary.

2		Select in	hage file to re	store		
Look in:	🔒 Images			• \$	• 🗈 💣 💷 •	•
C.	Name		^			Date modifie
Recent places	🔅 Open HN	Al Win7			SNA	26/06/2014 1
Desktop						
Libraries						
Computer						
Computer						
Computer Computer Network	۲.					
Computer Computer Network	< File name:	Open HM	l Win7		.	Open
Computer Computer Network	< File name: Files of type:	Open HM Snapshot	I Win7 image (*.SNA)			Open Cancel
Computer Computer Network	< File name: Files of type:	Open HM Snapshot	IWin7 image (*.SNA) as read-only		• •	Open Cancel
Computer Computer Network	File name: Files of type: Computer:	Open HM Snapshot Open a CrashRecove	IWin 7 image (*.SNA) as read-only Volume: C:	Label:	System	Open Cancel
Computer Computer Network	File name: Files of type: Computer: Filesystem:	Open HM Snapshot Open a CrashRecove NTFS	I Win 7 image (*.SNA) as read-only Volume: C: Harddisk: 1	Label:	System	Open Cancel
Computer Computer Network	 File name: Files of type: Computer: Filesystem: Original size: 	Open HM Snapshot Open a CrashRecove NTFS 12.577.868	IWin7 image (*.SNA) as read-only Volume: C: Harddisk: 1 KB=12283MB	Label: Part.: Date:	System Primary 1 26/06/2014 1:3	Cancel

Click on "Open" to confirm your selection. The file selection window will close and the system will return to the "Snapshot - Restore Volume" dialogue.

Computer	CrashRecove	Volume C:	– Label	System
Filesystem	NTFS	Harddisk 1	Part.	Primary 1
Driginal size	12.577.868	(B=12283MB	Date	26/06/2014 1:32 PM
Required size	10.629.120	(B=10380MB	Free	4.622M

Click on "Next" to continue.

2.3.4 Getting a drive ready for booting

The dialogue for the selection of the target drive will pop up:

Selection

Drive HD	PartNo	PartStart	PartSize	Label	Filesystem	Size	Used	Free		
0; 2 ≺: 0	Pri 1 Pri 1 ??	1 0	12283 14542 3	System RECOVERY Boot	07-NTFS 07-NTFS 72-NTFS	12283 14542 244	9853 12085 2	2429 2456 242		
HD 1 SILICONSYS 15.26 GB	TEMS	: System 2.00 GB NTFS) Active							FREE 3.27 GB 0	

Proceed with the "Restore Master Boot Record" as follows:

- For Drive, click on "C:"
- In the target directory field (grey box HD1), open the context menu with a right mouse click



In the context menu, click on "Restore Master Boot Record". The following warning will pop up:

	[27] Sn	apshot - I	Restore M	MBR	
					Help
All data on Do you real Y:\Images\ to HD 1?	HD 1 will be o ly want to res Open HMI Wi	leleted! tore the MB n7 Embedd	R from ed Standar	d 32-bit Re	v 1.2.0.SNA
		/es	No	1	
to HD 1?		/es	No	1	

Click on "Yes". Once the "Restore Master Boot Record" has been completed successfully, you will see the following message:



Confirm by clicking on "OK". The "Snapshot Main Menu" dialogue will pop up.

2.3.5 Installing Image

electit	ne vosu	me to res	tore								All sizes are i	n P
Drive	HD	PartNo	PartStart	PartSize	Label	Filesystem	Size	Used	Fice			_
D: X:	2	Pn 1 77	1 0	14542 3	RECOVERY Boot	07-NTFS 72-NTFS	14542 244	12085 2	2456 242			
HD 1 SILICO 15.26	ONSYS GB	TEMS	C: System 12.00 GB (NTFS) Active	e .						FREE 3.27 GB 0		

Continue the "Snapshot - Restore Volume" dialogue by clicking on "Next". The following warning will pop up:

	[46] Snapshot	- Last Warning	Help
This will overwrite \ D:\Images\Factory\ Do you want to cor	volume E: with the Open HMI Win7 htinue?	e image stored in fil Ultimate 64bit Rev 2	le 2.4.1 <mark>-</mark> Series 4x8.SNA
	Yes	No	

Confirm with "Yes". The image will now be loaded onto your device.

3	1% Snapshot - Restore 🛛 🗕 🗖 🗙
Restorir	ng
Image	D:\Images\Factory\Open HMI Win7SNA
to	E:
Curr	ent file D:\Images\Factory\Open HMI Win7
	Read 92.652.128 - written 167.772.160
	· · · · · · · · · · · · · · · · · · ·
	Abort

Once the image has been successfully installed, the following message will pop up:

8	100% Snapshot - Restore 🛛 🗕 🗙
Restorir	g
Image	D: \Images \Factory \Open HMI Win7SNA
to	E:
Curr	ent file D+\Images\Eactory\Open HMI Win7 SNA
(Internet internet in	and the D- philagesty actory open mine with
	Done 100% in 10:03 minutes
	Read 6.849.171K - written 14.959.420K
	Operation successful!
	·
	ок

Confirm the message "operation successful" by clicking on "OK". Once the image has been successfully restored, remove the USB drive / USBi drive from the HMI and restart the device.

