

## Legal information

#### Use of application examples

Application examples illustrate the solution of automation tasks through an interaction of several components in the form of text, graphics and/or software modules. The application examples are a free service by Siemens AG and/or a subsidiary of Siemens AG ("Siemens"). They are non-binding and make no claim to completeness or functionality regarding configuration and equipment. The application examples merely offer help with typical tasks; they do not constitute customer-specific solutions. You yourself are responsible for the proper and safe operation of the products in accordance with applicable regulations and must also check the function of the respective application example and customize it for your system.

Siemens grants you the non-exclusive, non-sublicensable and non-transferable right to have the application examples used by technically trained personnel. Any change to the application examples is your responsibility. Sharing the application examples with third parties or copying the application examples or excerpts thereof is permitted only in combination with your own products. The application examples are not required to undergo the customary tests and quality inspections of a chargeable product; they may have functional and performance defects as well as errors. It is your responsibility to use them in such a manner that any malfunctions that may occur do not result in property damage or injury to persons.

#### Disclaimer of liability

Siemens shall not assume any liability, for any legal reason whatsoever, including, without limitation, liability for the usability, availability, completeness and freedom from defects of the application examples as well as for related information, configuration and performance data and any damage caused thereby. This shall not apply in cases of mandatory liability, for example under the German Product Liability Act, or in cases of intent, gross negligence, or culpable loss of life, bodily injury or damage to health, non-compliance with a guarantee, fraudulent non-disclosure of a defect, or culpable breach of material contractual obligations. Claims for damages arising from a breach of material contractual obligations shall however be limited to the foreseeable damage typical of the type of agreement, unless liability arises from intent or gross negligence or is based on loss of life, bodily injury or damage to health. The foregoing provisions do not imply any change in the burden of proof to your detriment. You shall indemnify Siemens against existing or future claims of third parties in this connection except where Siemens is mandatorily liable.

By using the application examples you acknowledge that Siemens cannot be held liable for any damage beyond the liability provisions described.

#### Other information

Siemens reserves the right to make changes to the application examples at any time without notice. In case of discrepancies between the suggestions in the application examples and other Siemens publications such as catalogs, the content of the other documentation shall have precedence.

The Siemens terms of use (https://support.industry.siemens.com) shall also apply.

#### Security information

Siemens provides products and solutions with industrial security functions that support the secure operation of plants, systems, machines and networks.

In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art industrial security concept. Siemens' products and solutions constitute one element of such a concept.

Customers are responsible for preventing unauthorized access to their plants, systems, machines and networks. Such systems, machines and components should only be connected to an enterprise network or the Internet if and to the extent such a connection is necessary and only when appropriate security measures (e.g. firewalls and/or network segmentation) are in place.

For additional information on industrial security measures that may be implemented, please visit <a href="https://www.siemens.com/industrialsecurity">https://www.siemens.com/industrialsecurity</a>.

Siemens' products and solutions undergo continuous development to make them more secure. Siemens strongly recommends that product updates are applied as soon as they are available and that the latest product versions are used. Use of product versions that are no longer supported, and failure to apply the latest updates may increase customer's exposure to cyber threats.

To stay informed about product updates, subscribe to the Siemens Industrial Security RSS Feed at: <a href="https://www.siemens.com/industrialsecurity">https://www.siemens.com/industrialsecurity</a>.

## **Table of contents**

Leg	Legal information2				
1	Introdu	ıction	4		
	1.1	Overview			
	1.2	Overview and operation of the backup variants			
	1.3	Components used	8		
2	Engine	ering	9		
	2.1 2.2	Booting a medium when starting a SIMATIC IPC  Boot-capable USB flash drive with "SIMATIC IPC Image &			
	0.04	Partition Creator" software			
	2.2.1 2.2.2	Create a technician USB flash driveCreate and restore a backup with the technician USB flash			
		drive			
	0.00	Explanation of the configuration screen			
	2.2.3 2.2.4	Create an end customer USB flash driveRestoring a device-specific backup to the end customer USB			
		flash drive	27		
	2.3	Create and configure a "1ClickImage" backup			
	2.3.1 2.3.2	Installing the Paragon Hard Disk Manager 15 SuiteInstallation of n 1ClickImage			
	2.3.3	Configuration and generation of the "1ClickImage"			
	2.3.4	Restoring a backup created by 1ClickImage	35		
3	Appen	dix	37		
	3.1	Service and Support	37		
	3.2	Links and Literature	38		
	3.3	Change documentation	38		

## 1 Introduction

#### 1.1 Overview

#### **Motivation**

The SIMATIC IPC Image & Partition Creator is a backup and hard disk management tool.

With this software you can:

- Modify systems
- Save systems
- Recover systems

With this tool you can backup complete systems or individual partitions of systems. This prevents you from losing important data.

