



HP EliteBook 850 G8 Notebook PC

Work with each other even when you're apart

Teams work from many locations requiring a powerful, secure, and durable laptop that connects easily to keep you productive. Meet the demands of the multi-task, multi-place, enterprise-business workday with the HP EliteBook 850.



*Product image may differ from actual product

HP recommends Windows 11 Pro for business

Designed for you

- The HP EliteBook 850 is built for how you work with a new AI-based audio experience. This easy to carry ultralight and thin business PC comes with an 85-percent screen-to-body ratio and a quiet and comfortable keyboard to work on.

Protected by HP Wolf Security

- HP Wolf Security for Business creates a hardware-enforced, always-on, resilient defense. From the BIOS to the browser, above, in, and below the OS, these constantly evolving solutions help protect your PC from modern threats.¹

Pursue success

- Do your best work on the HP EliteBook 850 with Wi-Fi 6^{6,7}, long battery life, and a powerful 11th Gen Intel® Core™ processor.⁴
- Instantly block prying eyes' ability to view your screen with optional HP Sure View Reflect that produces a copper reflective finish when the screen is viewed from the side making it appear unreadable.⁷
- Driving support for more environmentally conscious products, we use ocean-bound plastics in the speaker enclosure and the outer box packaging is 100-percent sustainably sourced.^{8,9}
- AI-based noise reduction improves collaboration by applying industry-leading noise-filtering technology to all audio input, giving you an enhanced audio and video conferencing experience.¹¹
- Save time by automating driver, BIOS, and HP software updates with HP Patch Assistant. This new tool—available in the HP Manageability Integration Kit—helps simplify the monitoring of HP device health and security across your fleet.¹⁰
- Your "office" can be where you need it, letting you connect almost anywhere with the HP EliteBook 850 with optional support for up to 5G wireless broadband technology with 4x4 antennas that can deliver fast download and upload speeds.²
- Designed for people that always find a way to get work done, select configurations of the HP EliteBook 850 meet the high-performance, responsiveness, long battery life, and stunning visual standards for the Intel® Evo™ Platform.¹³
- Know if someone has tried to open the cover of your PC thanks to a tamper lock intrusion detection system that can require an administrator password to restart the system.¹⁴

