# **Installation Guide**

**Linux Mint** 

apr 24, 2024

# Discargar

1	Elige le juste edition	3
2	Verifica tu imagine ISO	7
3	Crear le medios bootabile	9
4	Facer le boot de Linux Mint	13
5	Installar Linux Mint	15
6	Drivers hardware	23
7	Codecs multimedial	25
8	Supporto del linguas	27
9	Instantaneos de schermo del systema	29
10	EFI	35
11	Optiones de boot	39
12	Boot-plurime	43
13	Partitiones	47
14	Pre-installar Linux Mint (Installation OEM)	49
15	Ubi cercar auxilio	51

Linux Mint veni in forma de imagine ISO (un file .iso) que pote esser usate pro le creation de un DVD o un clave USB bootabile.

Iste guida te adjutara a discargar le correcte imagine ISO, crear tu medios bootabile e installar Linux Mint sur tu computator.



#### Elige le juste edition

Tu pote discargar Linux Mint ex le Sito web de Linux Mint.

Lege in basso pro seliger qual edition e architectura es juste pro te.

### 1.1 Cinnamon, MATE o Xfce?

Linux Mint veni in 3 differente sapores, cata monstrante un distincte ambiente de scriptorio.

Cinnamon	Le scriptorio le plus moderne, innovative e functional.
MATE	A more traditional, and faster desktop
Xfce	The most lightweight desktop

Le version le plus popular de Linux Mint es le edition de Cinnamon. Cinnamon es primarimente disveloppate pro e per Linux Mint. Illo es efficiente, belle, e ric de nove functionalitate.

Linux Mint is also involved in the development of MATE, a classic desktop environment which is the continuation of GNOME 2, Linux Mint's default desktop between 2006 and 2011. Although it misses a few features and its development is slower than Cinnamon's, MATE uses less resources and can run faster on older computers.

Xfce es un ambiente de scriptorio leger. Illo non supporta tante functionalitates como Cinnamon o MATE, ma il es extrememente stabile e multo leve sur le uso de ressources.

Naturalmente, tote le tres scriptorios es grande e Linux Mint es extrememente fer de cata edition. Ben que il ha plus de functionalitate e melior supporto in alcun editiones quam alteros, e uno face fluer plus veloce e usa minus ressources quam alteres, illos es totos grande alternatives e per le election del juste edition es largemente un question de gusto.

Ultra que pro su functionalitates e performance, Cinnamon, MATE e Xfce alsi representa tres distincte ambientes de scriptorio, con differente menus, differente pannellos e utensiles de configuration. Illo juste un pro te es le uno ubi tu te senti a casa.

Si tu non es secur de qual scriptorio eliger initia per le edition Cinnamon. Prova los tote, eventualmente, quando tu ha le tempore. Tote le tres de illos ha lor proprie audientia in le collectivitate de Linux Mint e illos es tote multo popular.



Fig. 1: Cinnamon



Fig. 2: MATE



Fig. 3: Xfce

# 1.2 32-bits o 64-bits?

From version 20 onward, only 64-bit is available.

The 32-bit ISO images on prior versions are provided for compatibility with older computers. 32-bit processors are extremely rare nowadays and most computers are able to run in 64-bit. If your computer was manufactured after 2007, you probably have a 64-bit processor.

Si tu ha un vetule computator e tu es insecur si annon illo pote fluer in 64-bits, lege Chronologia del X86.

**Tip:** Tu pote provar a facer le boot de Linux Mint a 64-bits sur tu computator. Si illo non es compatibile, nihil de mal occurrera. Tu justo obtenera un message de error.

**Note:** If you cannot boot or install Linux Mint because your hardware is too recent and is not properly detected see the Edge ISO Images chapter in the Linux Mint User Guide for an alternative ISO.

### Verifica tu imagine ISO

Il es importante verificar le integritate e authenticitate de tu imagine ISO.

Le controlo de integritate confirma que tu imagine ISO ha essite debitemente discargate e que tu file local es un exacte copia del file presente sur le servitores de discargamento. Un error durante le discarga pote implicar in un file corrupte e discatenar problemas aleatori durante le installation.

Le controlo de authenticitate confirma que le imagine ISO que tu ha discargate era signate per Linux Mint, e assi que illo non es un copia modificate o maligne componite per alicuno.

# 2.1 Discarga le summa de controlo SHA256 providite per Linux Mint

Tote le speculos de discarga forni le imagines ISO, un file sha256sum.txt e un file sha256sum.txt.gpg. Tu debe ser capace a trovar iste files in le mesme loco ubi tu ha discargate le imagine ISO.

Si tu non pote trovar los, explora Heanet, le speculo de discargamento e clicca le version de edition de Linux Mint que tu ha discargate.