Further information on the SIMATIC IPC Image & Partition Creator is available at this Link.

#### **Task**

The purpose of this application example is to show you the different ways to back up systems with this tool.

This document shows you the different types of backup. This allows you to choose the appropriate backup type for your system.

#### **Applicative implementation**

With this document, you will receive instructions that describe various types of backup. The focus of this manual is the backup of data on a SIMATIC IPC.

#### Note

You can also use the SIMATIC IPC Image & Partition Creator in conjunction with other computer or server systems, such as a "Field PG" or a server rack. The "SIMATIC IPC Image & Partition Creator" is only approved for use with Siemens hardware in conjunction with Microsoft Windows operating systems.

You are accompanied step by step in creating and restoring the backups and supported by screenshots and hints.

### 1.2 Overview and operation of the backup variants

This section shows you the special features of the different backup variants and backup media that you can create with the "SIMATIC IPC Image & Partition Creator". In this way you can get an overview and choose the suitable backup variant for your application.

#### Boot-capable USB flash drive with "SIMATIC IPC Image & Partition Creator" software

Since certain SIMATIC IPCs do not have a DVD drive by default, it may be necessary to create a bootable USB flash drive. This contains all the standard functions of the "SIMATIC IPC Image & Partition Creator", which are also available when booting from the DVD. You can create the USB flash drive on a PC with a DVD drive.

An advantage of the bootable USB flash drive is that no software has to be installed on the respective SIMATIC IPC to backup or restore data.

In addition, the operating system of the SIMATIC IPC is not started here. This allows you to back up data that may not be accessible to a running operating system.

#### The "Technician USB flash drive"

The "Technician USB flash drive" offers the full functionality of the bootable USB USB flash drive. In addition, it is password protected, so only authorized employees can work with it. The "Technician USB flash drive" can be used to configure, create and restore backups in a clear user interface. Furthermore, it offers the possibility of creating an "end customer USB flash drive" from a backup. Figure 1-1

Several PC-Types Backup-Drive IPC477E Backup IPC477E 1111 Backup/Restore Backup IPC277D IPC277D  $\bigcirc$ Backup IPC847D IPC847D Backup PC-Station Technican USB-FlashDrive PC-Station 

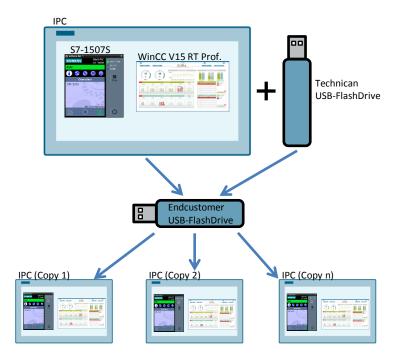
IPC\_Backup\_&\_Restore Entry ID: 109756568, V1.0, 06/2018

#### "End customer USB flash drive"

The "End customer USB flash drive" is an IPC-specific restore USB flash drive. It contains a configurable and customized backup. This backup of a device is locked with article number and/or serial number of the device. This ensures that the backup can only be applied to an IPC type with a defined hardware configuration (article number) or to a single SIMATIC IPC (serial number).

With the "End customer USB flash drive" you can restore the system of a SIMATIC IPC via Plug & Play. For more information, refer to section 2.2.4.

Figure 1-2



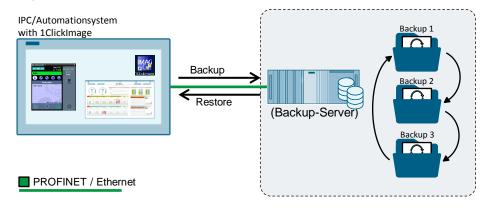
#### 1Clicklmage backup

With this backup procedure, you create a backup of your system during operation. This procedure configures the settings of the backup beforehand. The backup can be:

- Triggered with a click
- Performed cyclically with the Windows Task Scheduler.
- · Performed with limited technical knowledge

To be able to use the "1ClickImage backup", install the tool and the "Paragon hard disk Manager Suite 15" on the respective SIMATIC IPC.

Figure 1-3



## 1.3 Components used

The following hardware and software components were used to create this application example:

#### Software used:

#### Table 1-4

Components	Number	Article number	Note
SIMATIC IPC Image & Partition Creator	1	6ES7648-6AA03-5YA0	V3.5

#### Hardware used:

#### Table 1-5

Components	Number	Article number	Note
SIMATIC IPC 477E	1	6AV7241-7LH44-0FA0	
SIMATIC IPC 277E	1	6AV7882-0CB30-0CA0	

## 2 Engineering

## 2.1 Booting a medium when starting a SIMATIC IPC

This section explains how to boot from a SIMATIC IPC with a bootable medium (USB flash drive). This knowledge is a fundamental requirement for backing up and restoring systems.

