Recuperar Particións

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É posible que por distintas causas se perda a información da táboa de particións dun disco duro. Pero non todo está perdido, a información posiblemente poida ser recuperada.

Neste caso vaise simular un exemplo no que se perdeu a información da táboa de particións dun disco. Para iso, borrarase a partición dun disco e posteriormente mostrarase como recuperala.

Para ver a táboa de particións dun disco duro pode utilizarse calquera programa de particionamento, como por exemplo **parted** e **ranish partition manager**:

• Táboa de particións vista dende o programa de particionamento Parted.

```
root@sysresccd /root % parted /dev/sda
GNU Parted 1.8.8
Using /dev/sda
Welcome to GNU Parted! Type 'help' to view a list of commands.
(parted) print
Model: ATA VBOX HARDDISK (scsi)
Disk /dev/sda: 12.9GB
Sector size (logical/physical): 512B/512B
Partition Table: msdos
Number
       Start
                        Size
                End
                                Type
                                         File system
                                                      Flags
               12.9GB 12.9GB
       32.3kB
1
                                primary
                                         ntfs
                                                       boot
(parted) zsh: quit
                         parted /dev/sda
root@sysresccd /root %
```

• Táboa de particións vista dende o programa de particionamento Ranish Partition Manager:

Ranish Partition Manager	Versio	on 2.4	14 (be	eta) by	Muthu	ı Jun	e 09, 2002
Hard Disk 1 12,288 Mbytes Using LBA	[1,566 c	ylind	lers	× 255 I	heads	× 63	sectors]
File	S	starti	ina	1	Ending	r	Partition
# Type Row System Type	Cyl	Head	Sect	Cyl	Head	Sect	Size [KB]
0 MBR Master Boot Record	0	0	1	Θ	0	1	Θ
1 Pri Unused	Θ	Θ	2	Θ	Θ	63	31
2 *Pri 1 Windows NT NTFS	Θ	1	1	1,565	254	63	12,578,863
3 Pri Unused	1,566	Θ	1	1,566	127	33	4,017
4 Unused	Θ	Θ	Θ	Θ	Θ	Θ	Θ
5 Unused	Θ	Θ	Θ	Θ	Θ	Θ	Θ
6 Unused	Θ	Θ	Θ	Θ	Θ	Θ	Θ
7 Unused	Θ	Θ	0	Θ	Θ	Θ	Θ
B - Boot flag on∕off - MBR	INS - se	lect	file	system	DEI	L - cl	ear record
# Partition Size 1*NTFS 12,284 Thi	is is unsu	pport	ed f	ile syst	tem.	1201	
Z Unused O No	additiona	il det	tails	are ava	ailabi	le.	
3 Unused 0							
4 Unused 0	- the second						700 0
	= F3 Undo	= F4	Mode	= F5 D	isk =		ESC Quit =

Seguindo traballando co Ranish Partition Manager, selecciónase a partición existente e púlsase a tecla Supr (Del).

Ranish Part	tition Manager	Versio	on 2.4	14 (be	eta) by	Muthu	Jun	e 09, 2002		
Hard Disk Using LBA	1 12,288 Mbyt	es [1,566 d	cylind	lers	× 255 I	heads	× 63	sectors]		
	File		Start:	ina		Ending		Partition		
# Type Row	System Type	Cyl	Head	Sect	Cyl	Head	Sect	Size [KB]		
O MBR Ma	aster Boot Reco	rd O	0	1	Θ	Θ	1	Θ		
1 Pri U	nused	Θ	Θ	2	1,566	127	33	12,582,911		
2 U1	nused	Θ	Θ	Θ	Θ	Θ	Θ	Θ		
3 Ui	nused	Θ	Θ	Θ	Θ	Θ	Θ	Θ		
4 Ui	nused	Θ	Θ	Θ	Θ	Θ	Θ	Θ		
5 Ui	nused	Θ	Θ	Θ	Θ	Θ	Θ	Θ		
6 Սո	nused	Θ	Θ	Θ	Θ	Θ	Θ	Θ		
7 Ui	nused	Θ	Θ	Θ	Θ	Θ	Θ	Θ		
- MBR	- Start wizard	INS - se	elect	file	system	DEL	- cl	ear record		
# Partition 1 Unused	# Partition Size 1 Unused 0 Press ENTER to start Partitioning Wizard.									
2 Unused	2 Unused 0 which will guide you through the creation									
3 Unused	3 Unused 0 of new partitions.									
4 Unused	Θ									
🖵 F1 Help =	F2 Sav	e = F3 Undo	= F4	Mode	= F5 D	isk —		ESC Quit =		

A continuación hai que pulsar a tecla F2 (Save) para gardar os cambios no MBR e pulsar a tecla Esc para saír do programa.