Discarga sia sha256sum.txt, que sha256sum.txt.gpg.

Do not copy their content, use "right-click->Save Link As..." to download the files themselves and do not modify them in any way.

## 2.2 Controlo del integritate

Pro controlar le integritate de tu file local ISO, genera su summa SHA256 e compara lo con le summa presente in sha256sum.txt.

sha256sum -b yourfile.iso

Hint: If you are using Windows follow the tutorial How to verify the ISO image on Windows.

Si le summas concorda, tu imagine ISO ha essite discargate con bon successo.

## 2.3 Controlo del authenticitate

Pro verificar le authenticitate de sha256sum.txt, controla le firma de sha256sum.txt.gpg per le sequente le grados.

#### 2.3.1 Importa le clave firma de Linux Mint:

```
gpg --keyserver hkp://keyserver.ubuntu.com:80 --recv-key "27DE B156 44C6 B3CF 3BD7 D291_

→ 300F 846B A25B AE09"
```

**Note:** Si gpg se plange re le ID del clave, prova in vice le sequente commandos:

```
gpg --keyserver hkp://keyserver.ubuntu.com:80 --recv-key A25BAE09
gpg --list-key --with-fingerprint A25BAE09
```

Check the output of the last command, to make sure the fingerprint is 27DE B156 44C6 B3CF 3BD7 D291 300F 846B A25B AE09 (with or without spaces).

#### 2.3.2 Verifica le authenticitate de sha256sum.txt:

```
gpg --verify sha256sum.txt.gpg sha256sum.txt
```

Le emission del ultime commando debe te indicar que le firma del file es good e que illo ha essite signate per le clave A25BAE09.

**Note:** GPG pote te prevenir que le firma de Linux Mint non es fidite per tu computator. Isto es expectate e perfectemente normal.

# CAPITULO $\mathbf{3}$

Crear le medios bootabile

Le maniera plus facile pro installar Linux Mint es per un clave USB.

Si tu non pote facer le boot ab USB, tu pote usar un DVD blanc.

# 3.1 Como crear un clave USB bootabile

#### 3.1.1 In Linux Mint

Clicca dextre le file ISO e selige *Make Bootable USB Stick*, o lancea  $Menu \rightarrow Accessories \rightarrow USB$  Image Writer.

USB Image Writer								
Write image:	linuxmint-18.3-cinnamon-64bit.iso 🛅 to USB DISK 2.0 (/dev/sdc) - 16GB ▼							
Details								
	Close Write							

Elige tu dispositivo USB e clicca Write.

#### 3.1.2 In Windows, MAC OS, o altere distributiones de Linux

Download Etcher, install it and run it.

•••		😧 Need Help? 🌣
SELECT IMAGE		FLASH IMAGE
0		3
Select image		Flash!
.img, .iso, or compressed images		
	AN OPEN SOURCE PROJECT BY	Sresin.io 1.0.0-beta.6

Fig. 1: Usar Etcher

Clicca *Select image* e selige tu file ISO.

Clicca Select drive e selige tu clave USB.

Clicca Flash!.

# 3.2 Como render bootabile un DVD

Le discos optic es lente e registrar al disco es pron a errores.

Note: Pro prevenir problemas, registra al velocitate le plus basse possibile.

**Warning:** Registra le contentamento del ISO in le DVD, non le mesme file ISO. Quando tu ha completate, tu DVD debe continer directorios como boot e casper, illo non debe esser un DVD vacue continente un file iso.

#### 3.2.1 In Linux

Installa e usa xfburn.

#### 3.2.2 In Windows

Clicca dextre le file ISO e elige Burn disk image.

Pro te assecurar que le ISO ha essite registrate sin ulle errores, elige Verify disc after burning.

#### 3.2.3 In Mac OS

Clicca dextre le file ISO e elige Burn Disk Image to Disc.

### Facer le boot de Linux Mint

Ora que tu ha Linux Mint sur un clave USB (o DVD) re-initia le computator ab illo.

- 1. Insere tu clave USB (o DVD) bootabile in le computator.
- 2. Relancea le computator
- 3. Ante tu computator face le boot tu actual systema operative (Windows, MAC, Linux) tu debe vider tu schermo de cargamento BIOS. Controla le schermo o le documentation de tu computator pro saper que clave pulsar e indicar a tu computator de re-initiar per USB (o DVD).

**Note:** Le major parte de BIOS ha un clave special que tu pote pulsar pro eliger le dispositivo de re-initio e tote los ha un clave special pro monstrar le schermo de configuration del BIOS (per le qual tu pote definir le ordine del dispositivos de boot). Secundo le BIOS, iste special claves pote esser Escape, F1, F2, F8, F10, F11, F12, o Delete. Ille informationes es usualmente brevemente scribite sur le schermo durante le sequentia de boot.

