Backups using Macrium Reflect

1. You may have seen the Pass IT On Tutorial 6g "Backups and why you should – using Windows 10 and Google Drive". However there are other ways to Macrium Reflect 7

backup, one of which uses a free App, Macrium Reflect, which we will consider here.

- 2. This corresponds to the **second** sort of **backup** referred to in 6g which is a copy saved on a separate medium e.g. an External Hard Drive.
- 3. Macrium Reflect Free creates Full and Differential **backup** images but to selectively back up individual files and folders, and also for Incremental **backups**, you will need the Premium version.
- Firstly connect a device to save the **backups** from your computer. This can be a Hard Disk, a Solid State Drive (SSD) or alternatively a Memory Stick. Make sure that this has enough storage to cope with what you want to **backup**.



6h

page 1 of 13





5. Type https://www.macrium.com/reflectfree into your

browser to download Macrium Reflect and then left-click on "Home Use". You are given the option of entering your email address to register but you can skip this by leftclicking on "Continue".

You can then save the file on your computer.

Find the file "ReflectDLHF.exe" in your Downloads Folder and double-click on it.

You will be presented with a window "Macrium Reflect Download Agent" where you leftclick on "Download" to get the App.

You will then have to agree to the App making changes.

Then follow the instructions on the screen to proceed to installation.



ALCCC III	stallation Package
L	Select Macrium Reflect software to download
.~	Free ~
ownloa	d Location & Options
¢	The most appropriate install package will be downloaded for your computer. Click Options to select additional components for subsequent offline installs.
	Save to folder C:\Users\Admin 3\Downloads
	Run installer directly after downloading Options
egistra	ion Information
	Name N/A
2 2	Company Name N/A
	Pause Help Dowpload Close
Ma	rrium Reflect Installer
	Macrium Reflect 7
	Version: 2.2.4473 (64-bit) Free Edition

Next Cancel

 $\ensuremath{\mathbb{C}}$ Pass IT On Scottish Charity Number: SC 033560 www.passitoncomputers.co.uk info@passitoncomputers.co.uk Charities and non-profit organisations may copy and distribute this tutorial freely but please acknowledge our copyright. A wee donation would be very welcome from anyone richer! Version 01 – 11/10/19

Left-click on "Next" on the Welcome screen.

🖟 Macrium Reflect Free Edition v7.2.4473 64 bit Setup Macrium Reflect 7 Welcome to the Macrium Reflect Free Edition Setup Wizard The Setup Wizard will install Reflect Free Edition v7.2.4473 64 bit on your computer. Click Next to continue or Cancel to exit the Setup Wizard. < Back Next Cancel H Macrium Reflect Free Edition v7.2.4473 64 bitLicense Agreemer End-User License Agreement Reflect 7 Please read the following license agreement carefully PLEASE READ THIS LICENSE CAREFULLY. By clicking on the "Agree" button, you acknowledge and agree to be bound by its terms and conditions in relation to your use of Macrium Reflect® and the Documents. If you do not agree to its terms and conditions, or are unsure about their effect, click on the "Cancel" button. YOUR ATTENTION IS DRAWN TO THE "LIABILITY" SECTION BELOW. Macrium Reflect® is intended to be used to copy software data for lawful back-up purposes. You should ensure your third party software licenses permit such copying. I accept the terms in the License Agreement I do not accept the terms in the License Agree < Back Next > Cancel Hacrium Reflect Free Edition v7.2.4473 64 bit Setup License kev Reflect 7 Please enter your license key 55-QVX8-JMF1-WH1D-E3YE-ZYA8-VWHWMFH Your Macrium Reflect License key What Free edition licence do you require? Home Commercial < Back Next > Cancel Macrium Reflect Free Edition v7.2.4473 64 bit Setup Registratio Reflect 7 Register your free copy of Macrium Reflect Register this installation of Macrium Reflect YA Email address Get My Code on code, dick 'Get My Code ur details will only be used in regard to Macrium products u can unsubscribe at any time. For details visit ww.macrium.com/privacy

PTO

6h

page 3 of 13

© Pass IT On Scottish Charity Number: SC 033560 www.passitoncomputers.co.uk info@passitoncomputers.co.uk Charities and non-profit organisations may copy and distribute this tutorial freely but please acknowledge our copyright. Version 01 - 11/10/19 A wee donation would be very welcome from anyone richer!

< Back Next > Cancel

and then left-click on the button to accept the licence conditions and left-click on "Next".