#### Note

To open the BIOS settings, a key on the keyboard must be pressed during the boot process.

Depending on the SIMATIC IPC, this requires the connection of a USB keyboard.

Further information on how to access the BIOS settings of a SIMATIC IPC can be found in the device manual of the respective SIMATIC IPC.

- 1. Make sure that the boot option of the IPC for USB flash drive is set to "Enabled".
- 2. Connect a bootable medium with your SIMATIC IPC.
- 3. Restart your computer.
- 4. When the SIMATIC IPC starts up, a screen with the Siemens logo appears. While this screen is visible press the <Esc> button. You will be directed to the BIOS selection menu.
- 5. Use the keyboard to select the Boot Manager. Confirm the <Enter> button. Depending on the SIMATIC IPC, you can also use a mouse. You will be directed to the boot manager.

Figure 2-1



6. Here is an overview of the bootable media.
Use the keyboard to select the medium from which you want to boot. Confirm your selection with the Enter key.

#### Note

The SIMATIC IPC immediately boots from the selected medium after confirmation with the Enter key

For a SIMATIC IPC with the current model of the motherboard, select the EFI Boot option.

Figure 2-2



#### Result

You have successfully booted from the desired medium. The software stored on it is then executed.

# 2.2 Boot-capable USB flash drive with "SIMATIC IPC Image & Partition Creator" software

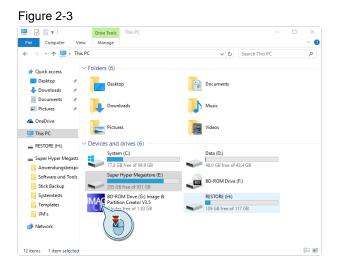
This application example describes how to back up SIMATIC IPCs. Not every SIMATIC IPC is equipped with a DVD drive. Therefore, we recommend creating a bootable USB flash drive with the DVD software.

The specifics of each bootable media are described in section 1.2. Creating a bootable USB flash drive version of the "SIMATIC IPC Image & Partition Creator" software is done after inserting and starting the DVD on your PC. If your IPC does not have a DVD drive you can also create the stick on any PC with DVD drive. With the menu item "Create USB flash drive with Image & Partition Creator" you can create it. (see Figure 2-4)

#### 2.2.1 Create a technician USB flash drive

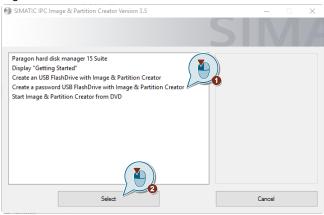
The following describes how to create and use the technician USB flash drive.

1. Start the program "Image & Partition Creator V3.5" from the inserted data medium by double-clicking on the used drive.



In the selection dialog, select the option "Create a password USB flash drive with Image & Partition Creator". (1) Confirm your selection with the "Select" button. (2)

Figure 2-4



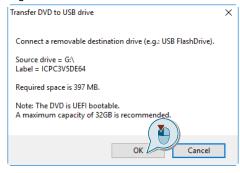
- The next screen will ask you to connect a USB flash drive to the device.Furthermore you will get information about:
- The data source of the installation,
- The name of the generated USB technician flash drive,
- The space required on the USB flash drive and
- The maximum capacity of the bootable USB flash drive is displayed.
   Connect a USB flash drive with enough memory (recommended 32GB) to the computer. Make sure you have no important data left. Confirm with the "OK" button.

#### Note

Based on the FAT32 File System Definition, only USB flash drives up to 32 GB are fully supported. It is also possible to use larger USB flash drives. However, the partition created on this USB flash drive is reduced to the 32GB size supported by FAT32 with the creation of the technician USB flash drive.

For the "technician USB flash drive" you should preferably use a 32 GB USB flash drive if you want to create an "end customer flash drive", because in this case the image has to be stored on it.

Figure 2-5



- 3. The USB flash drive is automatically detected by the software. In the opening dialog you will get information about:
- · The installation source
- The name and the data size
- The target drive and instructions for formatting
- The partitioning of the technician USB flash drive to be created

Check if the target drive matches the target drive you want. Confirm with the "OK" button.

Figure 2-6



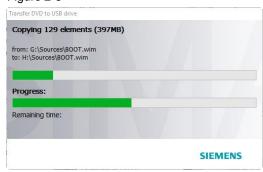
4. Afterwards you will be informed in the following window that all data of the used USB flash drive will be lost due to the formatting. Confirm the information with the "OK" button.

Figure 2-7



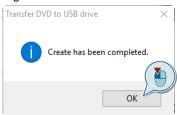
5. The technician USB flash drive is then generated. The progress is displayed in an installation window.

Figure 2-8



6. After the successful creation of the technician USB flash drive, a confirmation window appears. Confirm the information with the "OK" button.