Hint: Sur Macs, mantene tu digito pulsate sur le clave Alt o Option post audite le sono del boot.

- 4. Le Linux Mint ISO pote esser lanceate sia in modo EFI o sia in modo BIOS. In modo EFI illo monstra un menu de GRUB. In modo BIOS illo monstra un menu de isolinux.
- 5. Ab uno de iste menu, pulsa Enter pro lancear Linux Mint ab tu clave USB (o DVD).



Fig. 1: Le menu de isolinux in modo BIOS



Fig. 2: Le menu del GRUB in modo EFI

# Installar Linux Mint

## 5.1 Le session vivente

Quando tu face le boot del computator ab le clave USB (o DVD), Linux Mint initia un session extemporanee. Illo te connecte automaticamente como un usator appellate mint e te monstra un scriptorio con le installator sur illo:

Computer				
enstall Linux Mint				
		(m)		
	Calendar			
Accessories	💟 Library			
Graphics	LibreOffice			
C Internet	LibreOffice Base			
Office	ElbreOffice Calc			
Sound & Video	LibreOffice Draw			
Administration	LibreOffice Math			
Preterences	LibraOffice Wilter			
Recent Files				

Fig. 1: Le session extemporanee de Linux Mint

Le session extemporanee es similabile a un normal session (id es Linux Mint jam permanentemente installate sur le computator), ma con le sequente exceptiones:

• Le session extemporanee es plus lente (illo es cargate ab un clave USB o un DVD contra un SSD o HDD).

- Le modificationes que tu face in le session extemporanee non es permanente. Illos non es scribite al clave USB (o DVD) e illos non influentia le systema installate per le installator.
- Alcun applicationes functiona differentemente (o non functiona del toto) in le session extemporanee (Timeshift, Flatpak, Update Manager, Welcome Screen..etc).

Hint: Le nomine de usator pro le session extemporanee es mint. Si rogate pro un contrasigno pulsa Enter.

## 5.2 Installation de Linux Mint sur le computator

Pro installar permanentemente Linux Mint sur tu computator:

- 1. Clicca duple Installar Linux Mint.
- 2. Elige tu lingua.

	Install		– ×
Welcome			
Welconne			
English			
Español			
Esperanto			
Euskara			
Français			
Gaeilge			
Galego			
Hrvatski			
Íslenska			
Italiano			
Kurdî			
		Quit Pack	Continuo
		Quit	Continue

- 3. Connecte te a Internet.
- 4. Si tu es connexe a Internet, marca le buxo pro installar le codecs multimedial.
- 5. Elige un typo de installation.

Si Linux Mint es le sol systema operative que tu desira facer fluer sur iste computator e tote le datos pote esser perdite sur le disco dur, elige *Erase disk and install Linux Mint*.

**Warning:** *Encrypt the new Linux Mint installation for security* se refere al cryptographia de tote le disco. A iste grado del installation tu disposition de claviero non es ancora seligite, assi illo es configurate a en\_US. Si tu decide de usar iste option, tene lo ben in mente quando tu inserera tu contrasigno. Nota que il ha problemas per iste option e alcun drivers NVIDIA. Si tu es novicio de Linux usa in vice le cryptographia del plica home (tu lo potera eliger postea, durante le installation).

Install	— ×
Wireless	
Connecting this computer to a wi-fi network allows you to install third-party software, download updates, automatically detect your timezone, and install full support for your language. <ul> <li>I don't want to connect to a wi-fi network right now</li> </ul>	
<ul> <li>Connect to this network</li> <li>Intel Corporation Wireless 7260 (Dual Band Wireless-AC 7260)</li> </ul>	
Password: Display par	ssword
Quit Back Conne	ct
•••••	

Install	– ×
Preparing to install Linux Mint	
Install third-party software for graphics and Wi-Fi hardware, Flash, MP3 and other media This software is subject to license terms included with its documentation. Some is proprietary.	
Quit Back Continue	e



Si un altere systema operative es presente sur le computator, le installator te monstra un option pro installar Linux Mint insimul al illo. Si tu selige iste option, le installator automaticamente re-dimensiona le partition existente de tu systema operative, procura spatio e installa Linux Mint a latere de illo. Un menu de boot es configurate pro eliger inter le duo systemas operative cata vice que tu initia tu computator.

Note: Si tu desira gerer le partitiones o specificar qual partitiones usar, elige Something else.