- 6. You will then have to enter a "License key" number, but if you haven't registered the "License key" should be already entered and you select the button "Home". Then leftclick on "Next".
- 7. However if you want to register, left-click on "Register this installation of Macrium Reflect ?" and this number can be obtained from the next screen by filling in your email address and then leftclick on "Get My Code".

A message saying that an email has been sent with instructions appears. Left-click on "OK". You will either get a

link or an email with the code. Enter this with your email address and then left-click on "Next" and select the button "Home".

Then left-click on "Next" on the Custom Setup screen.

8. Then left-click on "Install".

During installation you will get a screen showing progress

then once it has finished installing left-click on "Finish".



Backups using Macrium Reflect

page 4 of 13



9. If you leave the "Launch now" box ticked, after seeing an analysing screen, you will get the operational screen with "Backup" and "Create a backup" menus selected, showing the volumes (i.e. drives) and files on the system disk. Your disk, where you want your **backups** to occur, will show as well.

Macrium Reflect - Free Edition for both home and comm	nercial use -	v7.2.4473							_	Ø	×
File View Backup Restore Other Tasks Help											
🤣 🐎 🕄 🌐 🕄											
Backup Restore Log											
▲ Backup Tasks	Create a b	ackup Backup Definition Files	VBScript Files	PowerShell Files	MS-DOS Batch Files	Scheduled Backups					
Image selected disks on this computer	() <u>Refr</u>	esh									
Create an image of the partition(s) required to backup and restore Windows	R	MBR Disk 1 [B6D5BBF0] - WDC WD500	DAAKX-08ANVA0	20.01H20 <465.76 GB>							
Create a File and Folder backup	•	1 - System Reserved (None) NTFS Active		2 - (C:) NTFS Primary				3 - (None) NTFS Primary			
Other Tasks				(2.02.02				(22.0.1/2			
Details		36.5 MB 500.0 MB	✓	62.02 GB 464.76 GB			✓	437.0 MB 518.0 MB		✓	
System Reserved		Actions 🔻									
File System: NTFS		Clone this disk	Income all the d								_
Free Space: 463.5 MB	<u>R</u>	Clone this disk	Image this di	<u>sk</u>							
Total Size: 500.0 MB	R	MBR Disk 2 [92A73812] - JMicron Tech	0203 <9	31.51 GB>							
Start Sector: 2,048 End Sector: 1,026,047	.~	1 - Backup hdd (D:)									
End Sector: 1,020,047	•	NTFS Primary									
	6	72,49 GB									
	63	931.51 GB								◄	

10. If you ever get stuck then select Help from the Menu and then the appropriate paragraph such as Introduction to Macrium Reflect.

Hel	p
0	Help
	Release Notes
	Configure Update Check
۶	Update license key
6	Buy Now
	About Macrium Reflect

11. Left-click on "Image this disk..." which is accessing the



ΡΤΟ

Backups using Macrium Reflect

page 5 of 13

12. Then left-click **?** on the Browse Select Source Drive(s) and Image Destination Source button MBR Disk 1 [B6D5BBF0] - WDC WD5000AAKX-08ANVA0 20.01H20 <465.76 GB; 2 - (C:) NTFS Primary 3 - (None) NTFS Primar 📒 1 - System Reserved (None) ✓ NTFS Active 36.5 MB 437.0 MB 518.0 MB • • Total Selected: 60.82 GB Destination Folder <u>~</u>... Alternative locations O CD/DVD Burne Use the Image ID as the file name. (Recommended) {IMAGEID} Backup filename: {IMAGEID}-00-00.mrimg Advanced Options Help Next > Cancel Finish to choose the Destination folder on your Browse For Folde × Select location for image file backup disk and then left-click on "OK" to 📃 Desktop Documents select Downloads J Music > E Pictures 🚪 Videos 🏣 Local Disk (C:) 🕳 Backup hdd (D:) w subfolders, click the symbol next to a folde OK Cancel Make New Folder

and then on "Next".

13. You can then select a Template for your Backup Plan or

creat Left-Dowr see v availa

e your own. click on the n arrow to	Edit the Plan for this Backup 1. Select a Template for your Backup Plan None
م الح م ال	2. Add/Edit Schedules
vhat's	Backup Type Schedule
able.	
	Add Schedule 🔻 📑 Edit Schedule 📓 Delete Schedule
	3. Define Retention Rules
	Apply retention rules to matching backup sets in the target folder \vee
	Full Keep 12 🙀 Backups 🗸
	Differential Keep 4 Differential Keep 4
	Incremental Keep 10 Backups
	Create a Synthetic Full if possible
	Run the purge before backup.
	Purge the oldest backup set(s) if less than 5 GB on the target volume (minimum 1GB)
	Help < Back Next > Cancel Finish

Backups using Macrium Reflect

page 6 of 13

Choose e.g. "Differential Backup Set" by left-clicking on it.

