

Laporan Progress Minggu Ke-2

Benchmarking Performa Sistem Operasi (Linux Vs Windows)

Dosen Pengampu : Ferdi Chahyadi, Skom, M.Cs



Laporan Ini Dibuat Untuk Memenuhi Tugas Proyek Mata Kuliah : System Operasi

Di Susun Oleh : Haciendap2

Bayu Adhandika	2401020011
Azizul Rizky Mahadi	2401020022
Olan Maulana	2401020032
Alfa Julyana	2401020007

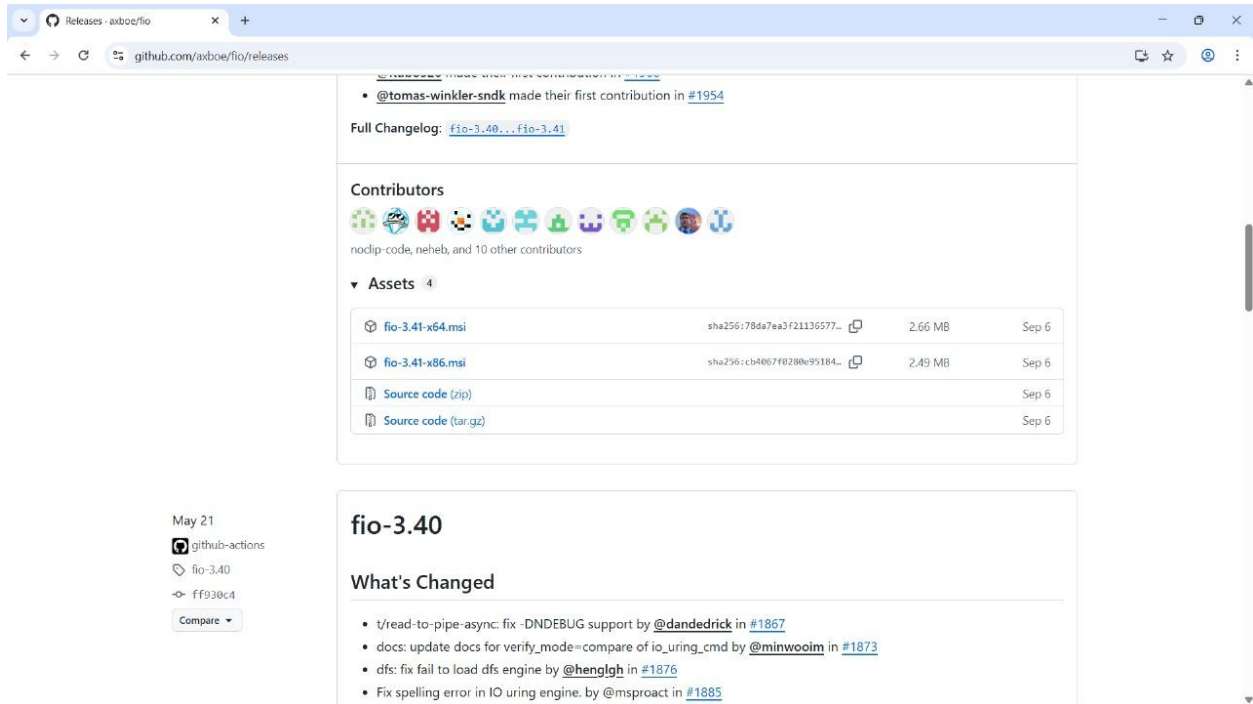
PRODI TEKNIK INFORMATIKA

FAKULTAS TEKNIK & TEKNOLOGI KEMARITIMAN

UNIVERSITAS MARITIMIN RAJA ALI HAJI

2025

1. Download Fio X64 .Msi



Releases · axboe/fio

Full Changelog: [fio-3.40...fio-3.41](#)

Contributors

nodip-code, neheb, and 10 other contributors

Assets 4

Asset	SHA256	Size	Uploaded
fio-3.41-x64.msi	sha256:78da7ea3f21136577...	2.66 MB	Sep 6
fio-3.41-x86.msi	sha256:cb4067f0280e95184...	2.49 MB	Sep 6
Source code (zip)			Sep 6
Source code (tar.gz)			Sep 6

May 21

github-actions

fio-3.40

ff930c4

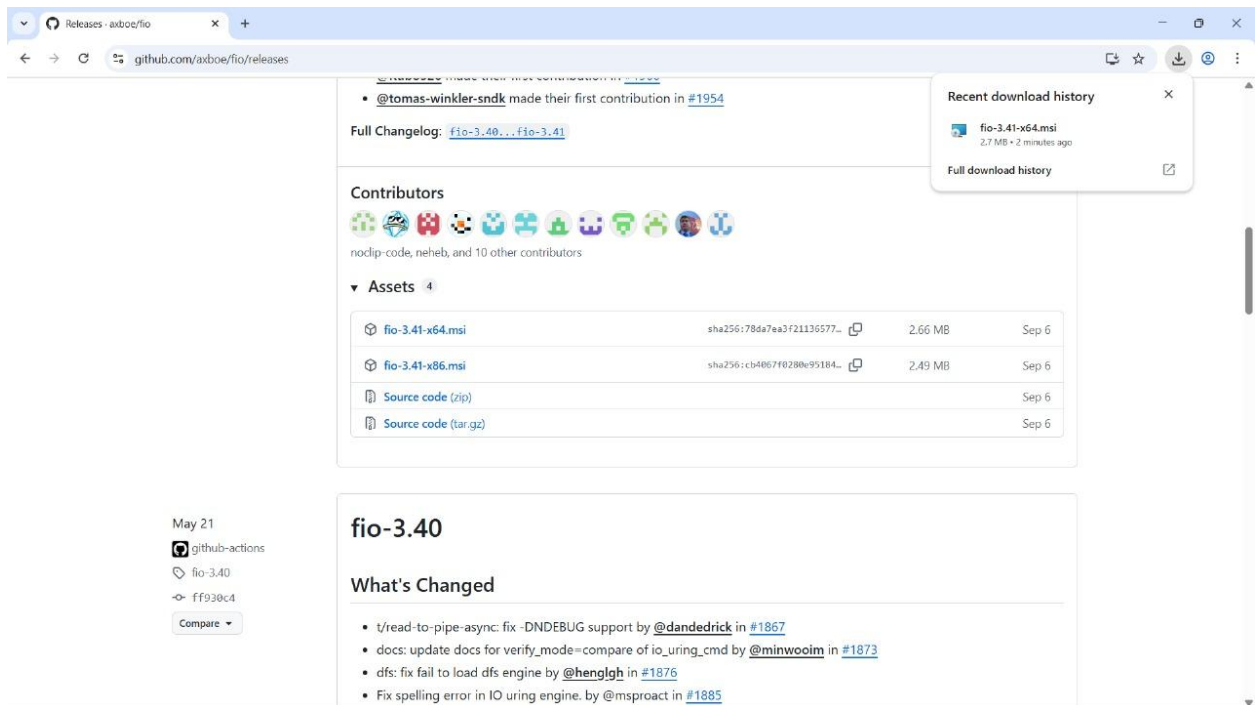
Compare

fio-3.40

What's Changed

- t/read-to-pipe-async: fix -DNDEBUG support by @dandedrick in #1867
- docs: update docs for verify_mode=compare of io_uring_cmd by @minwooin in #1873
- dfs: fix fail to load dfs engine by @henggh in #1876
- Fix spelling error in IO uring engine. by @msproact in #1885

