

Ext4

The best marketing tool for your business.

KELOMPOK (insert group number here)

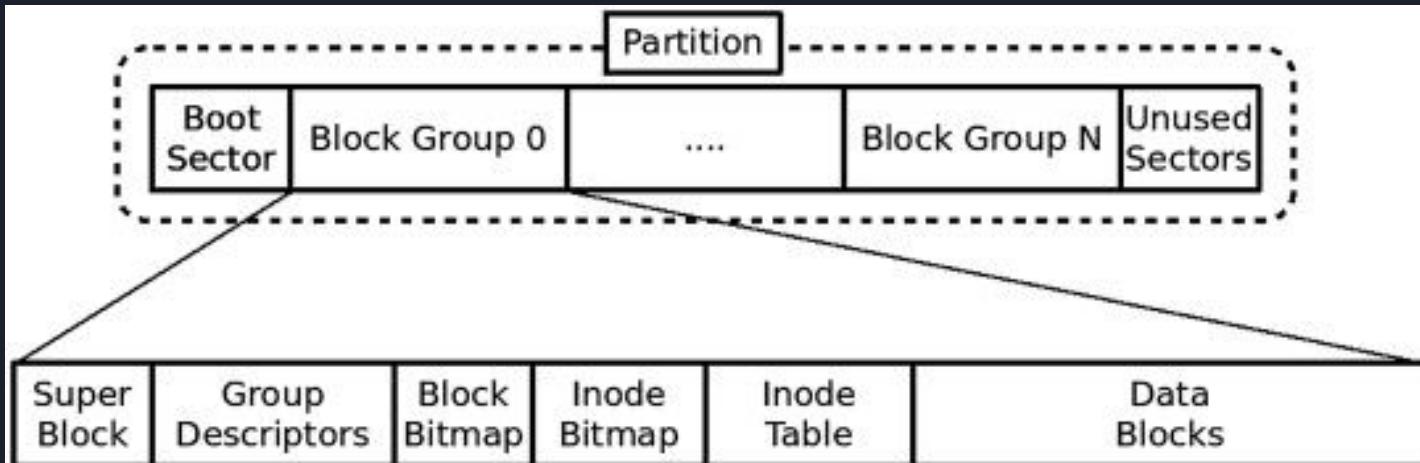
1. David
2. Ronan Sundjojo
3. Muhammad Mazaya
4. Ruben Pangestu
5. Marvel Rivandy



Introduction to EXT4

EXT4 (Extended File System 4) adalah generasi keempat dari seri filesystem yang diperluas, menggantikan EXT3. Sistem ini diperkenalkan untuk mengatasi keterbatasan dari EXT3 sambil mempertahankan keunggulan intinya. Beberapa fitur kuncinya meliputi dukungan filesystem yang besar (hingga 1 Exabyte), ukuran file yang lebih besar (hingga 16 Terabyte), extents, kompatibilitas mundur dengan EXT2 dan EXT3, serta berbagai peningkatan kinerja dan keandalan.

EXTX TOPOLOGY





EXTX TOPOLOGY

- **Sector** merupakan unit terkecil dalam hard disk
- ExtX menggunakan gabungan dari banyak **Sector** yang dinamakan **Block** sebagai unit terkecil
- ExtX menggabungkan banyak **Block** menjadi satu unit yang dinamakan **Block Group**
- **Innode** menyimpan metadata file (pointer data block, timestamp, permission)
- **Superblock** menyimpan metadata mengenai keseluruhan file system
- **Group Descriptor** merupakan metadata mengenai sebuah **block group**
- **Sparse Superblock** merupakan opsi agar **Superblock** dan **Group Descriptor** di duplikat pada **Block Group** tertentu saja



EXTX TOPOLOGY

- **Bitmap** digunakan untuk mengatur 0 dan 1 pada **inode** dan **block**
- **Inode** pada umumnya disimpan dalam dalam tabel yang tersimpan dalam setiap **block group**
- **Inode pointer** berarti pointer yang menunjuk pada data block mana file tersebut disimpan



EXT4 TOPOLOGY

Cara kerja dari EXT4 tidak jauh berbeda dari ExtX perbedaannya terletak pada:

