

Session #1 Part 2

Linux Installation Alongside Windows



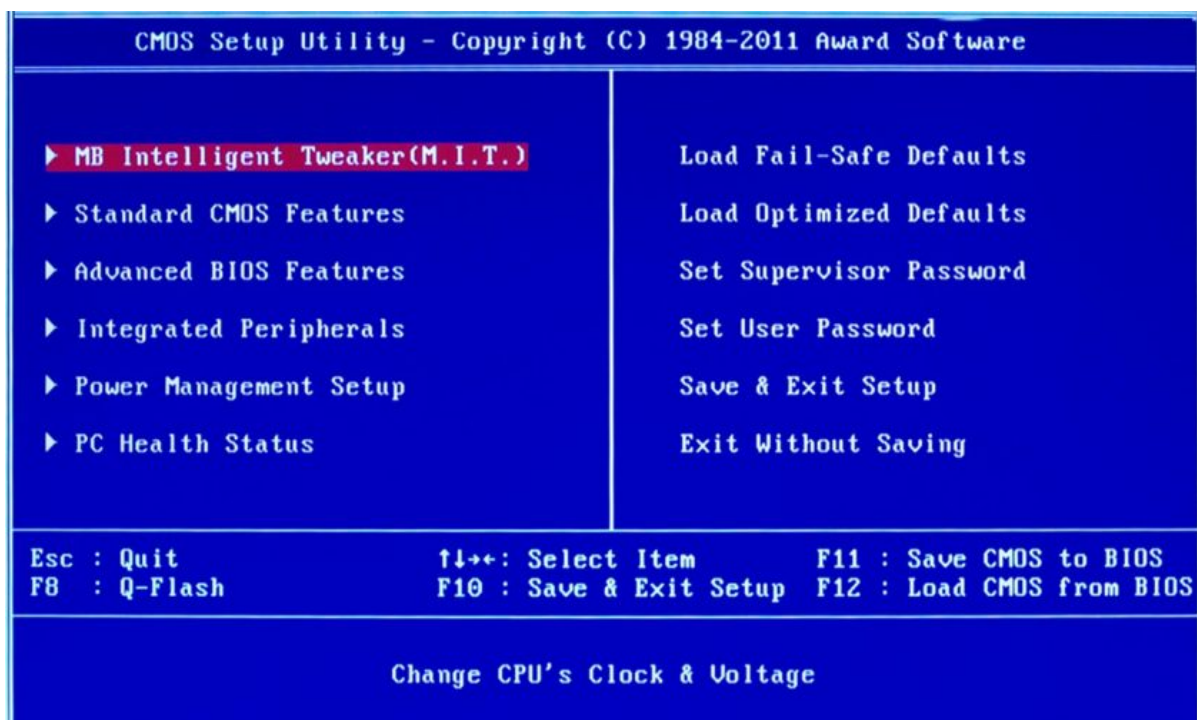
Summary

1. Partitioning.
2. Installation.

Partitioning

Firmware Type

Old BIOS (Legacy Boot):

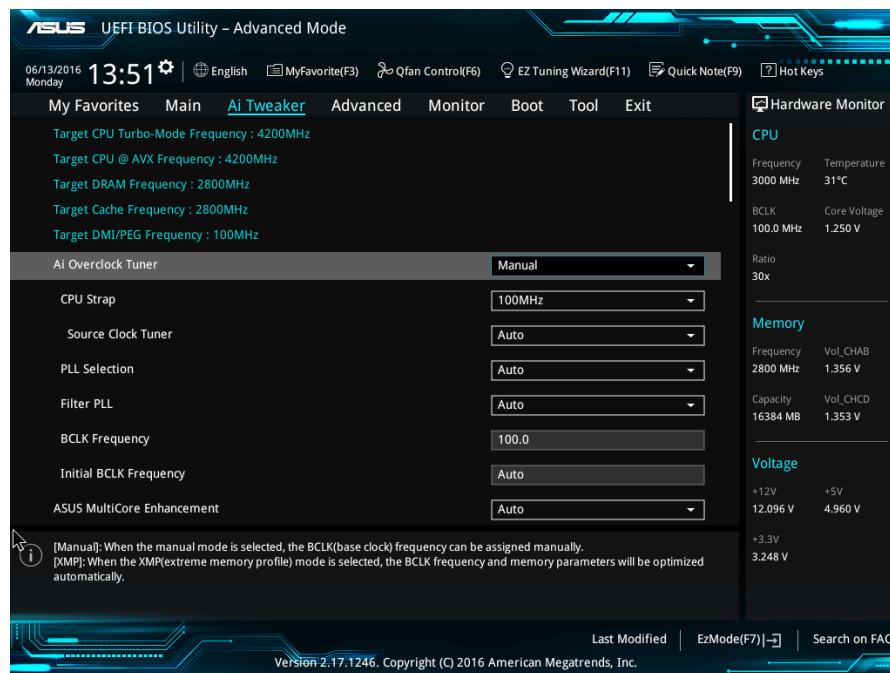


Uses Master Boot Record “MBR” partition table:

MBR: A Partition table that allows the creation of 4 **primary partitions** (May include max. one **Extended Partition**).

Extended Partition: Type of Partitions That Includes **Logical Partitions** Which Functions Like a **Primary Partitions**.

UEFI:



Uses GUID Partition Table “GPT” as the default partition table and can use MBR (in legacy mode/legacy boot).

Note: Converting from MBR to GPT or vice versa will cause all of the data on the drive to be erased as a result of the conversion.