2. Di Kanan Atas Klik 2 Kali Untuk Install



Releases · axboe/fio

Full Changelog: [fio-3.40...fio-3.41](#)

Contributors

nodip-code, neheb, and 10 other contributors

Assets 4

Asset	SHA256	Size	Uploaded
fio-3.41-x64.msi	sha256:78da7ea3f21136577...	2.66 MB	Sep 6
fio-3.41-x86.msi	sha256:cb4067f0280e95184...	2.49 MB	Sep 6
Source code (zip)			Sep 6
Source code (tar.gz)			Sep 6

May 21

github-actions

fio-3.40

ff930c4

Compare

fio-3.40

What's Changed

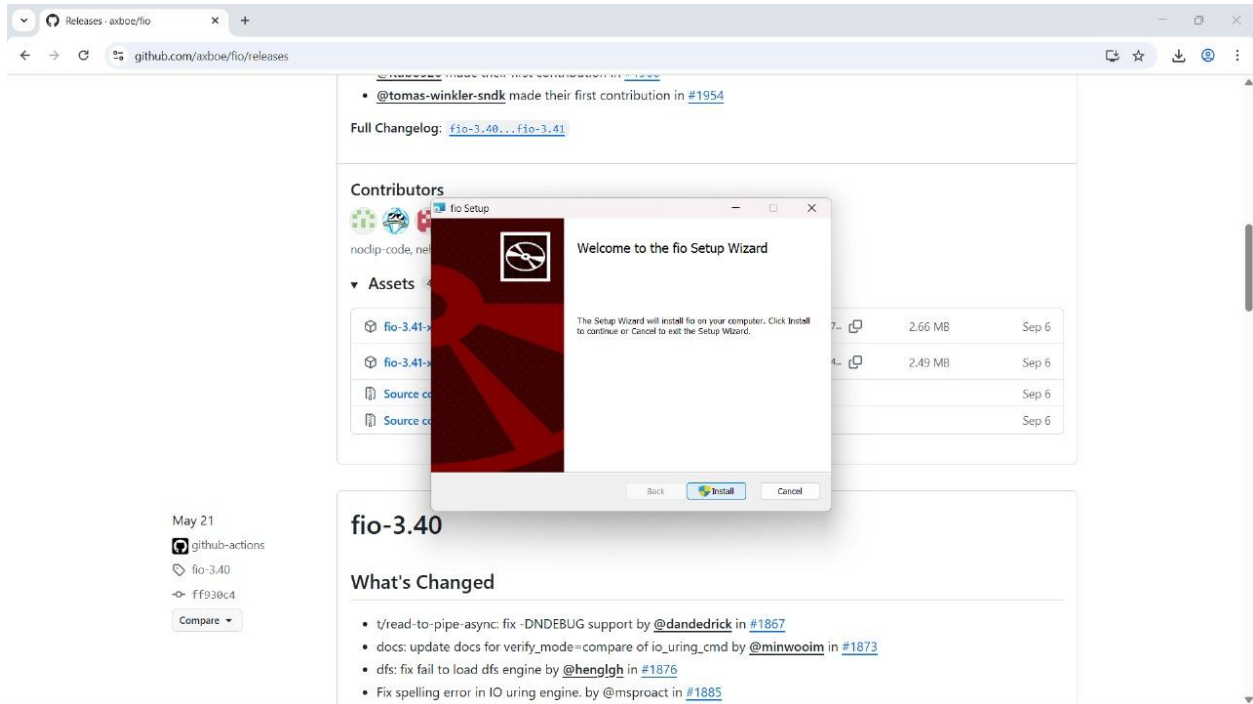
- t/read-to-pipe-async: fix -DNDEBUG support by @dandedrick in #1867
- docs: update docs for verify_mode=compare of io_uring_cmd by @minwooin in #1873
- dfs: fix fail to load dfs engine by @henggh in #1876
- Fix spelling error in IO uring engine. by @msproact in #1885

Recent download history

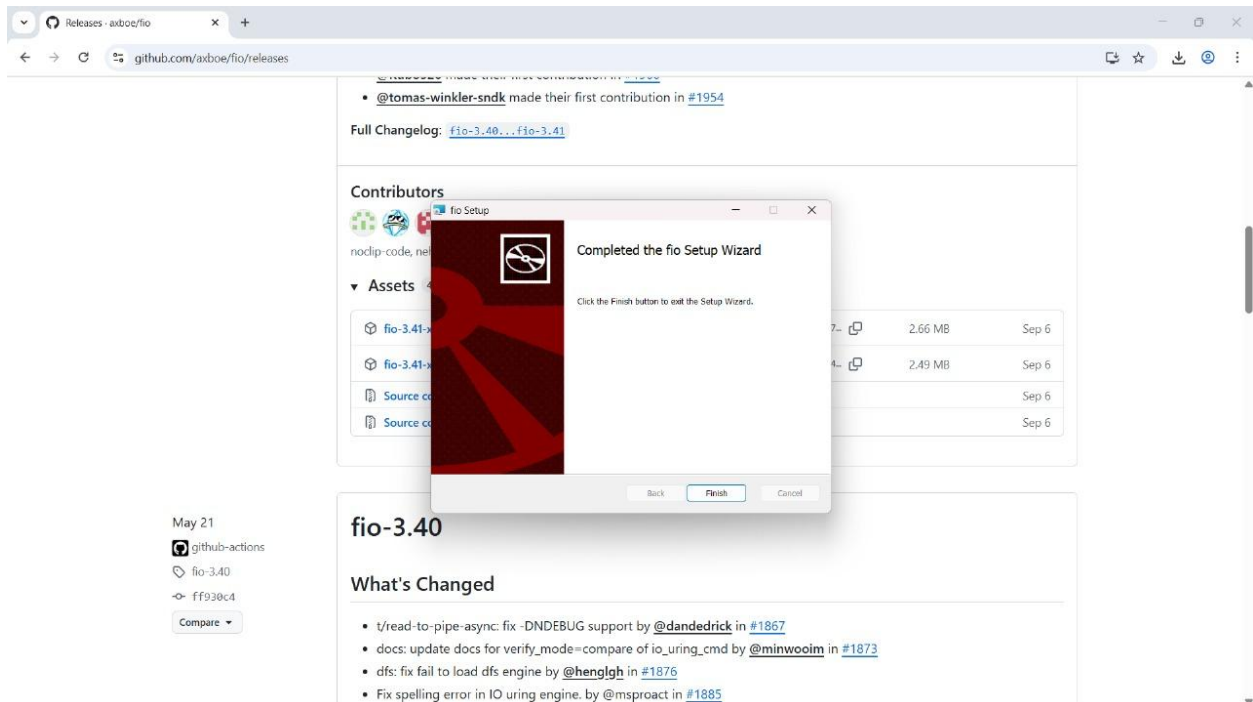
- [fio-3.41-x64.msi](#)
2.7 MB • 2 minutes ago