HP EliteBook 850 G8 Notebook PC Specifications Table



*Product image may differ from actual product

Available Operating Systems	Windows 11 Pro ¹ Windows 11 Pro Education ¹ Windows 11 Home – HP recommends Windows 11 Pro for business ¹ Windows 11 Home Single Language ¹ Windows 11 Pro (Windows 11 Enterprise or Windows 10 Enterprise available with a Volume Licensing Agreement) ¹ FreeDOS (Device comes with Windows 10 and a free Windows 11 upgrade or may be preloaded with Windows 11. Upgrade timing may vary by device. Features and app availability may vary by region. Certain features require specific hardware (see Windows 11 Specifications).)
Processor family ⁷	11th Generation Intel® Core™ i7 processor; 11th Generation Intel® Core™ i5 processor
Available Processors ^{4,5,6,7,41}	Intel® Core™ i7-1165G7 (up to 4.7 GHz with Intel® Turbo Boost Technology, 12 MB L3 cache, 4 cores); Intel® Core™ i7-1185G7 (up to 4.8 GHz with Intel® Turbo Boost Technology, 12 MB L3 cache, 4 cores), supports Intel® vPro® Technology; Intel® Core™ i5-1135G7 (up to 4.2 GHz with Intel® Turbo Boost Technology, 8 MB L3 cache, 4 cores); Intel® Core™ i5-1145G7 (up to 4.4 GHz with Intel® Turbo Boost Technology, 8 MB L3 cache, 4 cores), supports Intel® vPro® Technology
Maximum memory	64 GB DDR4-3200 SDRAM ⁸ Dual channel support.
Memory slots	2 SODIMM
Internal storage	up to 512 GB Intel® PCIe® NVMe™ QLC M.2 SSD with 32 GB Intel® Optane™ memory H10 ^{9,10,11} 256 GB up to 2 TB PCIe® Gen3x4 NVMe™ M.2 SSD TLC ⁹ 256 GB up to 512 GB PCIe® Gen3x4 NVMe™ M.2 SED SSD TLC ⁹ up to 512 GB PCIe® NVMe™ Value M.2 SSD ⁹ up to 128 GB PCIe® Gen3x2 NVMe™ M.2 SSD TLC ⁹
Display size (diagonal, metric)	39.6 cm (15.6")
Display	15.6" diagonal, FHD (1920 x 1080), IPS, anti-glare, 250 nits, 45% NTSC; 15.6" diagonal, FHD (1920 x 1080), touch, IPS, anti-glare, 250 nits, 45% NTSC; 15.6" diagonal, FHD (1920 x 1080), IPS, anti-glare, 1000 nits, 72% NTSC, HP Sure View Reflect integrated privacy screen; 15.6" diagonal, FHD (1920 x 1080), IPS, anti-glare, 400 nits, low power, 72% NTSC ^{16,17,18}
	39.6 cm (15.6") diagonal, FHD (1920 x 1080), IPS, anti-glare, 1000 nits, 72% NTSC, HP Sure View Reflect integrated privacy screen; 39.6 cm (15.6") diagonal, FHD (1920 x 1080), IPS, anti-glare, 400 nits, low power, 72% NTSC; 39.6 cm (15.6") diagonal, FHD (1920 x 1080), IPS, anti-glare, 250 nits, 45% NTSC; 39.6 cm (15.6") diagonal, FHD (1920 x 1080), touch, IPS, anti-glare, 250 nits, 45% NTSC ^{16,17,18}
Available Graphics	Integrated: Intel® Iris® Xe Graphics ¹⁵ Discrete: NVIDIA® GeForce® MX450 (2 GB GDDR6 dedicated) ⁴⁴ (Support HD decode, DX12, HDMI 2.0b, HDCP 2.3.)
Audio	Audio by Bang & Olufsen, dual stereo speakers, 3 multi array microphone
Wireless technologies	(Compatible with Miracast-certified devices.)
Ports and Connectors	2 Thunderbolt™ 4 with USB4 Type-C® 40Gbps signaling rate (USB Power Delivery, DisplayPort™ 1.4); 2 SuperSpeed USB Type-A 5Gbps signaling rate (1 charging); 1 Stereo headphone/microphone combo jack; 1 HDMI 2.0b; 1 AC power ³² ; (HDMI cable sold separately.); Optional Ports: 1 Smartcard reader (optional)
Input devices	HP Premium Keyboard – spill-resistant, backlit keyboard; Touchpad with multi-touch gesture support;
Communications	HP Module with NXP NFC Controller NPC300 I2C NCI; Near Field Communication (NFC) module ; Intel® AX201 Wi-Fi 6 (2x2) and Bluetooth® 5 combo, non-vPro®; Intel® AX201 Wi-Fi 6 (2x2) and Bluetooth® 5 combo, vPro® ^{12,13,14} ;
Camera	720p HD camera; IR Camera (select models) ¹⁶
Software	HP Connection Optimizer; HP Image Assistant; HP Hotkey Support; HP Noise Cancellation Software; HP PC Hardware Diagnostics (UEFI); HP Support Assistant; Buy Office (Sold separately); HP Power Manager; myHP; HP Privacy Settings; HSA Fusion for Commercial; HSA Telemetry for Commercial; Touchpoint Customizer for Commercial; HP Notifications; HP QuickDrop; HP Wireless Button Driver; ^{19,20}
Available software	HP Smart Support ⁵⁷
Security management	Absolute persistence module; HP DriveLock and Automatic DriveLock; HP Secure Erase; Power-on authentication; Preboot authentication; TPM 2.0 embedded security chip shipped with Windows 10 (Common Criteria EAL4+ Certified); HP Sure Click; HP Sure Sense; Support for chassis padlocks and cable lock devices; HP Sure Start Gen6; HP Sure Run Gen3; HP Sure Recover Gen3; HP Sure Admin; HP BIOSphere Gen6; ^{23,24,25,26,27,28,29,30,31,33}
Security Software Licenses	HP Wolf Pro Security Edition ⁵⁶
Fingerprint reader	Fingerprint sensor (select models)
Management features	HP Driver Packs; HP System Software Manager (SSM); HP BIOS Config Utility (BCU); HP Client Catalog; HP Manageability Integration Kit Gen4 ^{21,22}
Power	HP Smart 65 W External AC power adapter; HP Smart 65 W EM External AC power adapter; HP Smart 45 W External AC power adapter; HP Smart 65 W USB Type-C® adapter ^{34,35}
Battery type	HP Long Life 3-cell, 56 Wh Li-ion ^{34,45}
Battery life	Up to 14 hours and 45 minutes ⁴⁰
Dimensions	14.01 x 9.2 x 0.75 in; 35.6 x 23.37 x 1.92 cm
Weight	Starting at 3.91 lb (touch); Starting at 3.71 lb (non-touch); Starting at 1.77 kg (touch); Starting at 1.68 kg (non-touch); (Weight will vary by configuration.)
Ecolabels	ENERGY STAR® certified; EPEAT® registered where applicable. EPEAT registration varies by country. See www.epeat.net for registration status by country. ³⁷
Sustainable impact specifications	Ocean-bound plastic in speaker enclosure; 35% post-consumer recycled plastic; Low Halogen; Bulk packaging available ^{38,42,43}
Warranty	HP Services offers 1-year and 3-year limited warranties and 90 day software limited warranty options depending on country. Batteries are covered with the same warranty as the original product.