	Install –						– ×		
	Installation type								
i	<b>sda1 (ntf</b> 104.9 MB	s) 🗖	<b>sda2 (ntfs)</b> 524.3 GB	<b>sda3 (</b> 8.0 GB	linux-swap)	<b>sda4 (ext</b>	t4)		
	Device	Туре	Mount point	Format?	Size	Used	System		
	/dev/sda								
	/dev/sda1	ntfs			104 MB	25 MB	Windows 7 (loader)		
	/dev/sda2	ntfs			524288 MB	190400 MB			
	/dev/sda3	swap			7999 MB	unknown			
				×					
	/dev/sdb								
	+ - Ch	ange						New Partition Table	Revert
	Device for bo	oot load	der installation:						
	/dev/sda A	ATA ST2	2000DL003-9V	T1 (2.0 TB					•
							Quit	<u>B</u> ack <u>I</u> n	stall Now
					•	•••	•••		

Linux Mint require de montar un partition sur le directorio radical /.

Le systema operative Linux Mint (sin additional software o datos personal) prende circa 15GB, assi da a iste partition un dimension conveniente (100GB o plus de).

ext4 es recommendate. Illo es le systema de files plus in voga de Linux.

-	Edit partition	×
Size:	1468005 - +	MB
Use as:	Ext4 journaling file system 🔹	
	Format the partition:	
Mount point:	/	
	Cancel OK	

Crea alsi un partition de intercambio (swap). Iste partition es usate pro hibernation e como un tampon de securitate in caso tu computator flue foras de RAM. Da a iste partition un dimension equal al quantitate del RAM in tu computator.

- 6. Elige tu fuso horari
- 7. Elige tu disposition de claviero



Install –					
Keyboard layout					
Choose your keyboard layout: Uzongxna English (Cameroon) English (Ghana) English (Ghana) English (Nigeria) English (South Africa) English (UK) English (UK) English (UK) Esperanto Estonian Faroese Filipino Finnish Erench. Type here to test your keyboard Detect Keyboard Layout	English (US) English (US) - Cherokee English (US) - English (Colemak) English (US) - English (Dvorak alternative international no dead keys) English (US) - English (Dvorak) English (US) - English (Dvorak, international with dead keys) English (US) - English (Macintosh) English (US) - English (Macintosh) English (US) - English (Programmer Dvorak) English (US) - English (US, alternative international) English (US) - English (US, international with dead keys) English (US) - English (US, with euro on 5) English (US) - English (Workman)				
	Back Continue				
••••••					

#### 8. Insere tu detalios de usator

	Install			- )
Who are you?				
Your name:	Iohn Boone		0	
Your computer's name:	mars	0		
rou compater shame.	The name it uses when it talks to	other computers.		
Pick a username:	john	0		
Choose a password:	•••••	Good password		
Confirm your password:	•••••	0		
	<ul> <li>Log in automatically</li> </ul>			
	Require my password to	log in		
	Encrypt my home fol	der		
			Back Continu	ie

Tu nomine pote esser tu real nomine, ma illo non es necesse. Illo es solmente usate localmente, in le salva schermo e sur le schermo de apertura de session.

Tu nomine de usator es illo que tu usara pro te authenticar, e tu nomine del hospite es le nomine de tu computator sur le rete.

Pro prevenir defectos usa solmente litteras minuscule, sin punctuation o accentuation.

Pro proteger tu datos personal contra attaccos local (personas circum te, o in caso que tu computator es robate), marca *Encrypt my home folder*. Cifra mi plica Home.

Elige un contrasigno forte.

9. Gusta le presentation de diapositivas durante que Linux Mint es installate sur tu computator.

Quando le installation es finite, clicca Restart Now.

Le computator alora initiara a arrestar se e te querera de remover le disco USB (o DVD). Al re-initio, tu computator debe monstrar te un menu de boot o poner in marcha tu systema operative Linux Mint a pena installate.



	Installation Complete	×
Ð	Installation has finished. You can continue testing Linux Mint now, but until you restart the computer, any changes you make or documents you save will not be preserved	i.
	Continue Testing Restart Now	

## Drivers hardware

Uno del prime cosas a facer post le installation de Linux Mint es controlar pro le drivers del hardware disponibile.

1. Lancea  $Menu \rightarrow Administration \rightarrow Driver Manager$ .

	Driver Manager	- + X
intel	NVIDIA Corporation This device is using the recommended driver. <b>nvidia-384 (recommended)</b> Version 384.90-Oubuntu0.16.04.2 NVIDIA binary driver - version 384.90 <b>xserver-xorg-video-nouveau (open-source)</b> Version 1:1.0.12-1build2 X.Org X server - Nouveau display driver Intel(R) Core(TM) i7-5775C CPU @ 3.30GHz Processor microcode <b>intel-microcode</b> Version 3.20170707.1~ubuntu16.04.0 Processor microcode firmware for Intel CPUs Do not update the CPU microcode	
2 proprieta	ry drivers in use.	Revert Apply Changes

Hint: If you are offline, the Driver Manager will inform you that it cannot connect to the Internet.