Full download history

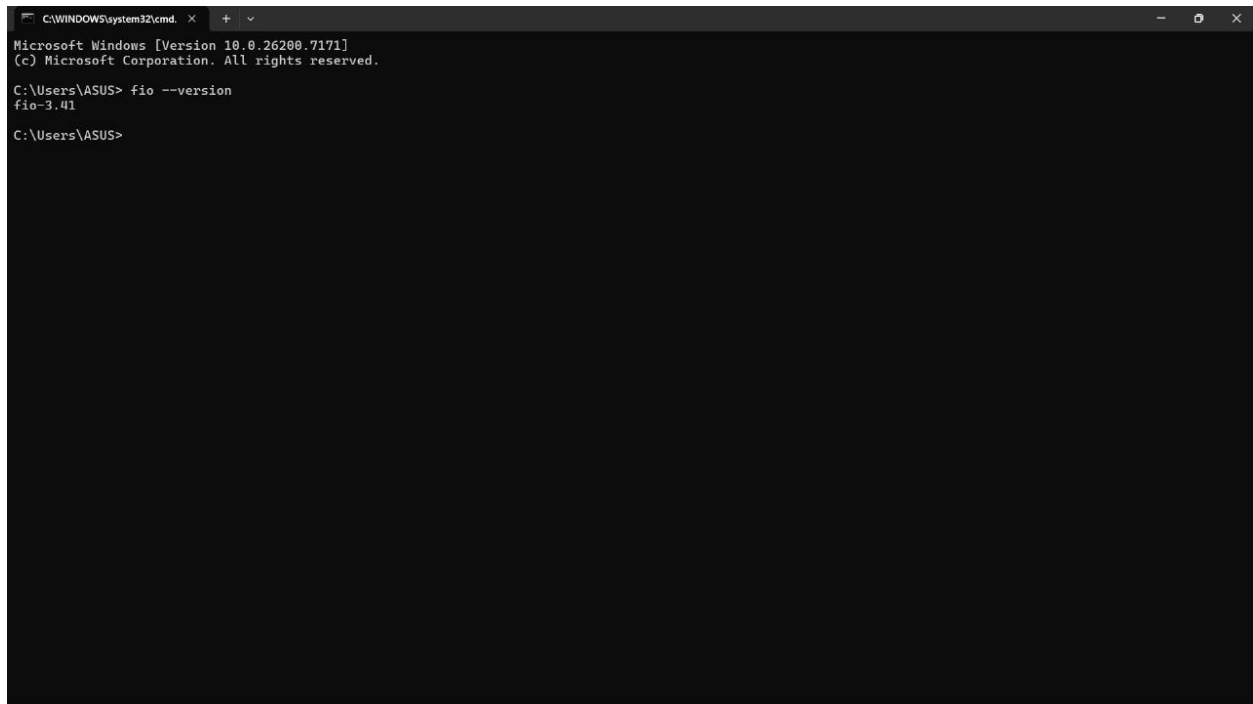
3. Klik Install



4. Klik Finish



5. Fio –Version Fio-3.42



```
C:\WINDOWS\system32\cmd. x + v
Microsoft Windows [Version 10.0.26280.7171]
(c) Microsoft Corporation. All rights reserved.

C:\Users\ASUS> fio --version
fio-3.41

C:\Users\ASUS>
```

6. Name Os

Item	Value
OS Name	Microsoft Windows 11 Home Single Language

7. Ram

Installed Physical Memory (RAM)	16.0 GB
Total Physical Memory	15.3 GB
Available Physical Memory	5.90 GB
Total Virtual Memory	21.3 GB

8. Processor Cpu

The screenshot shows the Windows System Information window with the 'System Summary' tab selected. The left sidebar shows a tree view with 'System Summary' expanded. The main pane displays a list of system properties and their values.

Item	Value
OS Name	Microsoft Windows 11 Home Single Language
Version	10.0.26200 Build 26200
Other OS Description	Not Available
OS Manufacturer	Microsoft Corporation
System Name	AZIZUL
System Manufacturer	ASUSTeK COMPUTER INC.
System Model	Vivobook Go E1404FA_E1404FA
System Type	x64-based PC
System SKU	
Processor	AMD Ryzen 5 7520U with Radeon Graphics, 2801 Mhz, 4 Core(s), 8 Logical ...
BIOS Version/Date	American Megatrends International, LLC. E1404FA.306, 6/15/2023
SMBIOS Version	3.5
Embedded Controller Version	255.255
BIOS Mode	UEFI
BaseBoard Manufacturer	ASUSTeK COMPUTER INC.
BaseBoard Product	E1404FA
BaseBoard Version	1.0
Platform Role	Mobile
Secure Boot State	On
PCR7 Configuration	Elevation Required to View
Windows Directory	C:\WINDOWS
System Directory	C:\WINDOWS\system32
Boot Device	\Device\HarddiskVolume1
Locale	United States
Hardware Abstraction Layer	Version = "10.0.26100.1"
User Name	AZIZUL\ASUS
Time Zone	SE Asia Standard Time
Installed Physical Memory (RAM)	16.0 GB
Total Physical Memory	15.3 GB
Available Physical Memory	5.90 GB
Total Virtual Memory	21.3 GB
Available Virtual Memory	7.50 GB
Page File Space	6.00 GB
Page File	C:\pagefile.sys

Find what: Find Close Find

☐ Search selected category only ☐ Search category names only

9. Spesifikasi Graphics Card

The screenshot shows the Windows System Information window with the 'Storage' category selected in the left sidebar. The 'Disks' sub-category is expanded, showing details for a Samsung MZVL4512HBLU-008TW SSD.