GPT: A partition table that allows the creation of many **primary partitions** and doesn’t have neither **Extended Partitions** nor **Logical Partitions** as they are not needed.

Pre-Installation

➡ If you have an **old BIOS** or **your system is using Legacy Boot** then the disk is using the **MBR partition table** and you are limited to 4 partitions.

- If you already have 4 primary partitions:
 - You'll have to **delete** one of your partitions and make a new extended partition.
 - Back up your data.
 - Delete the partition.
 - Create a new extended partition from the unallocated space.
 - Make a new NTFS partition to continue using it from Windows, leaving at least 30 GiBs to install GNU/Linux on them.
- If you have 3 primary partitions you'll have to **shrink** an existing partition and leave at least 30 GiBs of unallocated space after it.
 - The same applies if you have 3 primary partitions and one extended, just shrink one of the logical partitions inside the extended partitions, preferably the last one.

➡ If you are using **UEFI** then your disk drive is using the **GPT Partition table** which means you can create multiple primary partitions.

You'll only need to **shrink** an existing partition and **leave at least 30 GiBs** of unallocated disk space after it.

Tip: It's recommended to use GParted from the live Linux USB for deleting, shrinking and/or creating extended partitions before installation.

It is highly unrecommended to use the Windows Disk Management utility from Windows.

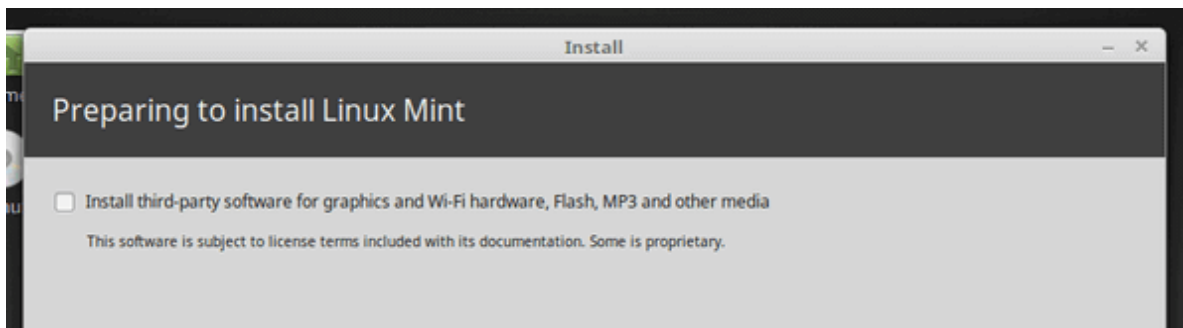
Installation

You can check this guide in Arabic for more details:

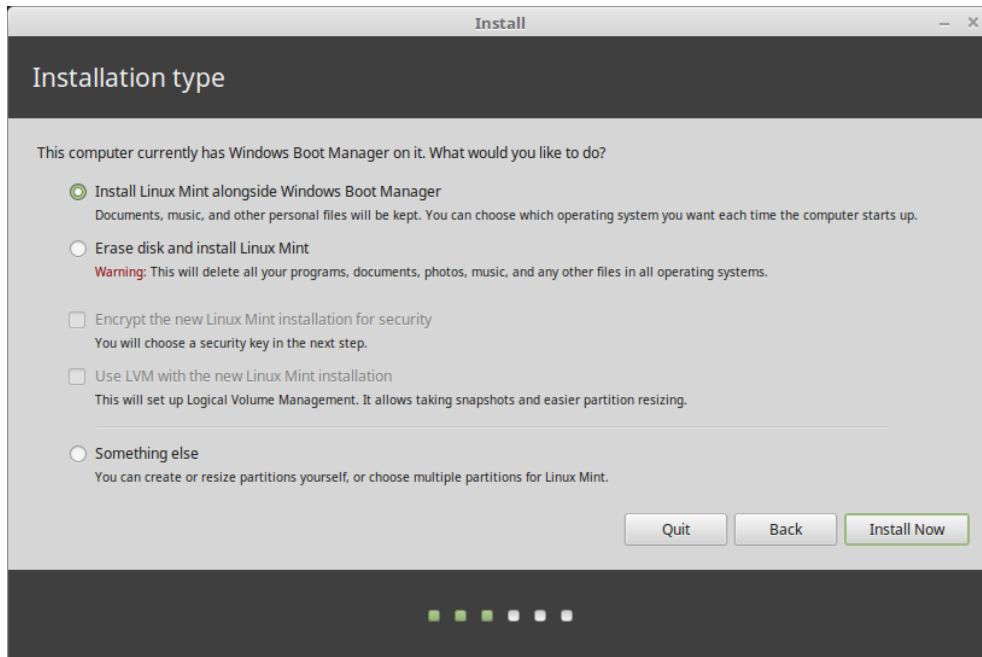
oscsgeeks.org/Linux

After partitioning, if you've done everything correctly, the installation should be very straight forward:

- Boot from your installation media in the required mode(UEFI or Legacy) (If you already had the installation media running, make sure you're in the correct boot mode by restarting and choosing the correct one)
- Start the installation software (Install ___ on this PC)
- Make sure to check this box if you don't mind using some proprietary software, a lot of them may be essential for your system.



- You should find an option for “**Install ____ Alongside Windows Boot Manager**” or “**Install ____ Alongside FreeDOS**” or something in a similar fashion. Select it.



- Continue entering information when prompted during the installer.

You can ask for help on the workshop’s group or on this group: [facebook.com/groups/osc.troubleshoot/](https://www.facebook.com/groups/osc.troubleshoot/)