

SONY

DSC-RX100M7/B

RX100 VII Cyber-shot Digital Camera

RX100 VII Premium Compact Camera with 1.0-type 20.1MP stacked CMOS sensor, up to 60 times/sec. AF/AE calculations and up to 20 fps Blackout-free Shooting, up to 90fps Single Burst Shooting, 357-point focal-plane phase-detection AF, 0.02 sec high AF speed, Real-time Tracking and Real-time Eye AF, 24-200mm F2.8-F4.5 zoom lens, 4K HDR (HLG) video recording, Active mode image stabilization in 4K movie, and microphone jack



Key Features

ZEISS® Vario-Sonnar T* 24-200mm¹ F2.8-F4.5 high magnification zoom Lens

The ZEISS® Vario-Sonnar T* 24-200mm¹ F2.8-4.5 zoom lens covers a broad zoom range equivalent to two standard zoom lenses (24-70mm and 70-200mm), all in a very compact size. It's configured with eight aspherical lens elements to achieve maximum resolution, clarity and contrast across the entire zoom range, and all the way out to the edge of the image. Four of Sony's original AA (advanced aspherical) elements help minimize spherical, coma and chromatic aberrations.

World's fastest² hybrid AF system

The fast, highly accurate autofocus can achieve a remarkable 0.02-sec.³ acquisition speed, the world's fastest², to capture fleeting moments with precision. A total of 357 focal-plane phase-detection AF points covering approx. 68% of the image area – work in conjunction with 425 contrast-detection AF points and High-density AF Tracking Technology to follow even erratically moving subjects reliably.

Up to 20 fps⁴ Blackout-free Shooting, up to 60 times/sec. AF/AE calculations

The new image sensor offers continuous shooting at up to 20fps⁴, and the camera tracks subjects with AF/AE calculations at up to 60 times per second⁵, even when they are moving erratically or at high speed. Blackout-free Shooting⁶ lets you track your subject's movement without interruption on the camera's LCD display or viewfinder screen just as if you were following with the naked eye.

Single Burst Shooting⁷ captures 7 shots at up to 30/60/90 fps in JPEG/RAW

The new Single Burst Shooting⁷ function will capture the tiniest slices of daily life, such as the very instant a tennis ball hits the racket, and turn them into works of art. Take seven shots in rapid succession at selectable speeds of 90fps, 60fps or 30fps, all triggered by a single press of the shutter button. Even fast-moving subjects can be captured thanks to the Anti-distortion Shutter, in RAW as well as JPEG image formats.

AI-based⁸ Real-time Tracking for stills and movies, and Touch Tracking

Real-time Tracking uses subject-recognition algorithms (AI)⁸ that draw on color, pattern (brightness), subject distance (depth) and face/eye information to track subjects wherever they move. Maintaining a constant, steady focus on a moving subject helps capture every important moment of action as it happens, whether taking stills or movies. Tracking can also be initiated through Touch Tracking, for both stills and movies.

Real-time Eye AF for human (stills and movies), and for animal⁹ (stills only)

Real-time Eye AF detects subject's eyes and maintains focus as the subject moves, leaving you free to compose your shot. The subject's eyes are detected with half-press of the shutter, and it's possible to select either the left or right eye of the subject. It can be used in conjunction with Real-time Tracking, in which case the focus frame can seamlessly switch between the subject's face and eyes as the subject moves. Real-time Eye AF for Animals⁹ is also supported, helping to produce better pet portraits and wildlife shots.

Newly developed 20.1MP¹⁰ 1" Exmor RS® stacked BSI CMOS sensor w/ DRAM

The newly developed 20.1MP¹⁰, 1.0-type stacked CMOS image sensor uses back-illumination technology with high light-collection efficiency and realizes fast readout to support the camera's extraordinary responsiveness. The standard ISO range is 100-12800, expanded to ISO 64/80 for stills. The camera also takes advantage of improved filters to help achieve more realistic textures and color. Human skin tones and the vivid colors of flowers are more accurately reproduced.

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4K HDR (HLG) video recording¹¹, S-Log3 support, and Interval Shooting

RX100 VII records 4K movies¹¹ with full pixel readout and no pixel binning, with oversampling for high image quality. Extended continuous video recording is available when setting Auto Power OFF Temp. function to High. HLG (Hybrid Log-Gamma) compatibility enables HDR capture and immediate playback without post-production, by connecting the camera to an HDR (HLG) compatible Sony TV via a USB cable. The wide color space and dynamic range available using S-Log profiles provides more creative freedom in post-production. Interval Shooting is now available within the camera, with AE tracking to reduce exposure variations. The resulting still images can be edited into a time-lapse movie on a PC.