HP EliteBook 850 G8 Notebook PC

Accessories and services (not included)

HP Nano Keyed Cable Lock



Lock your notebook or tablet down in the office and high-traffic public areas by tethering it to a secure surface with the thin profile HP Nano Keyed Cable Lock.

Product number: 1A39AA

HP 635 Multi-Device Wireless Mouse



On the road. In the office. With one device or many. However you work, and whatever you work on, this is one mouse that's ready for anything. Comfortable and customizable with programmable buttons, it also includes Bluetooth® connectivity for added flexibility.

Product number: 1D0K2AA

¹ Mouse has to be paired with the devices; all devices have to be on the same network and have HPAC software installed.

² List of apps: Zoom, Sketchup, Adobe photoshop, Adobe Illustrator.

HP Thunderbolt Dock 120W G2



Reinvent docking and boost productivity with our most versatile Thunderbolt™ dock, the small, sophisticated HP Thunderbolt Dock G2. Designed for workspace flexibility and network manageability¹, it delivers USB-C™² device connectivity and optional integrated audio.³

Product number: 2UK37AA

¹ Advanced manageability features such as WoL and MAC Address Pass-Through in all power states supported only on HP Pro x2 G12 G2, HP EliteBook 1040 G4, HP EliteBook x360 1020, 1030 G2, 800 G5, 700 G5, 600 G4, 400 G5, and G4 HP Mobile Workstations as of January 17th, 2018.

² Notebooks must be able to support USB-C™ power, video, and USB-C™ and Thunderbolt™ industry standards.

HP Executive 15.6 Top Load



Take on the world in style with an HP Executive Series notebook case that provides a polished, professional look. The sleek profile and premium materials make a bold statement and keep your devices and data on lockdown. Traveling is a breeze and device-charging is easy—even from outside the bag.

Product number: 6KD06AA

HP Wired Desktop 320MK Mouse and Keyboard



Work efficiently and enhance your everyday productivity with the reliable HP Wired Desktop 320MK Mouse and Keyboard.

Product number: 9SR36AA

¹ External power supplies, power cords, cables and peripherals are not Low Halogen. Service parts obtained after purchase may not be Low Halogen.

² Select household wipes can be safely used to clean HP Elite Presenter Mouse, HP Premium keyboard (wireless and USB) and HP desktop wired 320 KB/Mouse up to 1,000 wipes: See wipe manufacturer's instructions for disinfecting and the HP cleaning guide for HP tested wipe solutions at How to Sanitize Your HP Device Whitepaper.

HP USB-C to RJ45 Adapter



Easily connect to your network through your notebook or tablet's USB-C™ power-in port with the HP USB-C™ to RJ45 Adapter.