- ***Superblock***, support 64 bit, error tracking, dan snapshot
- ***Block Group***
 - Size dinamis
 - ***Flex group*** : gabungan dari banyak ***group*** yang kecil (***inode / data block***)
- ***Extent***
 - Pada ExtX Setiap data block punya pointer masing-masing, Extent merepresentasikan urutan dari data block ke dalam 1 descriptor
- ***Inode***, tidak lagi terbatas pada ukuran dari 1 buah block

Difference between NTFS and EXT4

Feature	NTFS	Ext4
Operating System	Windows	Linux
Journaling	Yes (Advanced)	Yes (Advanced)
Maximum File Size	16 exabytes (EB)	16 terabytes (TB)
File and Volume Size	Extremely large	Large
File Permissions	ACLs (Access Control Lists)	POSIX-style permissions + ACLs
Compression and Encryption	Built-in (BitLocker)	Third-party or disk-level
Cross-Platform Support	Requires third-party drivers for full support	Native on Linux systems
File Attributes	Rich set of attributes and metadata	Supports various attributes
Fragmentation	Handles fragmentation well	Has mechanisms to reduce



Project objective





Target audience

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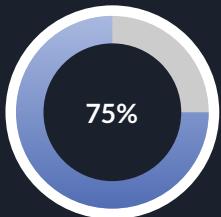




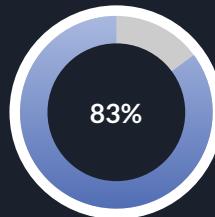
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Wendy Writer

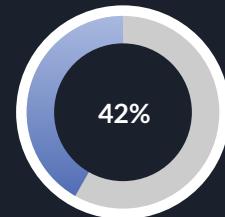
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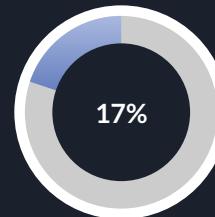
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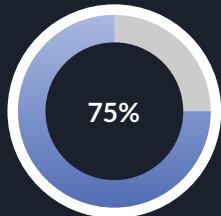




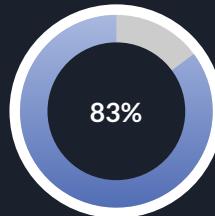
Persona 02

Berry Books

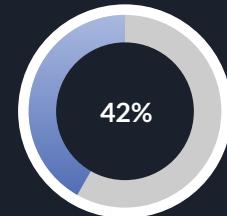
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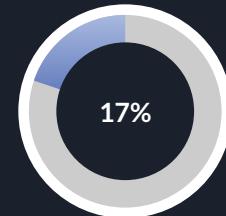
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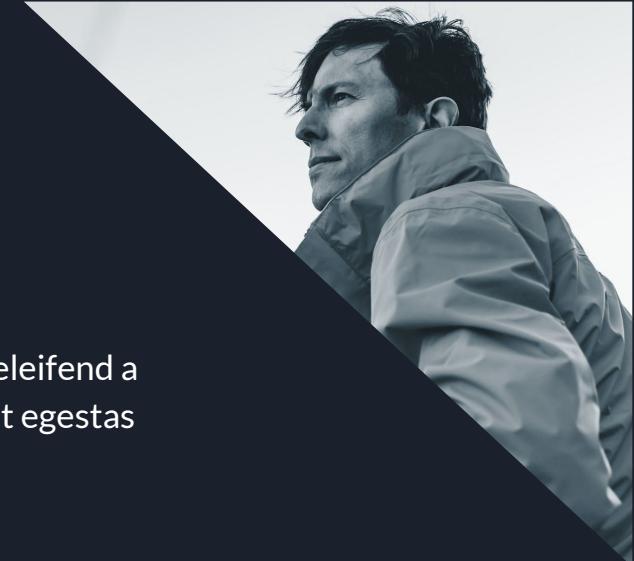
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Market trends