Microphone jack, vertical-position data recording, Super slow-motion up to 960fps⁸

Though very compact, RX100 VII includes a standard 3.5mm microphone input jack enabling the use of high-end microphones for professional audio capture for movies and vlogs. The camera supports movie recording in vertical format with embedded metadata indicating the camera's orientation¹⁶. This means that movie clips in this format that are transferred to smartphones can be played back and used as is, without needing to rotate them from horizontal format.

Active mode image stabilization in 4K video recording, and Movie Edit add-on compatible

RX100 VII now supports "Active" mode image stabilization for 4K movies, combining optical and electronic stabilization methods for compensation up to eight times more effective¹³ than the standard mode. Intelligent Active mode with Full HD recording provides smoother stabilization even for shooting while walking. The Movie Edit add-on mobile app¹⁴ helps achieve smoothness similar to using a gimbal¹⁵.

Retractable OLED w/ EVF benefits and optical viewfinder immediacy

The RX100 VII maintains the convenient pocket-sized design of the RX100 family and is equipped with a high-contrast 2.35 million dot XGA OLED Tru-Finder™ electronic viewfinder, ensuring true-to-life image preview and playback functionality. With a single push, the EVF conveniently pops-up and automatically extends the eye-piece. It features optics with ZEISS® T* coating that greatly reduces reflections.

High speed Anti-Distortion Shutter

The high speed - up to 1/32,000 sec. - Anti-Distortion Shutter, minimizes the "rolling shutter" effect commonly experienced with fast moving subjects. This blazingly fast shutter speed also allows the camera to capture sharp, crystal clear images with a wide open aperture at brightness levels. Shooting at wide aperture with fast shutter speed allows photographers and videographers to capture beautiful content with sharply focused subjects and defocused backgrounds under some of the most difficult, bright lighting conditions.

Enhanced pro-video functions and NTSC/ PAL switchable

The RX100 VII includes professional movie functions such as; Picture Profile, S S-Log3/S-Gamut3, TC/UB (time code / user bit), Rec Control, Dual Video Recording, marker display function, etc. that have typically been available only in professional video cameras. You also have the choice of region setting between NTSC and PAL movie frame rates.

Super slow-motion movie¹² HFR (High frame rate)

See the unseen with super speed HFR (High Frame Rate). The RX100 VII can capture super slow motion HFR movie¹² at up to 40x slower than real time. You can choose from 960fps, 480fps or 240fps to playback in XAVC S at 1920 x 1080, in either 60p, 30p or 24p. Choose between "quality priority" (4 sec.). There's also an option to set "start trigger" or "end trigger" which will start capturing movie before or after you press the movie rec. button so you can time those split-second moments perfectly.

HDMI® clear output for uncompressed video recordings

Clean, uncompressed 8-bit 4:2:2 4K or HD movie signal can be transferred to an external monitor/recorder connected to the RX100 VII via the HDMI® terminal. Video can be recorded simultaneously to internal media and uncompressed video to the external recorder in real time.

Selfie-ready multi-angle Xtra Fine™ LCD

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Selfies have never been easier with a beautiful 3" (921k dots) LCD Display that rotates in multiple angles. This also makes it easy to photograph over crowds or low to capture pets eye to eye by swinging up approx. 180° and down approx. 90°. The large display delivers brilliant-quality still images and movies while enabling easy focusing operation. Monitor Auto OFF function boosts max number of still images by up to 30%.

Wi-Fi®/NFC™/QR code for easy file transfer and remote control

Easily connect with NFC or QR code (for non-NFC devices) to smartphones or tablets with the built-in Wi-Fi® and Sony's Imaging Edge Mobile™ application available for Android™ and iOS platforms. Control your camera or transfer files to your device for fast and easy sharing without the need of a computer. When you're done, you can use the free software to sort and manage your stills and video with or view and edit your RAW file with either Sony's Imaging Edge software or Capture One Express (for Sony).

Comfortable control ring for manual operation

A unique control ring around the lens works in combination with an intuitive, display interface for direct control over settings. The control ring can be assigned to adjust various features (at various values) from basics like zooming and aperture to creative functions like Picture Effect. Moreover, it turns smoothly and seamlessly, allowing quiet, click-free usage while shooting movies including a new step-zoom function that enables instant selection of commonly used focal lengths.