	Ranis	h Pa	rtition	Manager		Versio	on 2.4	44 (b	eta) by	Muth	u Jun	e 09, 2002
	Hard I Using	Disk LBA	1 12,	288 Mbyt	es [1,566 c	:ylin	ders	× 255	heads	× 63	sectors]
	File					S	Start	ina		Ending	Partition	
	# Type Row System Type				Cyl	Head	Sect	Cyl	Head	Sect	Size [KB]	
	O MB	R I	Master H	loot Reco	rd	Θ	0	1	Θ	Θ	1	Θ
	1 Pr	i i	Unused			0	0	2	1,566	127	33	12,582,911
	2		Unused			Θ	0	0	Θ	Θ	Θ	Θ
	3		Unused			Θ	0	0	Θ	Θ	Θ	Θ
	4		Unused			Θ	Θ	0	Θ	Θ	Θ	Θ
	5		Unused			Θ	Θ	Θ	Θ	Θ	Θ	Θ
	6		Unused			Θ	Θ	Θ	Θ	Θ	Θ	Θ
	7		Unused			Θ	Θ	Θ	Θ	0	Θ	Θ
	MBR —	Part	ition ta	ble was	saved	to har	d di	sk.				
#	Parti	tion	Size									
1	Unuse	d	Θ		Press	ENTER	to s	tart	Partiti	oning	Wizar	d,
2	Unuse	d	Θ		which	will g	fuide	you	through	the o	creati	on
3	Unuse	d	Θ		of ne	w parti	tion	s .				
4	Unuse	d	Θ									
	— F1	Help		= F2 Sav	e = F	3 Undo	= F4	Mode	= F5 D	isk =		ESC Quit =

Unha vez eliminada a partición, mostraranse a continuación os pasos necesarios para recuperar unha partición borrada.

Recuperar unha partición utilizando testdisk

Neste caso, para recuperar a partición utilizarase o programa testdisk.

Unha vez iniciado este programa, seleccionarase a opción Create para gardar un arquivo de rexistro:

TestDisk 6.10, Data Recovery Utility, July 2008 Christophe GRENIER {grenier@cgsecurity.org> http://www.cgsecurity.org TestDisk is a free data recovery software designed to help recover lost partitions and/or make non-booting disks bootable again when these symptoms are caused by faulty software, certain types of viruses or human error. It can also be used to repair some filesystem errors. Information gathered during TestDisk use can be recorded for later review. If you choose to create the text file, testdisk.log, it will contain TestDisk options, technical information and various outputs; including any folder/file names TestDisk was used to find and list onscreen. Use arrow keys to select, then press Enter key: I Create 1 Create a new log file I Append 1 Append information to log file I No Log 1 Don't record anything

A continuación hai que seleccionar o disco duro co cal se quere traballar. Neste caso só hai un. Pulsar na opción **Proceed** para poder traballar co disco duro elixido.

TestDisk 6.10, Data Recovery Utility, July 2008 Christophe GRENIER <grenier@cgsecurity.org> http://www.cgsecurity.org TestDisk is free software, and comes with ABSOLUTELY NO WARRANTY. Select a media (use Arrow keys, then press Enter): Disk 80 - 12 GB / 12 GiB

[Proceed] [Quit]

Note: Disk capacity must be correctly detected for a successful recovery. If a disk listed above has incorrect size, check HD jumper settings, BIOS detection, and install the latest OS patches and disk drivers. Elixir o tipo de táboa de particións coa que se quere traballar para intentar recuperar particións. Usualmente soe ser a primeira opción: Intel.

```
TestDisk 6.10, Data Recovery Utility, July 2008
Christophe GRENIER <grenier@cgsecurity.org>
http://www.cgsecurity.org
Disk 80 - 12 GB / 12 GiB
Please select the partition table type, press Enter when done.
           Intel/PC partition
[Intel
       ]
          EFI GPT partition map (Mac i386, some x86_64...)
[EFI GPT]
[Mac
        ]
          Apple partition map
       ] Non partitioned media
[None
        ] Sun Solaris partition
[Sun
       1 XBox partition
[XBox
[Return ] Return to disk selection
Note: Do NOT select 'None' for media with only a single partition. It's very
rare for a drive to be 'Non-partitioned'.
```

Agora hai que seleccionar Analyse para comezar a análise da estrutura das particións presentes e a procura de particións perdidas existentes:

```
TestDisk 6.10, Data Recovery Utility, July 2008
Christophe GRENIER <grenier@cgsecurity.org>
http://www.cgsecurity.org
```

Disk 80 - 12 GB / 12 GiB - CHS 1566 255 63

E	Analyse	1	Analyse current partition structure and search for lost partition
E	Advanced]	Filesystem Utils
E	Geometry]	Change disk geometry
E	Options]	Modify options
E	MBR Code]	Write TestDisk MBR code to first sector
E	Delete]	Delete all data in the partition table
E	Quit]	Return to disk selection

Note: Correct disk geometry is required for a successful recovery. 'Analyse' process may give some warnings if it thinks the logical geometry is mismatched.

