

# 1 Recuperar Particións

## 1.1 Recuperar Particións

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   End     Size    Type    File system  Flags
  1      32.3kB  12.9GB  12.9GB  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 Version 2.44 (beta) by Muthu June 09, 2002

Hard Disk 1 12,288 Mbytes [ 1,566 cylinders x 255 heads x 63 sectors ]  
Using LBA

#	Type	Row	File System Type	Starting			Ending			Partition Size [KB]
				Cyl	Head	Sect	Cyl	Head	Sect	
0	MBR		Master Boot Record	0	0	1	0	0	1	0
1	Pri		Unused	0	0	2	0	0	63	31
2	*Pri	1	Windows NT NTFS	0	1	1	1,565	254	63	12,578,863
3	Pri		Unused	1,566	0	1	1,566	127	33	4,017
4			Unused	0	0	0	0	0	0	0
5			Unused	0	0	0	0	0	0	0
6			Unused	0	0	0	0	0	0	0
7			Unused	0	0	0	0	0	0	0

B - Boot flag on/off    INS - select file system    DEL - clear record

MBR

#	Partition	Size
1	*NTFS	12,284
2	Unused	0
3	Unused	0
4	Unused	0

This is unsupported file system.  
No additional details are available.

F1 Help    F2 Save = F3 Undo = F4 Mode = F5 Disk    ESC Quit

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

Ranish Partition Manager Version 2.44 (beta) by Muthu June 09, 2002

Hard Disk 1 12,288 Mbytes [ 1,566 cylinders x 255 heads x 63 sectors ]  
Using LBA

#	Type	Row	File System Type	Starting			Ending			Partition Size [KB]
				Cyl	Head	Sect	Cyl	Head	Sect	
0	MBR		Master Boot Record	0	0	1	0	0	1	0
1	Pri		Unused	0	0	2	1,566	127	33	12,582,911
2			Unused	0	0	0	0	0	0	0
3			Unused	0	0	0	0	0	0	0
4			Unused	0	0	0	0	0	0	0
5			Unused	0	0	0	0	0	0	0
6			Unused	0	0	0	0	0	0	0
7			Unused	0	0	0	0	0	0	0

ENTER - Start wizard    INS - select file system    DEL - clear record

MBR

#	Partition	Size
1	Unused	0
2	Unused	0
3	Unused	0
4	Unused	0

Press ENTER to start Partitioning Wizard,  
which will guide you through the creation  
of new partitions.

F1 Help    F2 Save = F3 Undo = F4 Mode = F5 Disk    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.

Ranish Partition Manager				Version 2.44 (beta) by Muthu				June 09, 2002			
Hard Disk 1 12,288 Mbytes [ 1,566 cylinders x 255 heads x 63 sectors ]											
Using LBA											
#	Type	Row	File System Type	Starting Cyl Head Sect			Ending Cyl Head Sect			Partition Size [KB]	
0	MBR		Master Boot Record	0	0	1	0	0	1	0	
1	Pri		Unused	0	0	2	1,566	127	33	12,582,911	
2			Unused	0	0	0	0	0	0	0	
3			Unused	0	0	0	0	0	0	0	
4			Unused	0	0	0	0	0	0	0	
5			Unused	0	0	0	0	0	0	0	
6			Unused	0	0	0	0	0	0	0	
7			Unused	0	0	0	0	0	0	0	
Partition table was saved to hard disk.											
MBR											
#	Partition		Size								
1	Unused		0	Press ENTER to start Partitioning Wizard, which will guide you through the creation of new partitions.							
2	Unused		0								
3	Unused		0								
4	Unused		0								
F1 Help				F2 Save = F3 Undo = F4 Mode = F5 Disk				ESC Quit			

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

### 1.1.1 Recuperar unha partición utilizando testdisk

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

Unha vez iniciado este programa, seleccionárase 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:

```
[ Create ] Create a new log file
[ Append ] Append information to log file
[ No Log ] 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  ] Intel/PC partition
[EFI GPT] EFI GPT partition map (Mac i386, some x86_64...)
[Mac    ] Apple partition map
[None   ] Non partitioned media
[Sun    ] Sun Solaris partition
[XBox   ] Xbox partition
[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

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

Disk 80 - 12 GB / 12 GiB - CHS 1566 255 63
Current partition structure:
    Partition                Start          End      Size in sectors

No partition is bootable

*=Primary bootable  P=Primary  L=Logical  E=Extended  D=Deleted
[Quick Search]
Try 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 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
* HPFS - NTFS              0  1  1  1565 254 63    25157727

Structure: Ok.  Use Up/Down Arrow keys to select partition.
Use Left/Right Arrow keys to CHANGE partition characteristics:
*=Primary bootable  P=Primary  L=Logical  E=Extended  D=Deleted
Keys A: add partition, L: load backup, T: change type, P: list files,
      Enter: to continue
NTFS, 12 GB / 11 GiB

```

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

[ Quit ] [Deeper Search] [ Write ]
                        Write partition structure to disk

```

Confirmar que se quere escribir no disco duro pulsando a tecla **Y**

```
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.
```

```
[Ok]
```

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 partitions
[ Advanced ] Filesystem Utils
[ Geometry ] Change disk geometry
[ Options  ] Modify options
[ MBR Code ] Write TestDisk MBR code to first sector
[ Delete   ] Delete all data in the partition table
[ 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.
```

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