Power supply via USB

The RX100 VII can be powered via USB connection to AC adaptor, a PC or mobile battery. This conserves the camera's battery, allowing you extended use of the camera without worrying that the battery will run out. When the camera is turned off, the battery can be charged via the same connection.

Specifications

Camera	
Electronic Shutter	Single Shooting: iAuto (4" - 1/32000) / Program Auto(30" - 1/32000) / Manual (30" - 1/32000) / Aperture Priority (30" - 1/32000) / Shutter Priority (30" - 1/32000) Continuous Shooting / Single Burst Shooting: 1/8 - 1/32000
Continuous Shooting Speed (max) (Max number of recoded pixels)	(AUTO / Electronic Shutter) Continuous Shooting Hi: approx. 20 fps, Continuous Shooting Mid: approx. 10 fps, Continuous Shooting Low: approx. 5.0 fps, Single Burst Shooting Hi: approx. 90fps*, Single Burst Shooting Mid: approx. 60fps*, Single Burst Shooting Low: approx. 30fps*
Creative Style	Standard, Vivid, Neutral, Clear, Deep, Light, Portrait, Landscape, Sunset, Night Scene, Autumn Leaves, Black & White, Sepia, Style Box
Drive modes	Single, Continuous shooting, Single Burst Shooting, Self-timer, Self-timer (cont.), Cont.-bracketing*, Single-bracketing*, White balance bracketing*, DRO bracketing*
Dynamic Range Functions	Off, Dynamic Range Optimizer (Auto/Level 1-5), Auto High Dynamic Range (Auto Exposure Difference, Exposure Difference Level (1.0-6.0EV, 1.0EV step)
Exposure Compensation	+/- 3.0 EV, 1/3 EV step
Exposure Control	Yes
Focus Area	Wide (357 points (phase-detection AF), 425 points (contrast-detection AF) / Zone / Center / Flexible Spot (S/M/L) / Expanded Flexible Spot / Tracking (Wide / Zone / Center / Flexible Spot (S/M/L) / Expanded Flexible Spot)
Focus Mode	Single-shot AF / Automatic AF / Continuous AF / DMF / Manual Focus
Image Control	Contrast, Saturation, Sharpness, Creative Style, Color Space (sRGB/Adobe RGB), Quality (RAW/RAW&JPEG (Extra fine, Fine, Standard), JPEG (Extra fine, Fine, Standard)
ISO Sensitivity (Movie)	Auto: (ISO100 Level-ISO 12800Level, selectable with upper / lower limit), 100/125/160/200/250/320/400/500/640/800/1000/1250/1600/2000/2500/3200/4000/5000/6400/8000/10000/12800