Item	Value
Description	Disk drive
Manufacturer	(Standard disk drives)
Model	SAMSUNG MZVL4512HBLU-008TW
Bytes/Sector	512
Media Loaded	Yes
Media Type	Fixed hard disk
Partitions	5
SCSI Bus	0
SCSI Logical Unit	0
SCSI Port	0
SCSI Target ID	0
Sectors/Track	63
Size	476.94 GB (512,105,932,800 bytes)
Total Cylinders	62,260
Total Sectors	1,000,206,900
Total Tracks	15,876,300
Tracks/Cylinder	255
Partition	Disk #0, Partition #0
Partition Size	260.00 MB (272,629,760 bytes)
Partition Starting Offset	1,048,576 bytes
Partition	Disk #0, Partition #1
Partition Size	231.44 GB (248,510,750,208 bytes)
Partition Starting Offset	290,455,552 bytes
Partition	Disk #0, Partition #2
Partition Size	244.14 GB (262,142,951,424 bytes)
Partition Starting Offset	248,801,918,976 bytes
Partition	Disk #0, Partition #3
Partition Size	850.00 MB (891,289,600 bytes)
Partition Starting Offset	510,945,918,976 bytes
Partition	Disk #0, Partition #4
Partition Size	260.00 MB (272,629,760 bytes)
Partition Starting Offset	511,837,208,576 bytes

Find what: Find Close Find

☐ Search selected category only ☐ Search category names only

10. Disk Management Layout

```
akbarrzk@fedora:~$ sudo dnf install sysbench
[sudo] password for akbarrzk:
Updating and loading repositories:
Repositories loaded.
Package
Installing:
  sysbench
Installing dependencies:
  libpq

Transaction Summary:
  Installing:          2 packages

Total size of inbound packages is 444 KiB. Need to download 444 KiB.
After this operation, 2 MiB extra will be used (install 2 MiB, remove 0 B).
Is this ok [y/N]: y
[1/2] sysbench-0:1.0.20-19.fc43.x86_64
[2/2] libpq-0:18.0-3.fc43.x86_64
-----
[2/2] Total
Running transaction
[1/4] Verify package files
[2/4] Prepare transaction
[3/4] Installing libpq-0:18.0-3.fc43.x86_64
[4/4] Installing sysbench-0:1.0.20-19.fc43.x86_64
Complete!
akbarrzk@fedora:~$ sysbench --version
sysbench 1.0.20
akbarrzk@fedora:~$
```

11. Overview Kapasitas Disk

```
akbarrzk@fedora:~$ sudo dnf install fio
Updating and loading repositories:
Repositories loaded.
Package
Installing:
  fio
Installing weak dependencies:
  fio-engine-dev-dax
  fio-engine-http
  fio-engine-libaio
  fio-engine-libmem
  fio-engine-nbd
  fio-engine-rados
  fio-engine-rbd
  fio-engine-rdma
  fio-engine-rwaa

Transaction Summary:
  Installing:          9 packages

Total size of inbound packages is 7 MiB. Need to download 7 MiB.
After this operation, 9 MiB extra will be used (install 9 MiB, remove 0 B).
Is this ok [y/N]: y
[1/9] fio-engine-http-0:3.40-2.fc43.x86_64
[2/9] fio-engine-dev-dax-0:3.40-2.fc43.x86_64
[3/9] fio-engine-libaio-0:3.40-2.fc43.x86_64
[4/9] fio-engine-libmem-0:3.40-2.fc43.x86_64
[5/9] fio-engine-nbd-0:3.40-2.fc43.x86_64
[6/9] fio-engine-rados-0:3.40-2.fc43.x86_64
[7/9] fio-engine-rbd-0:3.40-2.fc43.x86_64
[8/9] fio-engine-rdma-0:3.40-2.fc43.x86_64
[9/9] fio-0:3.40-2.fc43.x86_64
[9/9] Total
Running transaction
[ 1/1] Verify package files
[ 2/1] Prepare transaction
[ 3/1] Installing fio-engine-dev-dax-0:3.40-2.fc43.x86_64
[ 4/1] Installing fio-engine-http-0:3.40-2.fc43.x86_64
[ 5/1] Installing fio-engine-libaio-0:3.40-2.fc43.x86_64
[ 6/1] Installing fio-engine-libmem-0:3.40-2.fc43.x86_64
[ 7/1] Installing fio-engine-nbd-0:3.40-2.fc43.x86_64
[ 8/1] Installing fio-engine-rados-0:3.40-2.fc43.x86_64
[ 9/1] Installing fio-engine-rbd-0:3.40-2.fc43.x86_64
[10/1] Installing fio-engine-rdma-0:3.40-2.fc43.x86_64
[11/1] Installing fio-0:3.40-2.fc43.x86_64
Complete!
akbarrzk@fedora:~$ fio --version
fio-3.40
akbarrzk@fedora:~$
```