Figure 2-9



#### Result

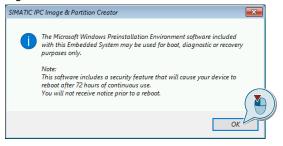
You have successfully created a bootable technician USB flash drive and can perform your backups with it.

#### 2.2.2 Create and restore a backup with the technician USB flash drive

In this tutorial you will be shown how to create a fuse of a SIMATIC IPC477E with a technician USB flash drive.

- Connect the technician USB flash drive with the SIMATIC IPC you want to back up.
- 2. Boot as described in section 2.1 of the technician USB flash drive.
- 3. The "SIMATIC IPC Image & Partition Creator" software starts. Read the notes in the following window and confirm the information with the "OK" button.

Figure 2-10



4. You will be directed to a selection screen. Select the action "Backup and Restore". (1) Confirm your selection with the "Select" button. (2)

Figure 2-11



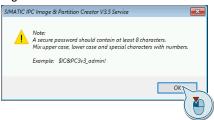
5. The first time you use the technician USB flash drive, you are automatically prompted to give a password. To do this, select the action "Set password". (1) Confirm your selection with the "Select" button. (2)

Figure 2-12



6. A dialog gives you hints for generating a secure password. Confirm the information with the "OK" button.

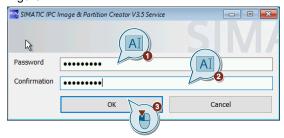
Figure 2-13



7. Assign a password. Confirm this by entering it in the input fields "Password" (1) and "Confirmation" (2).

Confirm the entry with the "OK" button. (3)

Figure 2-14



#### Note

You can change the password in the selection menu of step 11 under the action "Set new password" at any time. For this you need the current password.

8. The new password is confirmed in the following window. Confirm with the "OK" button.

Figure 2-15



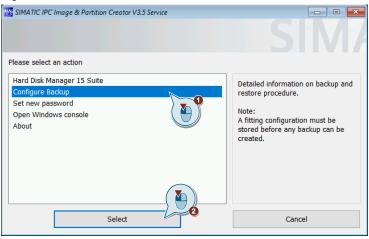
#### Note

Steps 6-10 are relevant only for the first time you use the USB flash drive. If it is used repeatedly, you will be prompted to enter your password after step 5. Confirm this with the "OK" button. After that, you will automatically be taken to the selection screen described in step 11.

9. Connect an external storage medium on which the backup is to be stored to the SIMATIC IPC or, if space permits, use the technician USB flash drive.

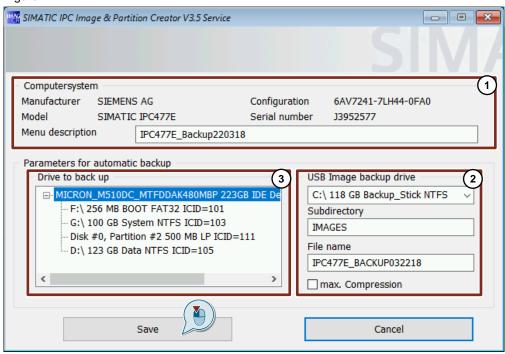
10. In the following selection screen, select the action "Configure Backup". (1) Confirm your selection with the "Select" button. (2)

Figure 2-16



11. You will be redirected to the device-specific backup configuration screen. Set all options to your requirements. There is a more detailed explanation of the various configuration fields in <u>Figure 2-17</u>. Confirm your configuration with the "OK" button.

Figure 2-17



#### Explanation of the configuration screen

#### 1. "Computer system" ("Computer system")

This section provides information about the SIMATIC IPC for which you want to create a backup. The information displayed is the manufacturer, the model name, the configuration number and the serial number of the device.

#### 2. "USB image backup drive"

In this area you can set different things:

- The location of the backup
- The caption of the folder
- The designation of the backup

Furthermore, you have the option of maximizing the compression rate of the files with the "Max. Compression" checkbox, to minimize the required storage space of the backup.

#### 3. "Drive to backup"

In this area you select the partitions to be backed up.

#### Note

When configuring the destination path, please always select the "Technician USB flash drive" if you want to create an "End customer USB flash drive".

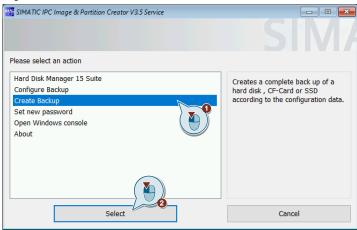
It is not possible to create an "End customer USB flash drive" from another storage medium.

#### Note

A backup with a higher compression rate requires more time to perform.