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ISO Sensitivity (Still Image)	Auto (ISO100-12800, selectable with upper / lower limit), 100/125 /160 /200 /250/ 320 /400/ 500 /640 /800 /1000/1250/1600 /2000/2500/3200/4000/5000/6400/ 8000 /10000/ 12800 (Extendable to ISO64/80), Multi-Frame NR: Auto(ISO100-12800), 100/ 200/400/ 800/1600/3200/6400/12800/25600*5
Light Metering Mode	Multi Pattern / Center Weighted / Spot / Entire Screen Avg / Highlight
Picture Effect for Still	(Still Image) Toy camera, Pop Color, Posterization, Retro Photo, Soft High-key, Partial Color, High Contrast Mono., Soft Focus, HDR Painting, Richtone Monochrome, Miniature, Watercolor, Illustration (Movie) Toy camera, Pop Color, Posterization, Retro Photo, Soft High-key, Partial Color, High Contrast Mono.
Scene Selection	Portrait, Sports Action, Macro, Landscape, Sunset, Night Scene, Handheld Twilight, Night Portrait, Anti Motion Blur, Pet Mode, Gourmet, Fireworks, High Sensitivity
Self-Timer	10 sec. / 5 sec. / 2 sec. / 3 or 5 consecutive shots with 10 sec. 5 sec. or 2 sec. delay selectable / Bracketing shots with 10 sec. 5 sec. or 2 sec. delay selectable / Single Burst shots with 10sec. 5sec. or 2sec. delay selectable
Shooting Mode	AUTO (Intelligent Auto / Superior Auto), Program Auto, Aperture Priority, Shutter Speed Priority, Manual Exposure, MR (Memory Recall) (body 3 sets / memory card 4 sets), Movie Mode (Program Auto, Aperture Priority, Shutter Speed Priority, Manual Exposure), HFR Mode (Program Auto, Aperture Priority, Shutter Speed Priority, Manual Exposure), Panorama, Scene Selection
Shutter Speed	Auto (4"-1/2000) / Program Auto (30"-1/2000) / Manual (Bulb, 30"-1/2000) / Aperture Priority (30"-1/2000) / Shutter Priority (30"-1/2000)
SteadyShot™	Optical
WB micro adjustment	Yes G7 to M7, 57-step A7 to B7, 29-step
White Balance Mode	Auto, Daylight, Shade, Cloudy, Incandescent, Fluor.: Warm White, Fluor.: Cool White, Fluor.: Day White, Fluor.: Daylight, Flash, Underwater Auto, C.Temp. / Filter, Custom
Camera/ Flash	
Flash Mode	Auto / Flash On / Slow Synchro / Rear Sync / Flash Off
Flash Range	ISO Auto: Approx. 0.4m to 5.9m (1.31 ft. to 19.35 ft.) (W) / Approx. 1.0m to 3.1m (3.28 ft. to 10.17 ft.) (T), ISO12800: up to Approx. 12.4m (40.68 ft.) (W) / Approx. 7.0m (22.96 ft.) (T)
Camera / Number of Recognized Scene	
Still Image	Superior Auto: 44 / iAuto: 33 (Movie) 44
Imaging Sensor	
Effective Picture Resolution	Approx. 20.1 Megapixels
Imaging Sensor	1.0-type (13.2mm x 8.8mm) Exmor RS CMOS sensor, aspect ratio 3:2
Pixel Gross	Approx. 21.0 Megapixels
Interface	
Input and Output Terminal	Multi / Micro USB Terminal*, Hi-Speed USB (USB2.0), Micro HDMI, Microphone jack (3.5mm Stereo mini jack) *Supports Micro USB compatible device.
Wi-Fi	Yes (IEEE802.11b/g/n (2.4GHz band))
Bluetooth	Yes (Bluetooth Standard Ver. 4.1 (2.4GHz band))
Lens	
F-number (Maximum Aperture)	F2.8 (W)-4.5 (T)
Focal Length (f =)	f=9.0-72mm
Focus Range (from the front of the lens)	AF (W: Approx. 8cm (0.27 ft.) to Infinity, T: Approx. 100cm (3.29 ft.) to Infinity)
Lens Type	ZEISS® Vario-Sonnar T* Lens, 15 elements in 12 groups (8 aspheric elements including AA lens)
Lens/ Clear Image Zoom	
Movie	4K: Approx. 12x / HD: Approx. 16x
Still Image	20M Approx. 16x / 10M Approx. 22x / 5.0M Approx. 32x / VGA Approx. 121x
Lens/ Digital Zoom	