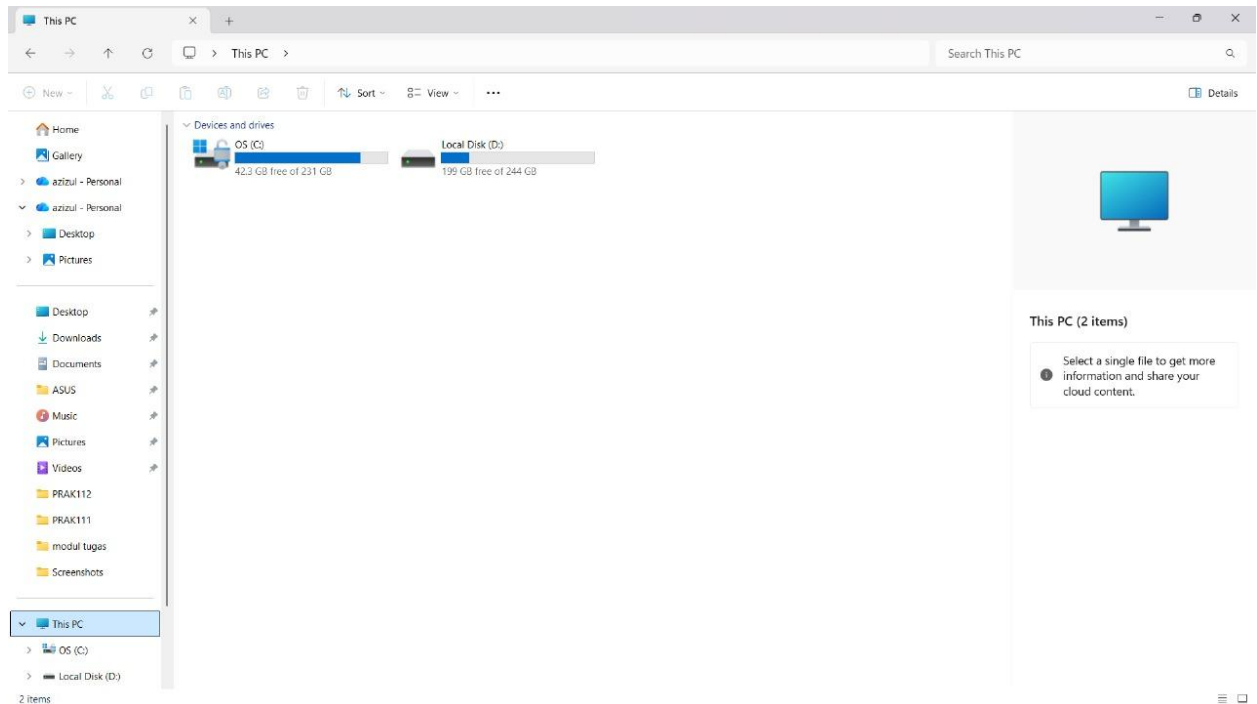
Package	Arch	Version	Repository	Size
fio	x86_64	3.40-2.fc43	fedora	8.8 MiB
fio-engine-dev-dax	x86_64	3.40-2.fc43	fedora	10.7 KiB
fio-engine-http	x86_64	3.40-2.fc43	fedora	44.4 KiB
fio-engine-libaio	x86_64	3.40-2.fc43	fedora	33.0 KiB
fio-engine-libmem	x86_64	3.40-2.fc43	fedora	10.6 KiB
fio-engine-nbd	x86_64	3.40-2.fc43	fedora	18.7 KiB
fio-engine-rados	x86_64	3.40-2.fc43	fedora	30.1 KiB
fio-engine-rbd	x86_64	3.40-2.fc43	fedora	28.8 KiB
fio-engine-rdma	x86_64	3.40-2.fc43	fedora	39.2 KiB

```
100% | 6.6 KiB/s | 17.6 KiB | 00m03s
100% | 5.5 KiB/s | 14.7 KiB | 00m03s
100% | 515.0 B/s | 15.5 KiB | 00m03s
100% | 473.0 B/s | 14.6 KiB | 00m03s
100% | 10.0 KiB/s | 14.3 KiB | 00m01s
100% | 10.1 KiB/s | 15.5 KiB | 00m01s
100% | 20.1 KiB/s | 20.3 KiB | 00m01s
100% | 12.6 KiB/s | 15.9 KiB | 00m01s
100% | 20.7 KiB/s | 0.6 MiB | 05m27s
100% | 20.9 KiB/s | 6.7 MiB | 05m29s
100% | 100.0 B/s | 9.0 B | 00m00s
100% | 13.0 B/s | 9.0 B | 00m01s
100% | 72.2 MiB/s | 8.9 MiB | 00m00s
100% | 5.0 MiB/s | 20.3 KiB | 00m00s
100% | 14.7 MiB/s | 45.1 KiB | 00m00s
100% | 16.4 MiB/s | 33.7 KiB | 00m00s
100% | 8.9 MiB/s | 20.3 KiB | 00m00s
100% | 0.4 MiB/s | 10.3 KiB | 00m00s
100% | 10.0 MiB/s | 20.8 KiB | 00m00s
100% | 0.5 MiB/s | 20.3 KiB | 00m00s
100% | 07.1 KiB/s | 39.9 KiB | 00m01s
```

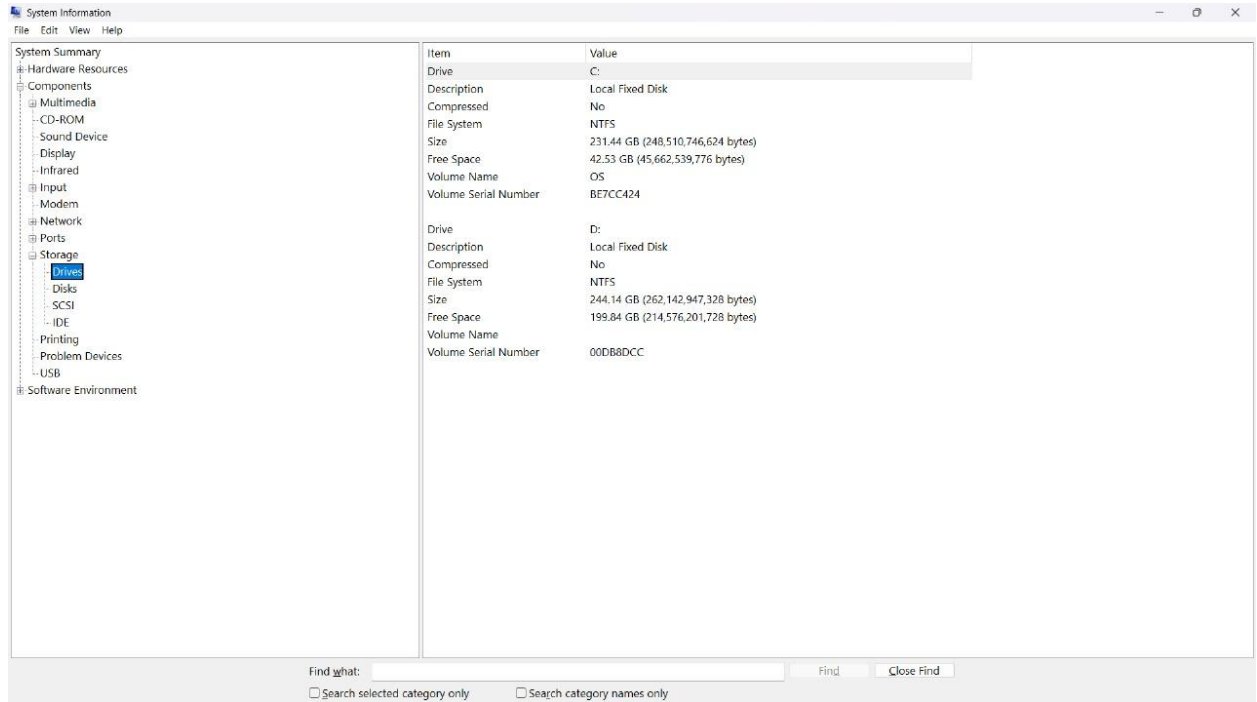
12. Informasi Motherboard

```
akbarrzk@fedora:~$ sudo dnf install stress-ng
Updating and loading repositories:
Repositories loaded.
Package
Installing:
stress-ng
Installing dependencies:
Judy
Transaction Summary:
Installing: 2 packages
Total size of inbound packages is 4 MiB. Need to download 4 MiB.
After this operation, 19 MiB extra will be used (install 19 MiB, remove 0 B).
Is this ok [y/N]: y
[1/2] stress-ng-0:0.19.06-1.fc43.x86_64 0% | 0.0 B/s | -1.0 B | ?
>>> Interrupted
[2/2] Judy-0:1.0.5-39.fc43.x86_64 0% | 0.0 B/s | -1.0 B | ?
>>> Interrupted
-----
[2/2] Total 0% | -109.0 B/s | -2.0 B | 00m00s
Failed to download packages
Librepo error: Curl error (0): Could not resolve hostname for https://mirrors.fedoraproject.org/metalink?repo=updates-released-f43&arch=x86_64 [Could not resolve host: mirrors.fedoraproject.org]
akbarrzk@fedora:~$ sudo dnf install stress-ng
Updating and loading repositories:
Repositories loaded.
Package
Installing:
stress-ng
Installing dependencies:
Judy
Transaction Summary:
Installing: 2 packages
Total size of inbound packages is 4 MiB. Need to download 4 MiB.
After this operation, 19 MiB extra will be used (install 19 MiB, remove 0 B).
Is this ok [y/N]: y
[1/2] Judy-0:1.0.5-39.fc43.x86_64 100% | 112.7 KiB/s | 136.8 KiB | 00m01s
[2/2] stress-ng-0:0.19.06-1.fc43.x86_64 100% | 9.8 KiB/s | 3.8 MiB | 06m35s
>>> curl error (0): Could not resolve hostname for http://mirrors.jlu.edu.cn/fedora/updates/43/Everything/x86_64/Packages/s/stress-ng-0.19.06-1.fc43.x86_64.rpm [Could not resolve host: mirrors.jlu.edu.cn] -- http
>>> curl error (0): Could not resolve hostname for https://mirrors.jlu.edu.cn/fedora/updates/43/Everything/x86_64/Packages/s/stress-ng-0.19.06-1.fc43.x86_64.rpm [Could not resolve host: mirrors.jlu.edu.cn] -- http
-----
[2/2] Total 100% | 10.1 KiB/s | 3.9 MiB | 06m36s
Running transaction
[1/4] Verify package files
[2/4] Prepare transaction
[3/4] Installing Judy-0:1.0.5-39.fc43.x86_64 100% | 14.0 B/s | 2.0 B | 00m00s
[4/4] Installing stress-ng-0:0.19.06-1.fc43.x86_64 100% | 2.0 B/s | 2.0 B | 00m01s
100% | 23.9 MiB/s | 367.7 KiB | 00m00s
100% | 23.5 MiB/s | 19.6 MiB | 00m01s
Complete!
akbarrzk@fedora:~$ stress-ng --version
bash: stress-ng: command not found...
akbarrzk@fedora:~$ stress-ng --version
stress-ng, version 0.19.06 (gcc 15.2.1, x86_64 Linux 6.17.8-308.fc43.x86_64) 🚀
akbarrzk@fedora:~$
```