12. After completing the configuration of the backup, you are returned to the previous action selection screen. After the first configuration of the backup there is another action "Create backup" to choose from. For future backups, you do not need to complete items 10 and 11. Then select the action "Create backup" (1) and confirm with the "OK" button. (2)

Figure 2-18



13. You will be taken to a confirmation screen that shows you the presumable (estimated) size of the backup and the free space from the destination path of the backup. If the required memory is available on the destination path, start the backup process with the "OK" button.

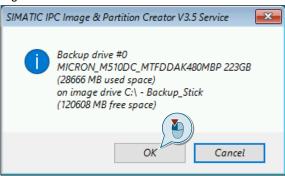
#### Note

If the estimated size of the backup is greater than the free space in the destination path, you can still start the backup.

But there is a risk that the backup cannot be completed then.

The actual size needed depends on how well the data can be compressed. If a higher compression than previously estimated is possible, a backup (despite the fact that the memory is too small) can still be successful.

Figure 2-19



14. You have configured and initiated a backup of your SIMATIC IPC. Use the following backup screen to view backup and history information.

Figure 2-20

```
Approximate archive size will be 18.0 GB
Backup Disk 0 to file: C:/IMAGES/IPC477E_BACKUP032218/IPC477E_BACKUP032218.PBF
Backup Primary partition 0 (disk 0) to file: C:/IMAGES/IPC477E_BACKUP032218/IPC477E_BACKUP032218_0000p.000
Scan volume...
Data writing (buffered)...
Backup Primary partition 1 (disk 0) to file: C:/IMAGES/IPC477E_BACKUP032218/IPC477E_BACKUP032218_0001p.000
Use raw data process ...
Data writing...
Backup Primary partition 2 (disk 0) to file: C:/IMAGES/IPC477E_BACKUP032218/IPC477E_BACKUP032218_0002p.000
Scan volume...
Data writing.
Data writing (buffered)...
41% 00:00:17(elapsed) 00:00:24(to finish) Overall(41% 00:00:16(elapsed))
```

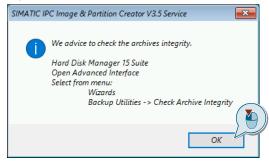
15. After successful creation of the backup, a confirmation window opens. Confirm the information with the "OK" button.

Figure 2-21



16. It is recommended in the next window to check the integrity of the archive. You can do this using the disk archive manager's "Check Archive Integrity" feature. For information, see the Image & Partition Creator manual. Confirm the information with the "OK" button. This will take you back to the action selection screen.

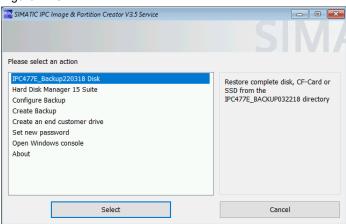
Figure 2-22



#### Result

You have finished backing up your SIMATIC IPC. The backup is located on the destination path of your choice. You can then see the backup with the name you selected in the action screen. You can also select the backup to restore the system of your SIMATIC IPC.

Figure 2-23

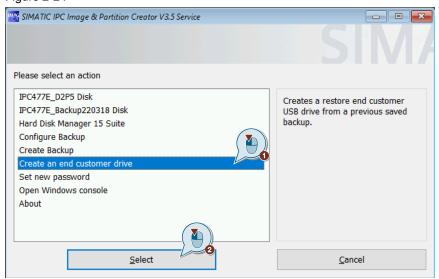


#### 2.2.3 Create an end customer USB flash drive

After creating a backup file, you have the option to create an end customer USB flash drive. You will be guided through the configuration in this section.

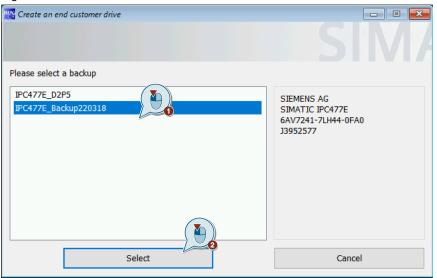
1. In the action selection screen, select the action "Create an end customer drive". (1) Confirm your selection with the "Select" button. (2)

Figure 2-24



 The available backups are displayed. In the right part of the window you can see the device information of the backup file. In the following selection screen select the backup you want to use. (1) Confirm your selection with the "Select" button. (2)

Figure 2-25

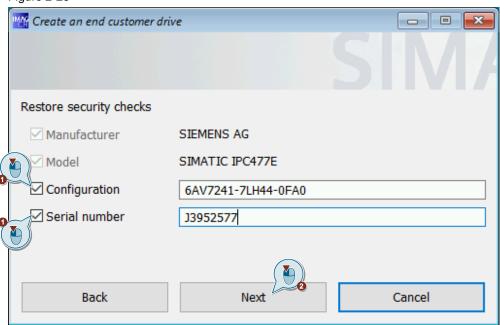


#### Note

Only the backups that are on the destination path selected in the Configure Backup menu are displayed. You can change the destination path at any time as described in the "About the configuration screen" section.