Product number: V7W66AA

Additional Services (Not included)



HP Care Pack

HP Next Business Day Onsite Hardware Support with Active Care for Notebook;U09XDE (for 1 year platforms);U02KRE (for 3 year platforms)

HP EliteBook 850 G8 Notebook PC

Messaging Footnotes

- ¹ HP Wolf Security for Business requires Windows 10, includes various HP security features and is available on HP Pro, Elite, Workstation, and RPO5 products. See product details for included security features and OS requirements.
- ² 5G module has an expected availability of March 2021 and is an optional feature that must be configured at purchase. AT&T and T-Mobile networks supported in the U.S. Module designed for 5G networks as carriers deploy Evolved-Universal Terrestrial Radio Access New Radio Dual Connectivity (ENDC) with both 100MHz of 5G NR and LTE channel bandwidth, using 256QAM 4x4 as defined by 3GPP, requires activation and separately purchased service contract. Check with service provider for coverage and availability in your area. Connection, upload and download speeds will vary due to network, location, environment, network conditions, and other factors. 5G not available on all products, in all regions. Backwards compatible to 4G LTE and 3G HSPA technologies. 5G module planned to be available in select countries, where carrier supported.
- ³ 4G LTE module is optional and must be configured at the factory. Module requires activation and separately purchased service contract. Backwards compatible to HSPA 3G technologies. Check with service provider for coverage and availability in your area. Connection, upload, and download speeds will vary due to network, location, environment, network conditions, and other factors. 4G LTE not available on all products, in all regions.
- ⁴ Multicores designed to improve performance of certain software products. Not all customers or software applications will necessarily benefit from use of this technology. Performance and clock frequency will vary depending on application workload and your hardware and software configurations. Intel's numbering, branding and naming is not a measurement of higher performance.
- ⁵ Wireless access point and internet service required and sold separately. Availability of public wireless access points limited. Wi-Fi 6 is backwards compatible with prior 802.11 specs. These specifications for Wi-Fi 6 (802.11ax) are draft and are not final. If the final specifications differ from the draft specifications, it may affect the ability of the laptop to communicate with other 802.11ax devices.
- ⁶ HP SureView Reflect integrated privacy screen is an optional feature that must be configured at purchase and is designed to function in landscape orientation.
- ⁷ Speaker enclosure component made with 5% ocean bound plastic.
- ⁸ 100% outer box packaging made from sustainably sourced certified and recycled fibers. Fiber cushions made from 100% recycled wood fiber and organic material. Any plastic cushions are made from >90% recycled plastic.
- ⁹ HP Patch Assistant available on select HP PCs with the HP Manageability Kit that are managed through Microsoft System Center Configuration Manager. HP Manageability Integration Kit can be downloaded from <http://www8.hp.com/us/en/ads/clients/management/bvview.html>.
- ¹⁰ Sold separately or as an optional feature.
- ¹¹ Select SKUs qualify as an Intel® Evo™ platform.
- ¹² HP Tamper Lock must be enabled by the customer or your administrator.