13. Tampilan This PC



14. Detail Drive C: (Os Drive)

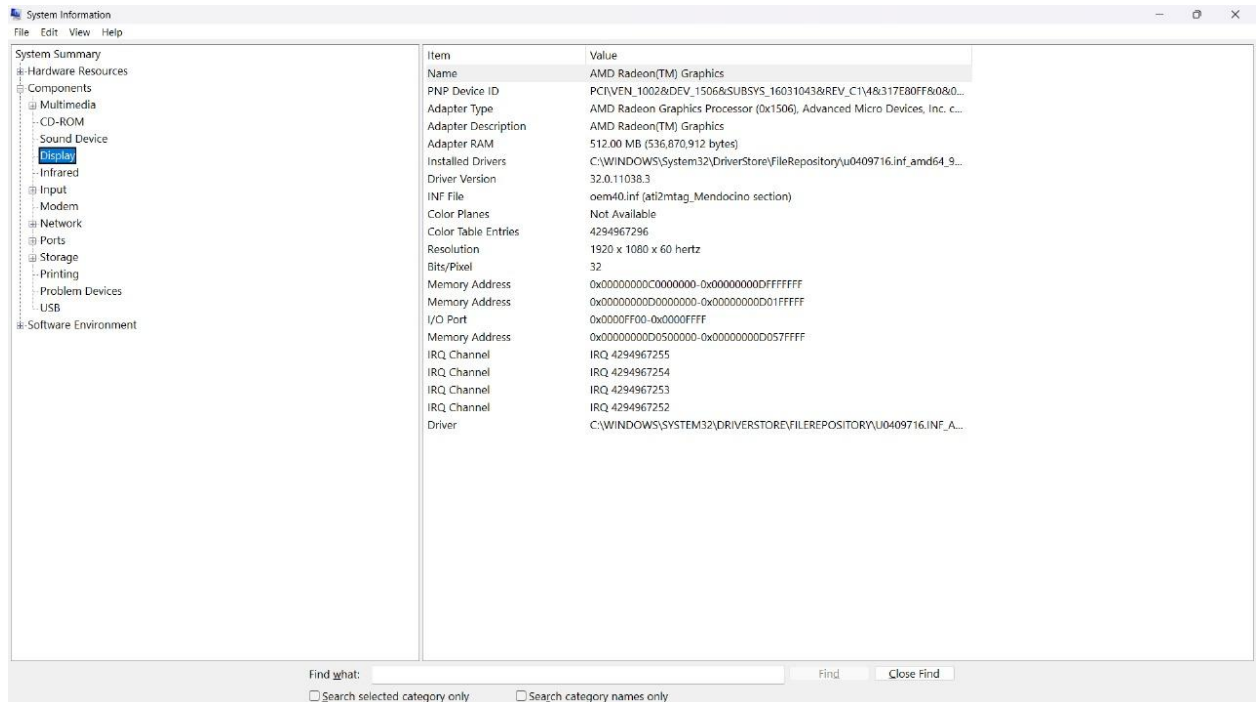


The screenshot shows the Windows System Information window. The left pane displays a tree view of hardware resources, with 'Drives' selected under the 'Storage' category. The right pane shows the details for the selected drive, C:.

Item	Value
Drive	C:
Description	Local Fixed Disk
Compressed	No
File System	NTFS
Size	231.44 GB (248,510,746,624 bytes)
Free Space	42.53 GB (45,662,539,776 bytes)
Volume Name	OS
Volume Serial Number	BETCC424

Below the table, there is a search bar labeled 'Find what:' and two checkboxes: 'Search selected category only' and 'Search category names only'. A 'Find' button and a 'Close Find' button are also present.

15. Detail Drive D: (Storage Drive)



The screenshot shows the Windows System Information window. The left pane displays a tree view of hardware resources, with 'Display' selected under the 'Storage' category. The right pane shows the details for the selected drive, D:.