En principio non hai ningunha partición na táboa de particións, co cal hai que pulsar en **Quick Search** para facer unha análise non profunda de procura de particións na táboa de particións.

TestDisk 6.10, Data Recovery Utility, July 2008 Christophe GRENIER <grenier@cgsecurity.org> http://www.cgsecurity.org</grenier@cgsecurity.org>									
Disk 80 - 12 GB ∕ 12 GiB - CHS Current partition structure: Partition	1566 255 63 Start	3 End	Size in sectors						
No partition is bootable									
*=Primary bootable P=Primary	L=Logical	E=Extended	D=Deleted						
Tr	y to locate	partition							

Ante a cuestión de se se queren procurar particións creadas baixo Vista responder que Si, co cal hai que pulsar a tecla Y

TestDisk 6.10, Data Recovery Utility, July 2008 Christophe GRENIER <grenier@cgsecurity.org> http://www.cgsecurity.org

Should TestDisk search for partition created under Vista ? [Y/N] (answer Yes if unsure)_

Na análise, Quick Search atopa unha partición -e como se pode comprobar, vén sendo a partición que previamente se borrou con Ranish Partition Manager-, co cal hai que pulsar en **Enter** para continuar:

TestDisk 6.10, Data Recover Christophe CRENIER (grenie)	ry U	tilitu	, Julu	J 200)8			
http://www.ogenounity.ong	recy.	SCCUL	reg.org	1				
nttp://www.cysecurity.ory								
Disk 80 - 12 GB / 12 GiB -	CHS	1567	255 63	3				
Partition	S	tart		End		Size	in	sectors
* HPFS – NTFS	Θ	1 1	1565	254	63	251	577	27
Structure: Ok. Use Up/Down Use Left/Right Arrow keys f *=Primary bootable P=Prima Keys A: add partition, L: Enter: to continue NTFS, 12 GB / 11 GiB	n Ari to Cl ary load	row ke HANGE L=Log backu	eys to partif (ical (p, T:	sele tion E=Ex chan	ct cha cten Ige	parti racte ded type,	tio ris D=D P:	n. tics: eleted list files

Seleccionar Write para gardar no disco duro a estrutura da táboa de particións atopada:

TestDisk 6.10, Data Recovery Utility, July 2008 Christophe GRENIER (grenier@cgsecurity.org> http://www.cgsecurity.org Disk 80 - 12 GB / 12 GiB - CHS 1567 255 63 Partition Start End Size in sectors 1 * HPFS - NTFS 0 1 1 1565 254 63 25157727 TestDisk 6.10, Data Recovery Utility, July 2008 Christophe GRENIER {grenier@cgsecurity.org> http://www.cgsecurity.org Write partition table, confirm ? (Y/N)_

Sae un aviso dicindo que debemos reiniciar para que os cambios efectuados teñan efecto. Ler o aviso e pulsar Enter para continuar:

```
TestDisk 6.10, Data Recovery Utility, July 2008
Christophe GRENIER <grenier@cgsecurity.org>
http://www.cgsecurity.org
You will have to reboot for the change to take effect.
```

Seleccionar Quit para saír do Testdisk e reiniciar para que teñan lugar os cambios realizados:

```
TestDisk 6.10, Data Recovery Utility, July 2008
Christophe GRENIER <grenier@cgsecurity.org>
http://www.cgsecurity.org
Disk 80 - 12 GB / 12 GiB - CHS 1567 255 63
[ Analyse
              Analyse current partition structure and search for lost partition
           ]
              Filesystem Utils
E
 Advanced 1
 Geometry 1
              Change disk geometry
Г
[ Options ]
              Modify options
              Write TestDisk MBR code to first sector
Г
 MBR Code 1
           ]
              Delete all data in the partition table
  Delete
           1
              Return to disk selection
[ Quit
Note: Correct disk geometry is required for a successful recovery. 'Analyse'
process may give some warnings if it thinks the logical geometry is mismatched.
```

Unha vez feitos todos estes pasos, a partición previamente borrada foi recuperada. Pódese comprobar voltando a facer os primeiros pasos deste apartado (ver a táboa de particionamento con diversos programas de particionamento).

--ricardofc 14 nov 2008