3. In the following screen, you can configure to which SIMATIC IPC or IPC type the end customer USB flash drive should be locked. The manufacturer and model information is static. However, it is possible to lock the backup on the article and serial number. Check the parameters you want. (1) Continue with the "Next" button. (2)

Figure 2-26



#### Note

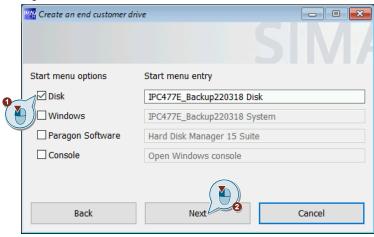
If you have many SIMATIC IPCs with the same article number to which you want to duplicate or restore the system, then only tick the "Configuration" parameter.

4. In the following window you can define the start menu entries for the end customer USB flash drive.

Only the selected entries are available on the end customer USB flash drive. In this way, you can restrict its functionality and for certain scenarios, for example, prevent misuse of the "end customer USB flash drive".

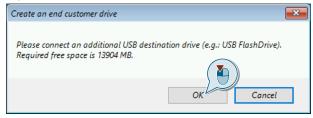
Select the desired start menu entry. (1) Confirm your entry with the "Next" button. (2)

Figure 2-27



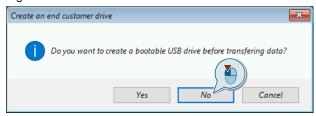
5. You will be notified in the following window to connect another USB flash drive to the device. This USB flash drive must also be the specified size. Connect a USB flash drive to the SIMATIC IPC that you want to use as "end customer USB flash drive". Confirm with the "OK" button.

Figure 2-28



6. The following window asks if you want to make the USB flash drive bootable. If you are already using a bootable USB flash drive, press the "No" button and proceed to point 9. Otherwise select "Yes". You must then repeat all previous steps.

Figure 2-29



7. If you have confirmed with "Yes", you will be informed once again that all data on the drive will be deleted. Confirm this with the "OK" button.

Figure 2-30



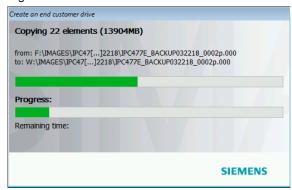
8. The end customer USB flash drive will be prepared.

Figure 2-31



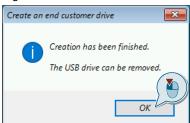
Your end customer USB flash drive is then generated. You can see the progress in the installation window.

Figure 2-32



9. On the following screen, confirm the information with the "OK" button.

Figure 2-33

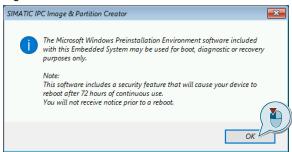


## 2.2.4 Restoring a device-specific backup to the end customer USB flash drive

This manual explains how to restore a SIMATIC IPC from an end customer USB flash drive.

- For this, carry out the steps in the instructions in section <u>2.1</u>.
   The bootable medium in this case is the "end customer USB flash drive".
- 2. After successful booting of the medium, an information window of the SIMATIC IPC Image & Partition Creator appears for Windows PE. Confirm with the "OK" button for information.

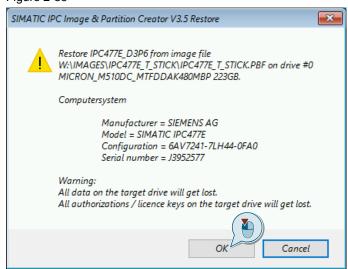
Figure 2-34



- 3. The following message window displays information about the recovery process you have started. The displayed texts contain information regarding:
- · Backups, which are restored
- The computer system on which the recovery is performed
- The information that all data, authorizations and licenses are lost on the target system

Continue with the "OK" button.

Figure 2-35



#### Note

If the data of the SIMATIC IPC (article number and/or serial number) do not match the parameters of the backup, an error message is displayed. Then it continues with point 6 of this guide.

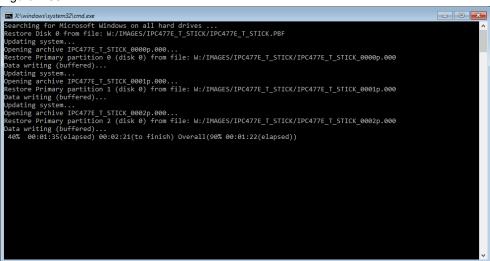
SIMATIC IPC Image & Partition Creator V3.5 Restore

Error:
This computer system
SIEMENS AG SIMATIC IPC477E 6AV7241-7LH44-0FA0 S/N J3952577
does not match with the backup system
SIEMENS AG SIMATIC IPC277E 6AV7282-0CB30-0CA0 S/N H6956516

Reason: Model
Program execution will be aborted.