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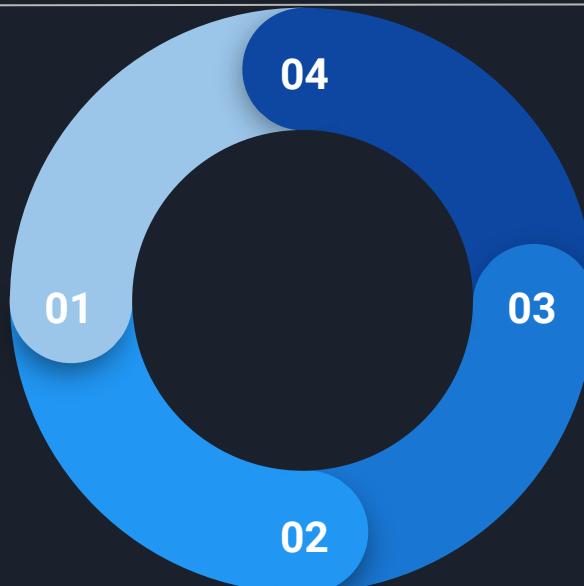
Cycle diagram

Prototype

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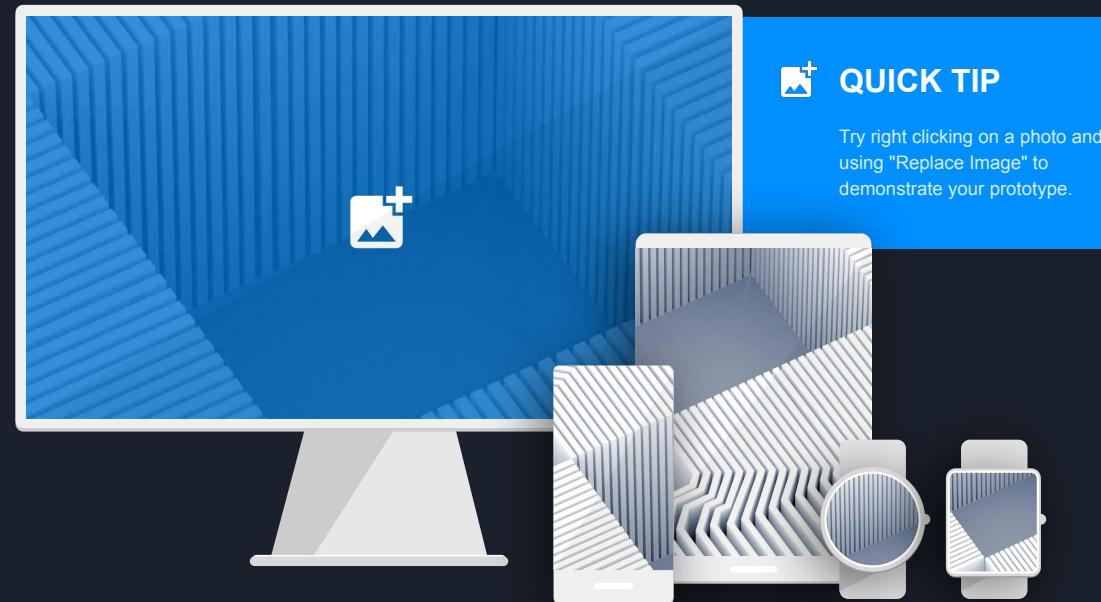
Get feedback

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Introducing: Lorem ipsum

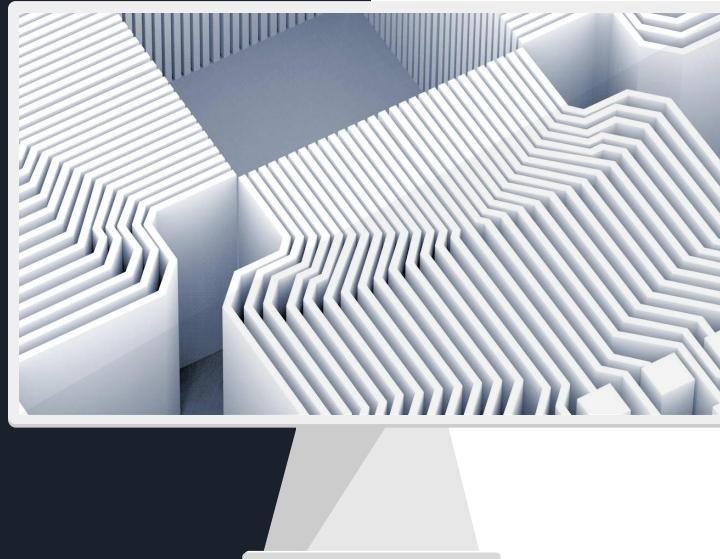
Showcase how your tools work across different devices