	Driver Manager		– + ×
•	Drivers cannot be installed. Please connect to the Internet or insert the Linux Mint installation stick).	DVD (or USB	ОК
No pro	prietary drivers are in use.	Revert	Apply Changes

Insere tu clave USB bootabile de Linux Mint (o DVD), attende que illo sia montate, e clicca OK.

- 2. Marca le quadratos de selection apte pro seliger le drivers disponibile e clicca Apply Changes.
- 3. Relancea le computator

# Codecs multimedial

Alcun contentos multimedial require que es installate additional codecs.

**Note:** Si tu era online durante que tu installava Linux Mint e tu marcava le option pro installar iste codecs, illos es ja installate.

1. Lancea  $Menu \rightarrow Sound \& Video \rightarrow Install Multimedia Codecs.$ 



- 2. Clicca Install.
- 3. Insere tu contrasigno e attende que le codecs sia installate sur tu computator.

# Supporto del linguas

Language support includes translations but also packages related to spell-checking, synonyms, hyphenation and dictionaries which enhance your experience in software applications such as LibreOffice.

1. Launcea  $Menu \rightarrow Preferences \rightarrow Languages$ .

	Languag	e Settings		– + ×
	Language	Input method		
Language				
Language Language, interface, date and time			English, United States UTF-8	
Region Numbers, currency, addresses, measure	ment		English, United States UTF-8	
System locale Language: English, United States Region: English, United States			Apply System-Wide	
Language support 49 languages installed			Install / Remove Languages	

- 2. Clicca Install / Remove Language.
- 3. Si al latere de tu region, tu vide un etiquetta que dice Alcun pacchettos de lingua es mancante, elige tu region e clicca *Install language packs*.

-		Install / Remove Languages	- + ×
	English, Philippines UTF-8	Fully installed	
<b>(</b> ;	English, Singapore UTF-8	Fully installed	
	English, South Africa UTF-8	Some language packs are missing	
	English, United Kingdom UTF	F-8 Fully installed	
	English, United States UTF-8		
	English, Zambia	Fully installed	
	English, Zambia UTF-8	Fully installed	
2	English, Zimbabwe UTF-8	Fully installed	
	French, Belgium UTF-8	Fully installed	
•	French, Canada UTF-8	Fully installed	
	French, France UTF-8	Fully installed	
	French, Luxembourg UTF-8	Fully installed	
	French, Switzerland UTF-8	Fully installed	
	Note: Installi	ing or upgrading language packs can trigger the installation of additional languages	
		Add Remove Install language packs	
			Close

## Instantaneos de schermo del systema

Ante que tu initia a usar tu systema operative, defini le instantaneos del systema. Alora si alco va mal, tu potera restaurar tu systema ab un salvamento precedente.

- 1. Lancea  $Menu \rightarrow Administration \rightarrow Timeshift$ .
- 2. Elige RSYNC e clicca Next.
- 3. Elige le dispositivo ubi tu desira salveguardar le instantaneos de systema e clicca Next

**Note:** Le dispositivo seligite non es formattate e nulle datos es perdite. Le instantaneos de systema es salvate in un nove directorio timeshift create sur le radice del dispositivo seligite.

4. Elige ubi le instantaneos de systema es salvate.

**Note:** Le instantaneos de systema es incremental, assi ben que le prime instantaneo prende un significante quantitate de spatio, le nove instantaneos prende solo spatio pro le files que ha cambiate.

Note: Le instantaneos de Boot es complite in le fundo e non recula le celeritate del sequentia de boot.

5. Clicca Finish.

Setup Wizard – + ×
Select Snapshot Type
RSYNC O BTRFS
RSYNC Snapshots
<ul> <li>Snapshots are created by creating copies of system files using rsync, and hard-linking unchanged files from previous snapshot.</li> </ul>
<ul> <li>All files are copied when first snapshot is created. Subsequent snapshots are incremental. Unchanged files will be hard-linked from the previous snapshot if available.</li> </ul>
<ul> <li>Snapshots can be saved to any disk formatted with a Linux file system. Saving snapshots to non-system or external disk allows the system to be restored even if system disk is damaged or re-formatted.</li> </ul>
<ul> <li>Files and directories can be excluded to save disk space.</li> </ul>
Previous Next Finish

Setup Wizard					- + ×
Select Snapshot Lo		Refresh			
Disk		Туре	Size	Free	
🕶 🧾 Samsung SSD 850 /	ATA		1 TB		
🔘 sdb1		ext4	984 GB	689 GB	
USB DISK 2.0		iso9660	16 GB		
🛨 🧾 BIWIN SSD ATA			256 GB		
sda1		ext4	252 GB	42 GB	
Previous	N	ext		Finish	