Note that "Grandfather, Father, Son" is not available in the Free edition of Reflect.

14. You then get the option to change the schedule shown if it's not suitable for you. Left-click on "Edit the Schedule". Note that you can't select or change the Incremental Backup Set in the Free edition, so let's assume it can be removed



for our purposes by left-clicking on the Incremental button to remove if it's already selected.

15. You will need to select what you wish to **backup** and also when you want this to happen. You can select the whole disk or individual folders and files.



Backups using Macrium Reflect

page 7 of 13

 $[\]ensuremath{\mathbb{C}}$ Pass IT On Scottish Charity Number: SC 033560 www.passitoncomputers.co.uk info@passitoncomputers.co.uk Charities and non-profit organisations may copy and distribute this tutorial freely but please acknowledge our copyright. A wee donation would be very welcome from anyone richer! Version 01 – 11/10/19

16. An Imaging Summary is shown and if you are happy then left-click on "Finish".



Run this backup now

My Backup

Save backup and schedules as an XML Backup Definition File You can run this backup at any time by double dicking the saved XML file. Enter a name for this backup definition.

C:\Users\Admin 3\Documents\Reflect\My Backup.xm

Help OK Cancel

....

17. Now you are given Backup Save Options. Select what you want to do and left-click on "OK" to start the **backup**.

A series of screens shows progress and "Time remaining" depending on the Transfer Rate. It goes through various stages.

There are buttons to select Hide, Cancel or Pause.

File System: Label:	NTFS	
Size: Free: Used:	518.0 MB 81.0 MB 437.0 MB	
Label: Size: Free:		
Hard Disk: Drive Letter: File System:	1 N/A NTFS	
Free: Used: Operation 3 of 3	406.82 GB 57.95 GB	
File System: Label: Size:	NTFS 464.76 GB 406.82 GB	
Operation 2 of 3 Hard Disk: Drive Letter:	1 C	
Label: Size: Free: Used:	System Reserved 500.0 MB 463.5 MB 36.5 MB	





page 8 of 13

If this Icon is not present then it can be accessed by the following process. Press the 'Hot Key' combination Ctr+Alt+M and a slightly different Icon will appear in the Task Bar S. Left-click on the Icon to show the Imaging Summary screen. If the smaller Icon appears at the bottom right then right-click on it to Show or Hide the Status





6h

page 9 of 13

18. If the **backup** is successful you will get a message then left-click on "OK"

and then on "Close".

High Priority On completion No Shutdown V Occasionally you may get an error message if the backup can't be completed.

C:\Users\Admin 3\Documents\Reflect\My Backup.xn

19. If you want to see what is stored then left-click on "Log"

and you will see a list of Images with the details of the Image ID in the screen to the right. The green tick indicates a successful backup.

A red cross shows if you are unsuccessful, with a note of why.

info@passitoncomputers.co.uk © Pass IT On Scottish Charity Number: SC 033560 www.passitoncomputers.co.uk Charities and non-profit organisations may copy and distribute this tutorial freely but please acknowledge our copyright. Version 01 - 11/10/19 A wee donation would be very welcome from anyone richer!

Backup Restore Log All Logs 🖳 🔛 🔜 08/11/2019 0:59:43 SS Log nage Restore

File





Ali L	ogs	
	😡 Im	age
		15/11/2019
-		09:30:47
	÷.	08/11/2019

Macrium Reflect - Free Edit

View Backup Rest



Image Completed Successfully in 00:27:23

📐 ОК

20. Now the whole purpose of making a **backup** is that, if you have problem e.g. with your hard disk, then you will be able to restore your files, maybe to a new hard disk, e.g. if the old one has been damaged, from the **backup**.

To do this left-click on "Restore"

then on "Restore Image". You may have to "Browse

for an image file" first to find it on your **backup** disk.

You will then be given the opportunity to select the image.

You will want to **restore** the image shown as the "Source", i.e. the **backup**, to the "Destination" which is your computer disk.