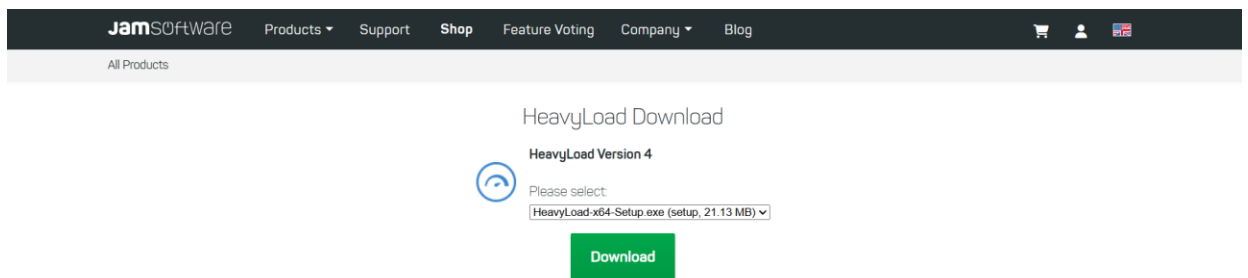
Item	Value
Name	AMD Radeon(TM) Graphics
PNP Device ID	PCI\VEN_1002&DEV_1506&SUBSYS_16031043&REV_C1\4&317E80FF&0&0...
Adapter Type	AMD Radeon Graphics Processor (0x1506), Advanced Micro Devices, Inc. c...
Adapter Description	AMD Radeon(TM) Graphics
Adapter RAM	512.00 MB (536,870,912 bytes)
Installed Drivers	C:\WINDOWS\System32\DriverStore\FileRepository\w0409716.inf_amd64_9...
Driver Version	32.0.11038.3
INF File	oem40.inf (ati2mtag_Mendocino section)
Color Planes	Not Available
Color Table Entries	4294967296
Resolution	1920 x 1080 x 60 hertz
Bits/Pixel	32
Memory Address	0x00000000C0000000-0x00000000DFFFFFFF
Memory Address	0x00000000D0000000-0x00000000D01FFFFFFF
I/O Port	0x0000FF00-0x0000FFFF
Memory Address	0x00000000D0500000-0x00000000D057FFFF
IRQ Channel	IRQ 4294967255
IRQ Channel	IRQ 4294967254
IRQ Channel	IRQ 4294967253
IRQ Channel	IRQ 4294967252
Driver	C:\WINDOWS\SYSTEM32\DRIVERSTORE\FILEREPOSITORY\W0409716.INF_A...

Below the table, there is a search bar labeled 'Find what:' and two checkboxes: 'Search selected category only' and 'Search category names only'. A 'Find' button and a 'Close Find' button are also present.

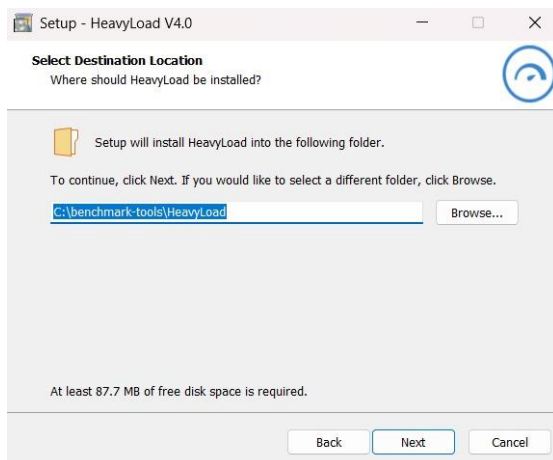
16. Free Disk Space Information

```
aberraz@fedora:~$ sudo dnf install glmark2 -y
[sudo] password for aberraz:
Updating and loading repositories:
Repositories loaded.
Package Arch Version Repository Size
Installing:
glmark2 x86_64 2023.01*20250221gitcebb6d3-2.fc43 fedora 5.4 MiB
Installing dependencies:
glmark2-common noarch 2023.01*20250221gitcebb6d3-2.fc43 fedora 9.8 MiB
Transaction Summary:
Installing: 2 packages
Total size of inbound packages is 8 MiB. Need to download 8 MiB.
After this operation, 14 MiB extra will be used (install 14 MiB, remove 0 B).
[1/2] glmark2-0:2023.01*20250221gitcebb6d3-2.fc43.x86_64 100% | 102.9 KiB/s | 1.0 MiB | 00m10s
[2/2] glmark2-common-0:2023.01*20250221gitcebb6d3-2.fc43.noarch 100% | 14.8 KiB/s | 6.5 MiB | 07m32s
>>> Total error (20): Timeout was reached for http://ftp.cdn.jp.fedoraproject.org/pub/linux/fedora/releases/43/Everything/x86_64/Package/g/glmark2-common-2023.01*20250221gitcebb6d3-2.fc43.noarch.rpm (Operation too slow. Less than 1000 bytes/sec transferred the last 30 seconds) - http://
[2/2] Total 100% | 16.9 KiB/s | 7.5 MiB | 07m36s
Running transaction
[1/4] Verify package files 100% | 21.0 B/s | 2.0 B | 00m00s
[2/4] Prepare transaction 100% | 3.0 B/s | 2.0 B | 00m01s
[3/4] Installing glmark2-0:2023.01*20250221gitcebb6d3-2.fc43.x86_64 100% | 85.5 MiB/s | 5.4 MiB | 00m00s
[4/4] Installing glmark2-common-0:2023.01*20250221gitcebb6d3-2.fc43.noarch 100% | 10.7 MiB/s | 9.8 MiB | 00m01s
Complete!
aberraz@fedora:~$ glmark2
```