Setup Wizard – + ×								
Select Snapshot Levels								
Monthly *	Keep	2	-	+				
Weekly *	Keep	3	-	+				
🗈 Daily *	Keep	5	-	+				
Hourly *	Keep	б	-	+				
🖪 Boot	Keep	5	-	+				
* Scheduled task ru	ins once	every l	hour					
Stop cron emails	s for sch	eduleo	l task	S				
Sche	duled	l sna	psł	nots	are enabled			
Snapshots will be created at selected intervals if snapshot disk has anough space $> 1$ (P)								
	uisk nus enough spuce (> T GB)							
Previous Next Finish								

		Timeshift			- + ×
	8 🖬 💥 C				≡
Create Restore E	Delete Browse Settings Wizard	t			Menu
Snapshot	System	Tags Comr	nents		
2017-11-14 16:42	:07 LinuxMint 18.2 (sonya)	0			
2017-11-14 16:53	:01 LinuxMint 18.2 (sonya)	0			
2017-11-14 16:55	:11 LinuxMint 18.3 (sylvia)	0			
2017-11-28 11:44					
2017-11-28 11:52	:32 LinuxMint 18.3 (sylvia)	В			
2017-11-28 12:00	:01 LinuxMint 18.3 (sylvia)	В			
2017-11-28 12:04	:32 LinuxMint 18.3 (sylvia)	В			
2017-11-28 12:19	:07 LinuxMint 18.3 (sylvia)	В			
2017-12-01 18:00	:01 LinuxMint 18.3 (sylvia)	D			
2017-12-04 10:33	:08 LinuxMint 18.3 (sylvia)	B D			
2017-12-05 11:00	:01 LinuxMint 18.3 (sylvia)	D			
2017-12-06 11:00	:01 LinuxMint 18.3 (sylvia)	D			
Timesh	nift is active			12	689,4 GB
Latest snap Oldest snap	pshot: décembre 06, 2017 11:00 pshot: novembre 14, 2017 16:42		Sna	apshots rsync	Available /dev/sdb1

### EFI

### 10.1 SecureBoot

Si post le installation de Linux Mint in modo EFI, tu es incapace a facer le boot per un Violation de Secure Boot, tu pote provar un del sequente solutiones:



- Relancear le installation:
  - Connecte te a Internet ante le installation
  - \*\*Non\* eliger Installar software de tertie parte pro hardware graphic e Wi-Fi, Flash, MP3 e altere medios.
- Disactiva SecureBoot in le preferentias de BIOS de tu computator.

**Note:** Pro exemplos de como disactivar secure boot su varie computatores, lege Managing EFI Boot Loaders for Linux: Dealing with Secure Boot.

### 10.2 Ordine de boot de EFI

Si post le installation de Linux Mint in modo EFI, tu computator salta le menu de boot e face le boot directemente in Windows (o un altere systema operative), tu probabilemente ha un problema con le ordine de boot.

Pro modificar le ordine de boot:

- 1. Lancea Linux Mint in modo extemporanee (per tu clave USB o DVD).
- 2. Aperi un terminal.
- 3. Type sudo efibootmgr and press Enter.

Iste commando lista le optiones de boot disponibile e le ordine de boot.



In le instantaneo de schermo antecedente, il ha tres optiones de boot:

- ubuntu a 0000
- linuxmint a 0001
- Mac OS X a 0081

Le primo in ordine de boot es **0081**. Isto indica que le computator tenta solo de facer le boot per MAC OS e non Linux Mint.

Important: Pro rationes technic Linux Mint usa ubuntu como su nomine de boot de EFI.

4. Pro stabilir le ordine de boot, insere sudo efibootmgr --bootorder XXXX,YYYY (ubi XXXX e YYYY es le optiones de boot que tu desira pro tu systema operative).

mint@mint ~	-	+	×
File Edit View Search Terminal Help			
<pre>mint@mint ~ \$ sudo efibootmgrbootorder 0000,0081 BootCurrent: 0000 Timeout: 5 seconds Boot000e* ubuntu Boot0001* linuxmint Boot0081* Mac OS X Boot0082* mint@mint ~ \$</pre>			

In le precedente instantanea de schermo, sudo efibootmgr --bootorder 0000,0081 indica al computator de provar primo a facer le boot per Linux Mint (ubuntu es le nomine de boot pro Linux Mint in EFI), e pois per MAC OS.

5. Relancea le computator

**Note:** In le precedente instantanea de schermo 0000 es le prime option de boot assi le computator face le boot sur le menu de GRUB de Linux Mint. Si GRUB falle (o si illo es dimittite per le commando exit), le computator seque le ordine de boot e pois tenta de facer le boot per 0081, que corresponde a MAC OS.

## Optiones de boot

Alcun schedas graphic e schedas matre non functiona ben per le drivers open-source presente in Linux Mint per option predefinite.