2.3.6 Restarting the device

After re-starting, the device will first install the system data. After that, the window for the touch calibration will open (see chapter 2.1 Touch Calibration).

2.3.7 Checking System Date

The following window will pop up after a restart:

Correct System Date	System date: 3/18/2015 Windows Embedded Standard 7 requires no activation and therefore has no 39 day activation grace period!
Continue with Setup	Setup will continue after a device restart with the Windows Welcome Wizard. If this device is equipped with a touch screen that was properly calibrated in the previous steps. touch functionality will be available during setup!
Prepare for Shipping	The device must restart once to finalize shipping preparation. Do not turn off power or interrupt! On the day the device is startet thereafter the Windows Welcome Wizard will be shown and the Windows system language can be selected.

- Check the system date
- If necessary, correct this by clicking on "Correct System Date"
- Continue by clicking on "Continue with Setup"

Your device will now be set up for your first operation.

NOTE:	A Window label must copy of v	ws Embedded Sta st be attached to vindows is illegal!	andard 7 license the device or this
	107-889	Windows® Embedde Standard 7 (WS7E) C00989 618-107-889 X16-83932	d
		Confirm	

Confirm that the device has a Windows Embedded Label. In the case of a device running Windows 7, click on "Confirm". The settings are now accepted by your device and your device is started up. The following message will pop up:



Finally, you will have to select a language and time zone. After that you need to make the required Windows settings.

3 Recovery PE

Connect the USB drive/USBi drive with the HMI and restart the device. The application will start up:



A small dialogue at the upper edge of the screen contains information on the status of the initialisation. Wait until all items have been ticked off.



If you are using the USB drive / USBi drive for the first time with a device, the calibration process will begin once you touch the screen (see chapter 2.1 Touch Calibration).

Open the Snapshot Main Menu by clicking on at the bottom left. The "Snapshot Main Menu" will pop up. With this recovery software version the system recovery will proceed as with the Recovery-PE-Lite version (see chapter 2.3.2 Restore Image).

In addition, you can use this software to create your own backup image.

3.1 Creating a backup



In the Snapshot main menu, click on the "Backup" button. The window for the volume / image selection will pop up.

8	5				Snap	oshot - Back	up Volumes	;		-	×
	Select th	e volur	nes to bao	:kup						All size:	s are in MB
	Drive	HD	PartNo	PartStart	PartSize	Label	Filesystem	Size	Used	Free	
	C:	1	Pri 2	501	170903	Windows	07-NTFS	170902	145163	25739	
	D: G:	2 8	Pri 2 Pri 1	129 0	244069 1907726	Volume FreeAgent	07-NTFS 07-NTFS	244068 1907	227596 1164	16472 743549	
	HD1:1	1	Pri 1	1	500	Unknown	00-Unkno	500	500	0	
	HD1:3 HD2:1	2	Pri 3 Pri 1	171405 0	300 128	Unknown	07-NTES 07-Unkno	299 128	254 128	45 0	
	1										
	HD 1 INTEL 167,68 GPT	SSDS(GB	C HD1:1 500 W (Unkn	C: Windo 166,90 G (NTFS)	ws B						HD1:3 300 M (NTFS
	HD 2 TS256 238,47 GPT	GMTS GB	4 HD2:1 128 M (Unkno	D: Volum 238,35 G (NTFS)	ie B]	
	📕 Unali	ocated	Prima	ry partition	Logica	I drive 📕 Dyn	amic partition	Active p	artition		
					<u>B</u> a	ack	<u>N</u> ext				

Select the image you wish to copy (C:) and click on "Next". The target directory selection image will pop up.

👶 Snapshot - Backup of C: 🗕 🗆 🗙
Destination image file G:\i_Images_etc\Backup_of_HMI\Win10_IoT_with_Client_application_Ver
Create differential image Browse Select hash file of full image (full image itself is not required) Image (full image itself is not required)
Free space In use by Total Empty recycle bin now on target existing available Recycle bin drive: image file: space in MB: Recycle bin 743549 + 0 = 743549 Always empty recycle bin Always empty recycle bin
Password Store Verify password
Bac <u>k</u> Advanced <u>options</u> <u>S</u> tart backup

You need to make sure that the target directory has sufficient memory capacity. Click on "Start Backup" to create the image. Once the process is complete, you need to store the new image (*.SNA file) to the "Images" directory on the USB stick, from where you can restore it when the need arises.

4 Release notes

The chapter entitled "Release Notes" contains all the changes made in every version of the Instructions.

Version 01.00.00

• First edition

Version 01.00.01

• Formal changes

Version 01.00.02

- Changing text according to "Image installation"
- Formal changes

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