Spotlight on desktop

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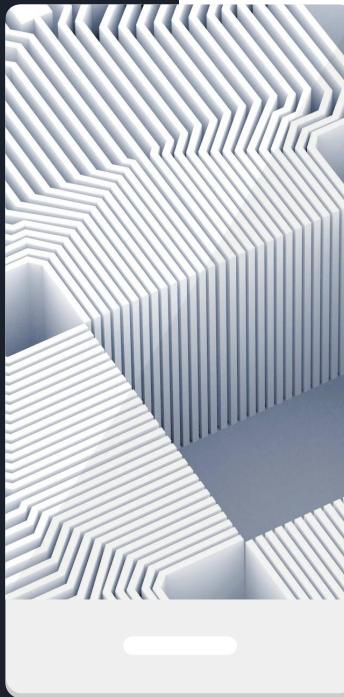


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Spotlight on mobile

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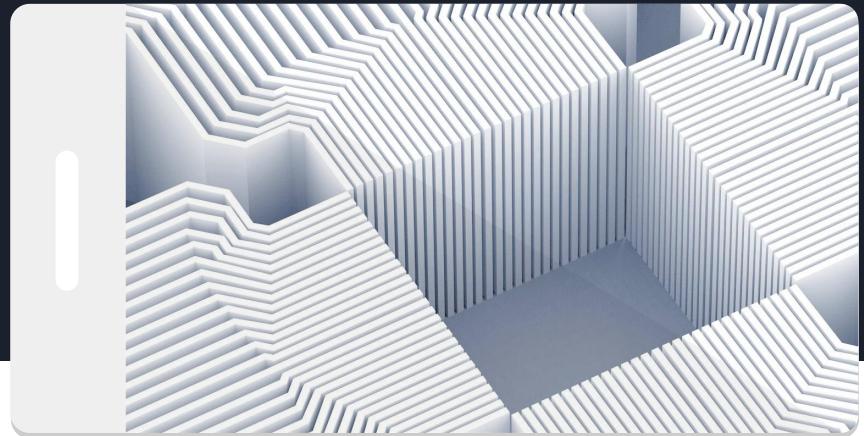
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Spotlight on landscape view on mobile

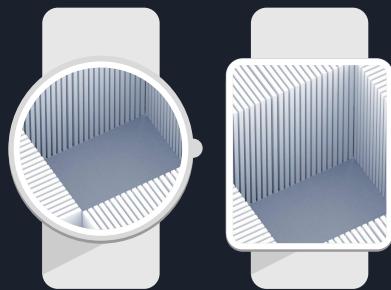
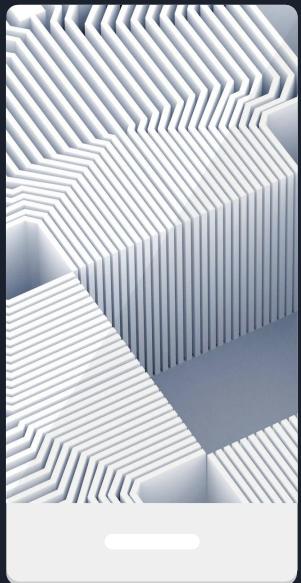
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Spotlight on wearables



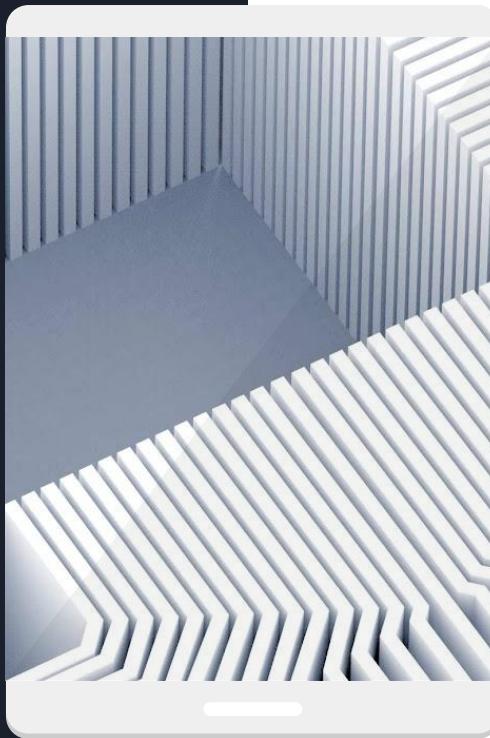
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Spotlight on tablet