#### 11.1 Modo compatibilitate

Le solution plus facile es eliger, ab le menu de re-initio del clave USB (o DVD), le option de re-initio in modo de compatibilitate.

Si illo non functiona, tu pote provar le option de re-initio nomodeset.

## 11.2 Option de re-initio nomodeset

In modo EFI, evidentia le option Facer fluer Linux Mint e pulsa e pro redefinir le optiones de re-initio.

Replacia quiet splash con nomodeset e pulsa F10 pro re-initiar le computator.

In modo BIOS, evidentia Start Linux Mint e pulsa Tab pro redefinir le optiones de re-initio.

Replacia quiet splash con nomodeset e pulsa Enter pro re-initiar le computator.

Repeter iste operation post-installa in tu grub le Menu de re-initio e lege le drivers :doc: pro installar altere drivers.



Fig. 1: Menu del GRUB (modo EFI)

Welcome to Linux Mint 18.3 Cinnamon 64-bit
Start Linux Mint Start in compatibility mode OEM install (for manufacturers) Integrity check Memory test Boot from local drive
Press [Tab] to edit options

Fig. 2: Menu de Isolinux (modo del BIOS)





# 11.3 Altere optiones de re-initio

Si tu ancora non pote re-initiar prova uno del sequente solutiones:

- Prova nouveau.noaccel=1 in vice de nomodeset
- Post le installation, usa *Optiones avantiate*  $\rightarrow$  *Modo de restabilimento* ab le menu de re-initio e elige resume.

# 11.4 Face le boot per un kernel plus vetere

Si tu computator ha problemas con le ultime edition de Linux Mint, installa un previe version ab le mesme serie de Linux Mint.

Per exemplo, si tu non pote installar Linux Mint 18.3 (que veni con un kernel 4.10), installa Linux Mint 18 (que veni con un kernel 4.4) e promove lo a 18.3.

**Note:** Le prime version in cata serie usa un kernel LTS (Supporto a longe termino). Promover ab iste version al ultimo in le serie, non cambia tu kernel.

### Boot-plurime

### 12.1 Sempre installa primo Windows

Windows non revela altere systemas operative jam presente e non monstra un menu de boot. Quando tu lo installa, illo supplanta tu sequentia de boot e tu computator facera postea le boot directemente in Windows.

Linux Mint (e le major parte del distributiones de Linux) discoperi le altere systemas operative jam presente sur le dispositivo e produce un menu per le qual tu pote seliger per qual systema facer le boot.

Pro iste ration, si tu desira un dual-boot o boot-plurime con Windows, illo es plus facile e recommendate que tu installa primo Windows, ante que tu installa Linux Mint.

## 12.2 Defini le sequentia de boot

Si Windows supplanta tu sequentia de boot:

- 1. Lancea Linux Mint in modo extemporanee (per tu clave USB o DVD).
- 2. Aperi un terminal.
- 3. To list your partitions, type lsblk -f and press Enter.

Trova le partition ubi es installate Linux Mint. Sur le major parte de systemas isto serea le sol partition ext4.

In le instantanea de schermo precedente:

- sdb es le clave USB (recognoscibile per su typo iso9660 que corresponde a un imagine ISO).
- sda es le disco dur.
- sda4 es le partition sur le disco dur sda, ubi Linux Mint es installate.

Pro listar le dimensiones de tu partitiones, insere lsblk:

Pro listar le etiquettas de tu partitiones, insere blkid:

3. Monta le partition de Linux Mint e reinstalla le menu GRUB per le sequente commandos:



		mint@mint ~	- + ×
File Edit View S	earch Terminal Help		
<pre>mint@mint ~ \$ NAME MAJ:MIN sdb 8:16 sdb2 8:18 sdb1 8:17 sr0 11:0 loop0 7:0 sda 8:0 sda4 8:4 sda2 8:2 sda3 8:3 sda1 8:1 mint@mint ~ \$</pre>	lsblk RM SIZE RO TYPE 1 7.5G 0 disk 1 2.3M 0 part 1 1.8G 0 part 1 1024M 0 rom 0 1.7G 1 loop 0 1.8T 0 disk 0 1.3T 0 part 0 488.3G 0 part 0 7.5G 0 part 0 100M 0 part	MOUNTPOINT /cdrom [swap]	
File Edit View Searc mintemint ~ \$ blki /dev/sda1: LABEL=' /dev/sda2: UUID="c /dev/sda4: UUID="c mint@mint ~ \$	h Terminal Help id 'System Reserved" UUID SøCOB200CDAE858" TYPE edldf5d4-ab34-4193-ad5	<pre>mint@mint~ ="CCF6D57AF6D564EC" TYPE="ntfs" PARTUUID="ddd2615 ="ntfs" PARTUUID="ddd26158-02" 5-9327d57eec9e" TYPE="ext4" PARTUUID="ddd26158-04</pre>	- + × 8-01" "

sudo mount /dev/sda4 /mnt sudo grub-install --root-directory=/mnt /dev/sda

**Warning:** In le commandos antecedente, supplanta /dev/sda4 e /dev/sda con le nomines applicabile a tu partition de Linux Mint e a tu disco dur.