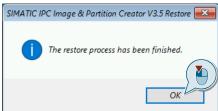
4. The restoration is performed. This is followed by an output window where you can view information about the current restoration process. Wait until the restoration is completed.

Figure 2-36



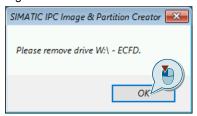
5. When the recovery process completes successfully, an information window appears. Confirm the acknowledgment with the "OK" button.

Figure 2-37



6. This is followed by an information window in which you are asked to remove the "end customer USB flash drive" from the SIMATIC IPC. Remove the "End customer USB Flash Drive" from the SIMATIC IPC and end the restore by clicking on the "OK" button.

Figure 2-38



#### Result

You have successfully restored your SIMATIC IPC.

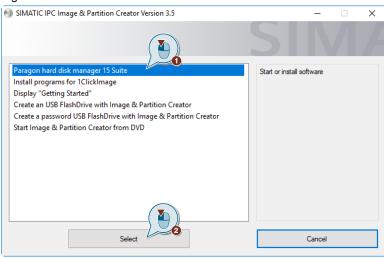
### 2.3 Create and configure a "1ClickImage" backup

To install the 1ClickImage application, the Paragon Hard Disk Manager 15 Suaite must be installed. Install this on your SIMATIC IPC before continuing with section 2.3.2.

#### 2.3.1 Installing the Paragon Hard Disk Manager 15 Suite

Start the "SIMATIC Image & Partition Creator" from your DVD. If your SIMATIC IPC does not have a DVD drive, you can move the data to a USB flash drive using another PC and start the program from there. Select the "Paragon hard disk manager 15 Suite" in the selection screen. (1) Confirm your selection with the "Select" button. (2)

Figure 2-39



 This will open the Paragon Disk Manager 15 Suite. Click on the "Install Paragon Disk Manager 15 Suite" action and follow the installation instructions.

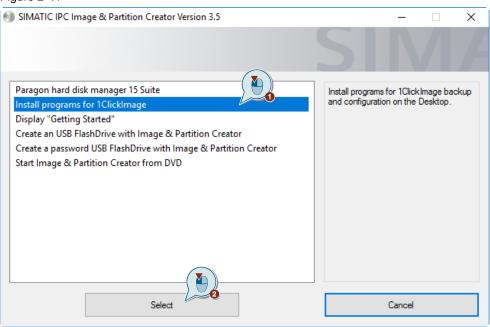
Figure 2-40



#### 2.3.2 Installation of n 1ClickImage

Install 1Clickimage on your SIMATIC IPC so that you can configure and execute it. Start the "SIMATIC Image & Partition Creator" from your DVD. Select "Install programs for 1ClickImage" in the selection screen. (1) Confirm your selection with the "Select" button. (2) Follow the installation instructions.

Figure 2-41



#### 2.3.3 Configuration and generation of the "1ClickImage"

1ClickImage needs certain parameters to create an image.

The following instructions are an example of how to perform this configuration and how to perform a backup. The system partition of a SIMATIC IPC277E is selected for the backup. The storage location is an external hard disk connected to the SIMATIC IPC via a USB port.

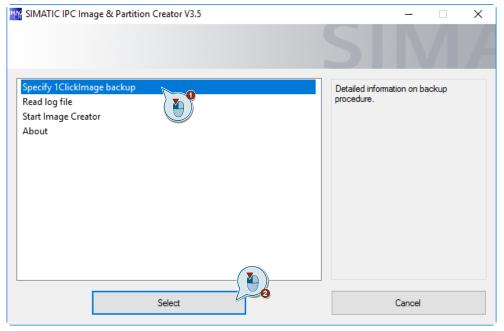
1. Double-click on the desktop icon "Configuration". If no desktop icons were created, you will find the links to the applications in the Windows start menu.

Figure 2-42



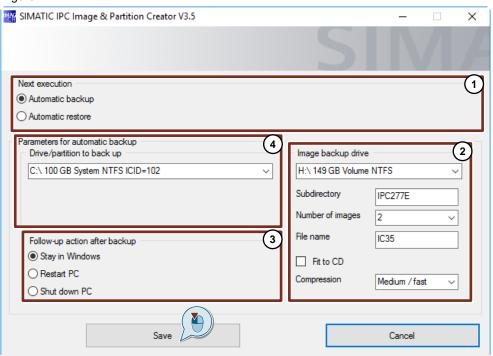
2. In the "SIMATIC IPC Image & Partition Creator V3.5" window that opens, select the option "Specify 1ClickImage backup" (1). Confirm the selection with the "Select" button. (2)

Figure 2-43



3. Set the backup parameters you want. The four configuration areas are explained in more detail below.

Figure 2-44



#### Configuration areas

#### 1. Next task

In this area it can be decided whether a backup should be created or restored.