Technical Specifications Footnotes

- ¹ Not all features are available in all editions or versions of Windows. Systems may require upgraded and/or separately purchased hardware, drivers, software or BIOS update to take full advantage of Windows functionality. Windows is automatically updated and enabled. High speed internet and Microsoft account required. ISP fees may apply and additional requirements may apply over time for updates. See <http://www.windows.com>.
- ² Multicores designed to improve performance of certain software products. Not all customers or software applications will necessarily benefit from use of this technology. Performance and clock frequency will vary depending on application workload and your hardware and software configurations. Intel's numbering, branding and naming is not a measurement of higher performance.
- ³ Processor speed denotes maximum performance mode; processors will run at lower speeds in battery optimization mode.
- ⁴ Intel® Turbo Boost performance varies depending on hardware, software and overall system configuration. See www.intel.com/technology/turboboost for more information.
- ⁵ In accordance with Microsoft's support policy, HP does not support the Windows 8 or Windows 7 operating system on products configured with Intel and AMD 7th generation and forward processors or provide any Windows 8 or Windows 7 drivers on <http://www.support.hp.com>.
- ⁶ Due to the non-industry standard nature of some third-party memory modules, we recommend HP branded memory to ensure compatibility. If you mix memory speeds, the system will perform at the lower memory speed.
- ⁷ For storage drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 30 GB (for Windows 10) is reserved for system recovery software.
- ⁸ Intel® Optane™ memory is sold separately. Intel® Optane™ memory system acceleration does not replace or increase the DRAM in your system. Available for HP commercial desktops and notebooks and for select HP workstations (HP Z240 Tower/FF, Z2 Mini, ZBook Studio, i5 and i7 G5) and requires a SATA HDD, 7th Gen or higher Intel® Core™ processor or Intel® Xeon® processor E3-1200 V6 product family or higher; BIOS version with Intel® Optane™ supported, Windows 10 version 1703 or higher, M.2 type 2280-S1-B-M connector on a PCH Remapped PCIe Controller and Lanes in x2 or x4 configuration with B-M keys that meet NVMe™ Spec 1.1, and an Intel® Rapid Storage Technology (Intel® RST) 15.5 driver.
- ⁹ Intel® Optane™ memory system acceleration does not replace or increase the DRAM in your system. Requires 8th Gen or higher Intel® Core™ processor, BIOS version with Intel® Optane™ supported, Windows 10 64-bit, and an Intel® Rapid Storage Technology (Intel® RST) driver.
- ¹⁰ Wireless access point and internet service required and sold separately. Availability of public wireless access points limited. These specifications for the 802.11ac WLAN are draft specifications and are not final. If the final specifications differ from the draft specifications, it may affect the ability of the notebook to communicate with other 802.11ac WLAN devices.
- ¹¹ WWAN module is an optional feature, requires factory configuration and requires separately purchased service contract. Check with service provider for coverage and availability in your area. Connection speeds will vary due to location, environment, network conditions, and other factors. 4G LTE not available on all products, in all regions.
- ¹² Miracast is a wireless technology your PC can use to project your screen to TVs, projectors, and streaming.
- ¹³ Intel® Iris® X Graphics capabilities require system to be configured with Intel® Core™ i5 or i7 processors and dual channel memory. Intel® Iris® X Graphics with Intel® Core™ i5 or i7 processors and single channel memory will only function as UHD graphics.
- ¹⁴ HD content required to view HD images.
- ¹⁵ Resolutions are dependent upon monitor capability, and resolution and color depth settings.
- ¹⁶ HP SureView Reflect integrated privacy screen is an optional feature that must be configured at purchase and is designed to function in landscape orientation.
- ¹⁷ HP Connection Optimizer requires Windows 10.
- ¹⁸ HP Support Assistant requires Windows and Internet access.
- ¹⁹ HP Driver Packs not preinstalled, however available for download at <http://www.hp.com/go/clients/management>.
- ²⁰ HP Manageability Integration Kit can be downloaded from <http://www8.hp.com/us/en/ads/clients/management/bvview.html>.
- ²¹ Absolute firmware module is shipped turned off and can only be activated with the purchase of a license subscription and full activation of the software agent. License subscriptions can be purchased for terms ranging multiple years. Service is limited, check with Absolute for availability outside the U.S. Certain conditions apply. For full details visit: <https://www.absolute.com/about/legal/agreements/absolute/>
- ²² HP Secure Erase for the methods outlined in the National Institute of Standards and Technology Special Publication 800-88 "Clear" sanitation method. HP Secure Erase does not support platforms with Intel® Optane™.
- ²³ Firmware TPM is version 2.0.
- ²⁴ HP SureClick requires Windows 10. See https://bit.ly/2PrLT6A_SureClick for complete details.
- ²⁵ HP SureSense requires Windows 10.
- ²⁶ HP SureStart Gen6 is available on select HP PCs.
- ²⁷ HP SureRun Gen3 is available on select Windows 10 based HP Pro, Elite and Workstation PCs with select Intel® or AMD processors.
- ²⁸ HP SureRecover Gen3 is available on select HP PCs and requires an open network connection. You must back up important files, data, photos, videos, etc. before using HP SureRecover to avoid loss of data.