## Partitiones

### 13.1 Discos e partitiones sub Linux

Si tu non es familiar con le schema de denomination de Linux pro dispositivos e partitiones, o le concepto de systemas de files e punctos de montage, lege:

- · A beginner's guide to disks and disk partitions in Linux
- Device Names in Linux
- Comprender le Systema de files de Linux

### 13.2 Partition /home dedicate

In Linux, le directorio /home es usate pro immagazinar datos e preferentias del usator.

Iste directorio contine un sub-directorio pro cata conto de usator. Si tu nomine de usator es johannes, tu plica home es / home/johannes, tu discargamentos es in /home/johannes/Discargamentos, tu documentos in /home/johannes/ Documentos, tu Firefox signa-libros alicubi in /home/johannes/.mozilla e assi via...

Per dar /home su proprie dedicate partition, tu separa le datos del usator ab le resto del systema operative.

Le avantage es que tu pote essugar le systema operative e supplantar lo sin que affice le datos del usator.

Quando tu installa Linux Mint:

- 1. Assigna le puncto de montage / al partition dedicate al systema operative, e indica le installator a formattar lo.
- 2. Assigna le punctos de montage /home al partition dedicate al datos del usator, e si illo jam contine datos del usator, indica con attention al installator **not to format it**, Non lo formattar.

**Warning:** Isto non es recommendate pro le usatores inexperte. Un grado false durante le installation pote essugar tote tu datos. Face sempre le salvamentos, assecura te de seliger le juste partitiones e de revider con cura le optiones

de Face sempre le salvamentos, assecura te de seliger le juste partitiones e de revider con cura le optiones de formatation.

**Note:** Un systema operative Linux Mint prende circa 15GB e cresce quando tu installa altere software. Si tu pote disponer del dimension, da illo 100GB. Conservar le major parte de tu spatio libere pro le partition home.

# Pre-installar Linux Mint (Installation OEM)

In le menu de boot ISO, OEM install es usate pro pre-installar Linux Mint.

Iste option es utile pro:

- Fabricantes e revenditores qui desira installar Linux Mint sur le computatores que illos vende al proprie clientes.
- Personas qui desira vender o dar proprie computator a alicuno altere.

Quando tu installa Linux Mint in modo OEM, le systema operative es installate con un conto de usator temporanee e preparate pro le futur proprietario del computator.

Le conto del usator es configurate per le nove proprietario.

A exequer un installation OEM seque le grados in sequente:

- 1. Elige OEM Install ab le menu del clave USB (o DVD).
- 2. Lancea le installator e seque le instructiones de installation.
- 3. Relancea le computator
- 4. Cambia cata preferentias de systema o installa software additional si tu los desira.
- 5. Quando preste, clicca *Prepare for shipping to end user*, insere le contrasigno que tu seligeva durante le installation, clicca *OK* e arresta le computator.

Quando le nove proprietario del computator face le boot del computator appare le sequente schermo:

Le nove proprietario selige su nomine de usator, contrasigno, disposition de claviero, lingua, fuso horari e toto le detalios relevante pro crear su conto de usator.





Ubi cercar auxilio

Multe usatores essera contente de te adjutar e te conducer a transverso de tu prime grados con Linux, si tu es amabile e patiente con illes e si tu da les le informationes que illes besonia pro comprender le problemas que tu affronta.

### 15.1 Le forums

Le melior loco pro trovar auxilio es sur le Forums de Linux Mint.

Hint: Cerca le forums ante demandar, in caso alcuno altere ha ja demandate le mesme question.

### 15.2 The chat rooms

Another great place to find help is in the Chat Rooms.

**Hint:** Multe personas es connexe al camera de confabulation, ma solo lo reguarda a vices. Patienta post un question. Non lo repeter e remane connexe usque tu obtene un responsa. Illo pote a vices prender alcun horas pro alicuno pro vider tu question e replicar a te. Non quitar post poc minutas. Illo es frustrante pro te, ma alsi pro alteres le qual depois vide tu question e es incapace a replicar perque tu ja ha abandonate.

# 15.3 Ressources del communitates

Le section del breve instructiones es utile pro trovar breve instructiones circa Linux Mint. Le base de datos del hardware es utile pro trovar hardware compatibile.

# **15.4 Communitates local**

Pro trovar auxilio in tu lingua, usa le Local Communities.