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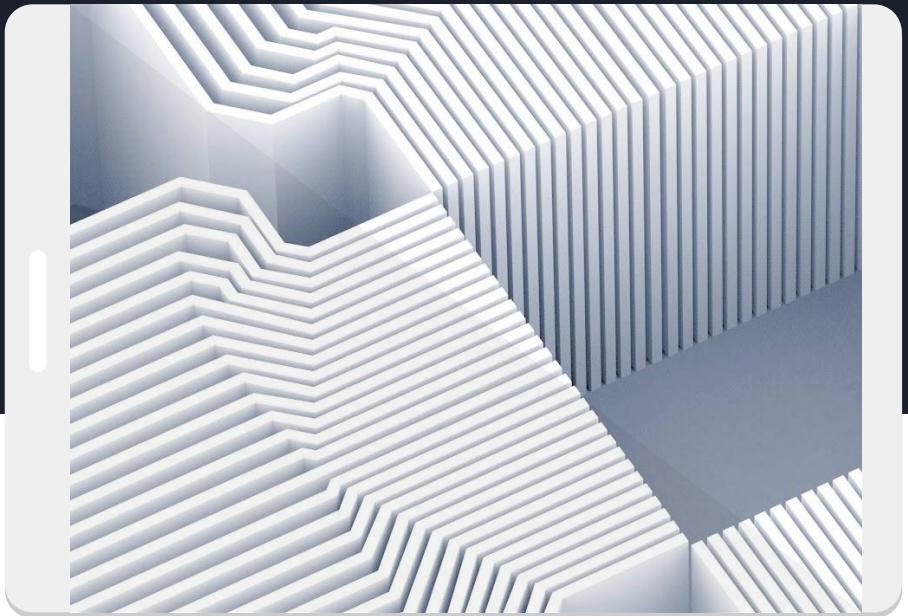
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Spotlight on landscape view on tablet

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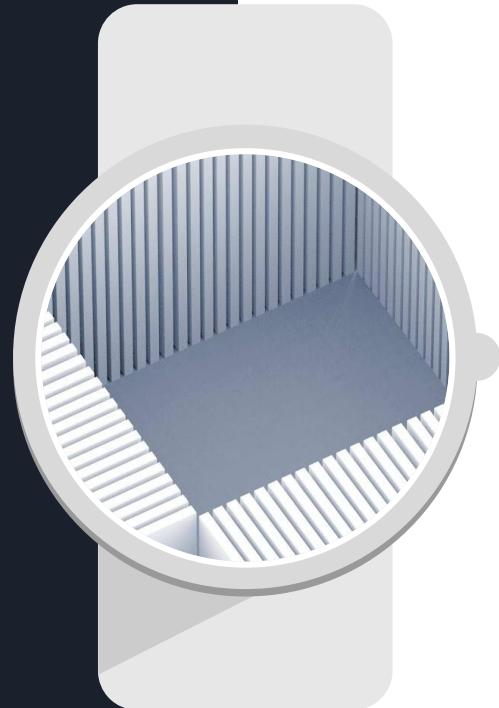
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Spotlight on wearables

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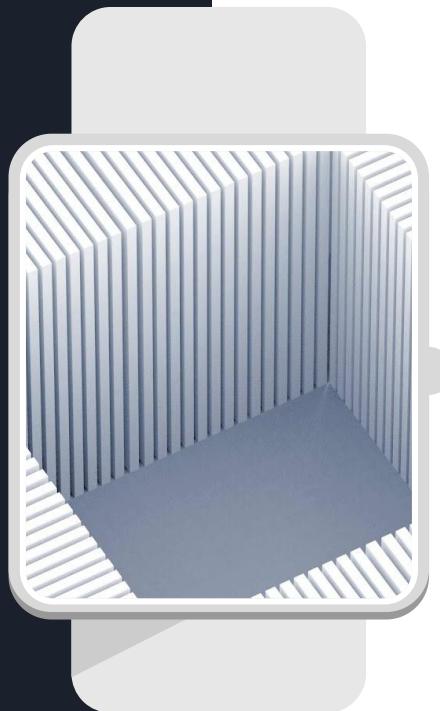


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Spotlight on wearables

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Project timeline



Thank you!