#### 2. Image backup drive

This window specifies the storage location for the image. Furthermore, the name of the subdirectory and the name of the backup file are determined.

#### 3. Follow-up action after backup

This area defines what action the computer should take after the backup is completed.

#### 4. Parameters of the automatic backup

This area is used to set which drive to back up. It is also possible to select external media.

The "number of images" describes how many images can be saved at the same time. They are numbered in the subdirectory. When the maximum number of backups is reached, the oldest backup is overwritten.

The "Fit to CD" checkbox splits the backup into files to the size of a CD.

Selecting compression sets how much the backup size should be compressed. High compression prolongs the duration of image creation.

- 4. After you have set all the configurations to your liking, confirm them with the "Save" button. This will close the configuration window.
- 5. Double-click the "1ClickImage" desktop icon to create a backup of the parameters you have configured.

Figure 2-45



6. You have started the generation of a 1ClickImage according to your requirements. The command window of Windows opens, where the details and progress of the backup can be viewed. After completion of the backup process, this window closes automatically.

Figure 2-46

```
Windows Boot Loader

identifier {current}
device partition=C:
path Windows\system32\winload.exe
description Windows\system32\winload.exe
description
descripti
```

#### Result

You have successfully created a 1ClickImage according to your requirements. The backup is located in the destination path of your choice.

#### 2.3.4 Restoring a backup created by 1ClickImage

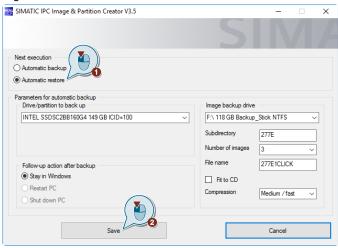
This manual describes how to restore your SIMATIC IPC using 1ClickImage.

- 1. Open the configuration screen as described in section 2.3.3.
- 2. In configuration area 1 "Next execution", change the settings to "Automatic restore". (1) Save the setting. (2)

#### Note

Make sure the correct destination path of the backup is set in the "Image Backup drive" configuration area.

Figure 2-47



#### Note

The option in the "Next execution" configuration field is automatically switched back to "automatic backup" during the restore.

3. Double-click 1ClickImage.exe on the desktop.

Figure 2-48



#### Note

If there is no current backup in the set path, the error number -1 is output in a window.

4. This is followed by various output screens and your computer is restarted during the recovery process.

#### Result

The last generated 1ClickImage is automatically restored from the specified path.

## 3 Appendix

### 3.1 Service and Support

#### **Industry Online Support**

Do you have any questions or need assistance?

Siemens Industry Online Support offers round the clock access to our entire service and support know-how and portfolio.

The Industry Online Support is the central address for information about our products, solutions and services.

Product information, manuals, downloads, FAQs, application examples and videos – all information is accessible with just a few mouse clicks: https://support.industry.siemens.com

#### **Technical Support**

The Technical Support of Siemens Industry provides you fast and competent support regarding all technical queries with numerous tailor-made offers – ranging from basic support to individual support contracts. Please send queries to Technical Support via Web form:

www.siemens.com/industry/supportrequest

#### SITRAIN - Training for Industry

We support you with our globally available training courses for industry with practical experience, innovative learning methods and a concept that's tailored to the customer's specific needs.

For more information on our offered trainings and courses, as well as their locations and dates, refer to our web page: <a href="https://www.siemens.com/sitrain">www.siemens.com/sitrain</a>

#### Service offer

Our range of services includes the following:

- Plant data services
- Spare parts services
- Repair services
- · On-site and maintenance services
- Retrofitting and modernization services
- Service programs and contracts

You can find detailed information on our range of services in the service catalog web page:

https://support.industry.siemens.com/cs/sc

#### **Industry Online Support app**

You will receive optimum support wherever you are with the "Siemens Industry Online Support" app. The app is available for Apple iOS, Android and Windows Phone:

https://support.industry.siemens.com/cs/ww/en/sc/2067

## 3.2 Links and Literature

Table 3-1

No.	Торіс		
\1\	Siemens Industry Online Support <a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a>		
\2\	Link to the Entry page for the application example https://support.industry.siemens.com/cs/ww/en/view/109756568		
/3/	BIOS menu <a href="https://support.industry.siemens.com/cs/mdm/109749206?c=90926754187&amp;lc=en-DE">https://support.industry.siemens.com/cs/mdm/109749206?c=90926754187&amp;lc=en-DE</a>		
\4\	Delivery approval of the SIMATIC IPC Image & Partition Creator V3.5 <a href="https://support.industry.siemens.com/cs/ww/en/view/109740914">https://support.industry.siemens.com/cs/ww/en/view/109740914</a>		

## 3.3 Change documentation

Table 3-2

Version	Date	Change
V1.0	MM/YYYY	First edition