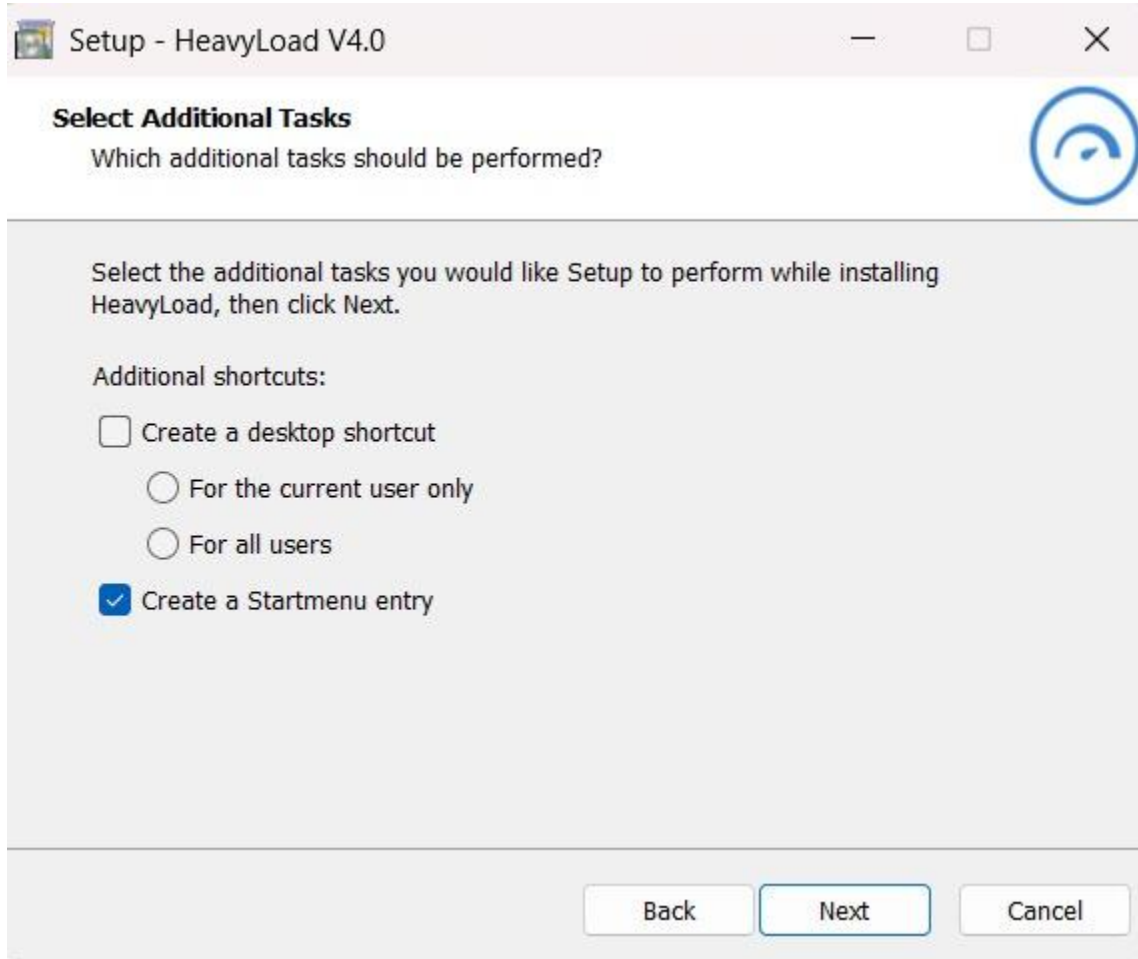
17. Storage Drive Information



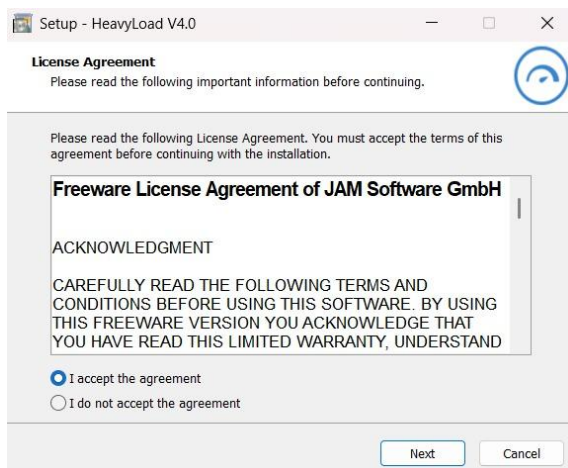
18. System Type & Architecture



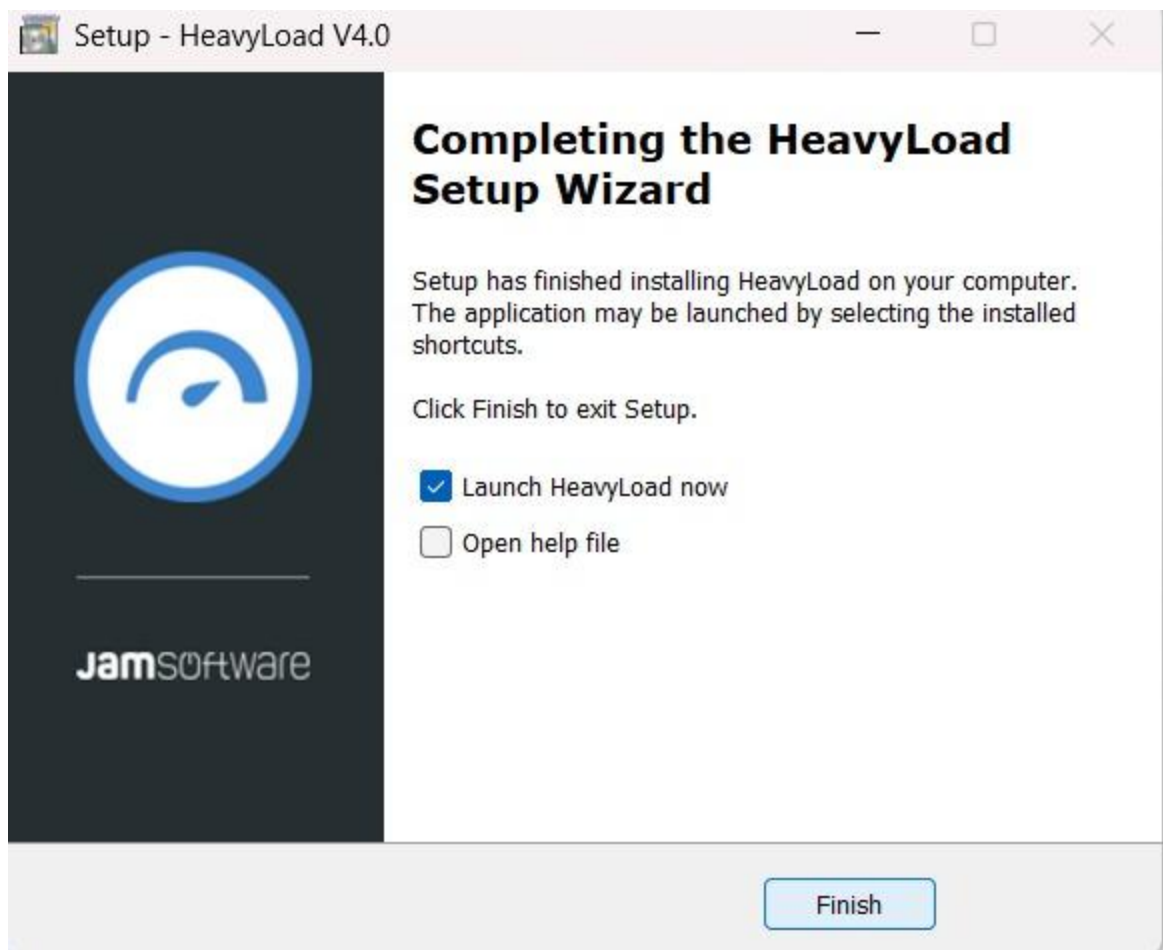
19. BIOS Information



20. Windows Directory & System Information



21. Virtual Memory & Page File Configuration



22. Status Progres

Windows: Fio Terinstal, Spesifikasi Tercatat

Linux: Dalam Persiapan

Progress: 70-75%

23. Dokumentasi