- ²⁹ HP SureAdmin requires Windows 10, HP BIOS, HP Manageability Integration Kit from <http://www.hp.com/go/clients/management> and HP SureAdmin Local Access Authenticator smartphone app from the Android or Apple store.
- ³⁰ SuperSpeed USB 20Gbps is not available with Thunderbolt™ 4.
- ³¹ HP BIOSphere Gen6 is available on select HP Pro and Elite PCs. See product specifications for details. Features may vary depending on the platform and configurations.
- ³² Recharges the battery up to 50% within 30 minutes when the system is off or in standby mode. Power adapter with a minimum capacity of 65 watts is required. After charging has reached 50% capacity, charging will return to normal. Charging time may vary +/- 10% due to system tolerance.
- ³³ Availability may vary by country.
- ³⁴ HP CarePacks are sold separately. Service levels and response times for HP CarePacks may vary depending on your geographic location. Service starts on date of hardware purchase. Restrictions and limitations apply. For details, visit www.hp.com/go/pc. HP services are governed by the applicable HP terms and conditions of service provided or indicated to Customer at the time of purchase. Customer may have additional statutory rights according to applicable local laws, and such rights are not in any way affected by the HP terms and conditions of service or the HP Limited Warranty provided with your HP Product.
- ³⁵ Based on US EPEAT® registration according to IEEE 1680.1-2018 EPEAT®. Status varies by country. Visit www.epeat.net for more information.
- ³⁶ External power supplies, power cords, cables and peripherals are not Low Halogen. Service parts obtained after purchase may not be Low Halogen.
- ³⁷ Windows 10 MM18 battery life will vary depending on various factors including product model, configuration, loaded applications, features, use, wireless functionality, and power management settings. The maximum capacity of the battery will naturally decrease with time and usage. See www.bapco.com for additional details.
- ³⁸ For full Intel® vPro™ functionality, Windows, vPro supported processor, vPro enabled Q370 chipset or higher and vPro enabled WLAN card are required. Some functionality, such as Intel Active management technology and Intel Virtualization technology, requires additional 3rd party software in order to run. Availability of future "virtual appliances" applications for Intel vPro technology is dependent on 3rd party software providers. Compatibility of this generation of Intel vPro technology-based hardware with future "virtual appliances" is yet to be determined.
- ³⁹ Percentage of ocean-bound plastic contained in each component varies by product.
- ⁴⁰ Recycled plastic content percentage is based on the definition set in the IEEE 1680.1-2018 standard.
- ⁴¹ Integrated graphics depends on processor. NVIDIA® Optimus™ technology requires an Intel processor, plus an NVIDIA® GeForce® discrete graphics configuration and is available on Windows 10 Pro OS. With NVIDIA® Optimus™ technology, full enablement of all discrete graphics video and display features may not be supported on all systems (e.g. OpenGL applications will run on the integrated GPU or the APU as the case may be).
- ⁴² Actual battery Watt-hours (Wh) will vary from design capacity. Battery capacity will naturally decrease with shelf life, time, usage, environment, temperature, system configuration, loaded apps, features, power management settings and other factors.
- ⁴³ HP Wolf Pro Security Edition (including HP SureClick Pro and HP SureSense Pro) is available preloaded on select SKUs and, depending on the HP product purchased, includes a paid 1-year or 3-year license. The HP Wolf Pro Security Edition software is licensed under the license terms of the HP Wolf Security Software - End-User License Agreement (EULA) that can be found at: https://support.hp.com/us-en/document/sh_3875769-3873014-16 as that EULA is modified by the following: "7. Term. Unless otherwise terminated earlier pursuant to the terms contained in this EULA, the license for the HP Wolf Pro Security Edition (HP SureSense Pro and HP SureClick Pro) is effective upon activation and will continue for either a twelve (12) month or thirty-six (36) month license term ("Initial Term"). At the end of the Initial Term you may either (a) purchase a renewal license for the HP Wolf Pro Security Edition from HP.com, HP Sales or an HP Channel Partner, or (b) continue using the standard versions of HP SureClick and HP SureSense at no additional cost with no future software updates or HP Support.
- ⁴⁴ HP Smart Support automatically collects the telemetry necessary upon initial boot of the product to deliver device-level configuration data and health insights and is available preinstalled on select products, thru HP Factory Configuration Services; or it can be downloaded. For more information about how to enable HP Smart Support or for download, please visit <http://www.hp.com/smart-support>.

Sign up for updates hp.com/go/getupdated

© Copyright 2023 HP Development Company, L.P. The information contained herein is subject to change without notice. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

Intel, Core and Intel vPro are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries. USB Type-C® and USB-C® are registered trademarks of USB Implementers Forum. ENERGY STAR is a registered trademark of the U.S. Environmental Protection Agency. All other trademarks are the property of their respective owners.

January 2023