To do this untick 1 and 3 and leave 2 - (C:) ticked and then left-click on "Copy selected partitions"

-MBR Disk 1 [Br (A0 20.01H20 #465.76 GB R 2 - (C:) NTES Primar 1 - System Reserved (None) 57.95 GB 36.5 MB ns when I click 'Next' Help < Back Next > Cancel Finish Drag Partitions to the Destination Disk or click 'Copy 08/11/2019 10:59 D:\D78F9DEF0CB96B5C-00-00.mrime 8 R 2 - (C:) NTF5 Primary

Copy selected par

IV AO 20.01

Res

2 - (C:) NTFS Primar

60.75 GB

51.25 GB

Undo

PTO

Scottish Charity Number: SC 033560 © Pass IT On www.passitoncomputers.co.uk info@passitoncomputers.co.uk Charities and non-profit organisations may copy and distribute this tutorial freely but please acknowledge our copyright. Version 01 - 11/10/19 A wee donation would be very welcome from anyone richer!

1

Local disk

1 - Syste

36.8 MB X Delete Existing n

R IBR Disk 1 [B





Drag Partitions to the Destination Disk or click 'Copy selected partition:



Browse Image < Restoration

Ot

✓ 431.7 MI 518.0 MI

3 - (Non NTFS Pr

Help < Back Next > Cancel

Select a different target dis

Copy selected partitions when I dick 'Next'

and then on "Next".

Drag Partitions to the Destination Disk or click 'Copy selected partition 9 R MBR Disk 1 [E 1 - S 2 - (C:) NTFS Prima 3 - (Non NTES Pr 51.25 G 431.7 M 32.1 MB C Unde Copy s 므 R 2 - (Ci NTFS Prima 36.8 MB 500.0 MI 51.25 GB Re Re Help < Next >

You will be presented with a summary of what will be restored. If this is OK leftclick on "Finish" and the **restore** proceeds. When it has finished you can check that it was successful by selecting "Log" as described

2	Image File: Image ID: Date: Time: Image Type:	0-0797890EPC059685-0-00.mm/mg D7890EPC05868C 08 November 2019 10.59 Full
	Source Disk: Geometry: BPB: Destination Disk:	MBR Duk 1 (B6058BF0) - WDC WD5000AAKX 08ANVA0 20.01H20 <465.76 GB> 60801K33512 0 /0/0 MBR Duk 1 (B6058BF0) - WDC WD5000AAKX-08ANVA0 20.01H20 <465.76 GB>
	Verify: Delta: SSD Trim:	N N Y
Opera	tion 1 of 1 Bestore Partition:	2 - <no name=""> (C.)</no>
		NTFS 51.25 GB / 464.76 GB
	Drive Letter Start Sector:	C: 1.026.048
	End Sector:	975,705,083
	Partition Type:	Primary

above. Then check that your files have been restored that you thought you'd lost!

21. Each day when Macrium Reflect is due to do a **backup** a window pops up saying that it's going to happen and giving you the opportunity to postpone. If you want to postpone, e.g. to



avoid slowing down what you are doing, left-click on the down arrow and choose the extension you wish.

22. When the **backup** finally proceeds you can access a

window showing progress by double-clicking on the Macrium Reflect symbol at the bottom right of the screen as described above. This also appears during an image **restore** as in the picture here.

Image ID: Date:	D78F9DEF0CB9685C 08 November 2019	1
Time:	10.59	
Image Type:	Full	
Source Dak: Geometry	MBR Disk 1 [B6D58BF0] - WDC WD5000AAKX-08ANVA0 20.01H20 <465.76 GB> 60801\63\512	
BPR .	60801\63\512 0\0\0	
Destination Disk:	MBR Disk 1 [B6D5BBF0] - WDC WD5000AAKX-08ANVA0 20.01H20 <465.76 GB>	
Verify:	N	
Deta:	N	
SSD Trim:	Y	
Operation 1 of 1		
Restore Partition:	2 - <no name="">(C:) NTFS 51 25 GB / 464 76 GB</no>	
Drive Letter	C;	
Start Sector:	1.026.048	
End Sector:	975,705.083	
Partition Type:	Primary	
Processing:	D78F9DEF0CB96B5C-00-00 mrimg	
verall Progress: 23 %		
rrent Progress: 23 %		

23. From time to time you may get a message either through Windows 10 or when you open Macrium Reflect (when it will show details) that Macrium Reflect needs updating. If so, follow the instructions on the screen.



So we've covered the basis of **backups** using Macrium Reflect. There are lots of options available but here we have described only the basics.

Let's hope that you never have to use the **restore** facility but if you regularly **backup** you will be prepared if you have to.



Backups using Macrium Reflect

page 13 of 13