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Movie	Approx. 32
Still Image	20M Approx. 32x / 10M Approx. 44x / 5.0M Approx. 64x / VGA Approx. 121x
Lens/ Optical Zoom	
Still Image, Movie	Still Image-Movie: 8.0x
Others	
4K image output	Yes
Digital Level Gauge	Yes (Pitch and roll)
Operating Speed	Start-up Time (Approx. 1.3 sec.) / Shooting Time Lag (Approx. 0.06 sec.) / Shooting Interval (Approx. 0.32 sec.)
Other Playback Function	BRAVIA Sync (Control for HDMI) / 9/25-frame index view / Auto Orientation / Slide Show / Forward / Rewind (Movie) / Delete / Protect / Motion Shot Video / Beauty Effect / Photo Capture / Rating
Other Shooting Functions	Face Detection, Face Registration, Still Image Recording (during movie recording), Smile shutter, Grid Line, Quick Navi, Digital Level Gauge (pitch and roll), WB Bracket, DRO Bracketing, MF Assist, Peaking (Display: Off/On) (Level: High/Mid/Low) (Color: Red/Yellow/Blue/White), Zebra, Marker Display, Audio Rec Level, Audio Level Display, Step Zoom / Quick Zoom, Self-portrait timer, TC / UB, Copyright Info, ISO Auto Minimum Shutter Speed, PC Remote Control, Gamma Disp. Assist, (Mov)AF Tracking Sensitivity, (Mov)AF Drive Speed, Set File Name, Touch Shutter / Touch Focus / Touch Tracking, Touch Pad, My Menu, My Dial
TRILUMINOS Color	Yes
Power	
Battery System	Rechargeable battery pack NP-BX1
Power Source	DC3.6V (supplied battery) / DC5.0V (supplied AC adaptor)
USB Charge/USB Power Supply	Yes (Shooting, Playback)
When shooting actual movie(CIPA)	Monitor: Approx. 40min., Viewfinder: Approx. 40min.
When shooting continuous movies (CIPA)	Monitor: Approx. 70min., Viewfinder: Approx. 70min.
When shooting still images (CIPA)	Monitor:Approx. 260 / Approx. 130min., Monitor (When Auto Monitor off is set to 2sec):Approx. 310 / Approx. 155min., ViewFinder:Approx. 240 / Approx. 120min.
Power Consumption (in Operation)	Approx. 2.1W with LCD monitor and approx. 2.3W with viewfinder (CIPA standard)
Print	
Exif Print	Yes
PRINT Image Matching (PIM3)	Yes
Recording	
Color Space (Still)	sRGB / Adobe RGB
DCF/DPOF	DCF / DPOF / EXIF / MPF
Recording Format(Movie Audio)	XAVC S: LPCM 2ch / AVCHD: Dolby Digital (AC-3) 2ch (Dolby Digital Stereo Creator)
Recording Format(Still Image)	JPEG (DCF Ver. 2.0, Exif Ver. 2.31, MPF Baseline compliant), RAW (Sony ARW 2.3 format) (Movie): XAVC S, AVCHD format Ver. 2.0 compatible
Still Image Number of recorded pixels (Image Size)	3:2 mode: 20M (5,472x3,648) / 10M (3,888x2,592) / 5M (2,736x1,824), 4:3 mode: 18M (4,864x3,648) / 10M (3,648x2,736) / 5M (2,592x1,944) / VGA, 16:9 mode: 17M (5,472x3,080) / 7.5M (3,648x2,056) / 4.2M (2,720x1,528), 1:1 mode: 13M (3,648x3,648) / 6.5M (2,544x2,544) / 3.7M (1,920x1,920), Sweep Panorama: Wide (12,416x1,856/5,536x2,160), Standard (8,192x1,856/3,872x2,160)

Video Resolution	<p>Movie Recording Mode:</p> <p>NTSC: AVCHD: 24M FX (1,920x1,080/60i) / 17M FH (1,920x1,080/60i), XAVC S 4K: 30p 100M (3,840x2,160/30p) / 30p 60M (3,840x2,160/30p) / 24p 100M (3,840x2,160/24p) / 24p 60M (3,840x2,160/24p), XAVC S HD: 60p 50M (1,920x1,080/60p) / 60p 25M (1,920x1,080/60p) / 30p 50M (1,920x1,080/30p) / 30p 16M (1,920x1,080/30p) / 24p 50M (1,920x1,080/24p) / 120p 100M (1,920x1,080/120p) / 120p 60M (1,920x1,080/120p)</p> <p>PAL: AVCHD: 24M FX (1,920x1,080/50i) / 17M FH (1,920x1,080/50i), XAVC S 4K: 25p 100M (3,840x2,160/25p) / 25p 60M (3,840x2,160/25p), XAVC S HD: 50p 50M (1,920x1,080/50p) / 50p 25M (1,920x1,080/50p) / 25p 50M (1,920x1,080/25p) / 25p 16M (1,920x1,080/25p) / 100p 100M (1,920x1,080/100p) / 100p 60M (1,920x1,080/100p)</p> <p>HFR</p> <p>NTSC: XAVC S HD: 60p 50M (1,920x1,080/240fps), 60p 50M (1,920x1,080/480fps), 60p 50M (1,920x1,080/960fps) / 30p 50M (1,920x1,080/240fps), 30p 50M (1,920x1,080/480fps), 30p 50M (1,920x1,080/960fps) / 24p 50M (1,920x1,080/240fps), 24p 50M (1,920x1,080/480fps), 24p 50M (1,920x1,080/960fps) Sensor Readout Number of effective pixels Quality Priority: 240fps/250fps (1,824x1,026), 480fps/500fps (1,824x616), 960fps/1000fps (1,244x420) / Shoot Time Priority: 240fps/250fps (1,824x616), 480fps/500fps (1,292x436), 960fps/1000fps (912x308)</p> <p>PAL: XAVC S HD: 50p 50M (1,920x1,080/250fps), 50p 50M (1,920x1,080/500fps), 50p 50M (1,920x1,080/1000fps) / 25p 50M (1,920x1,080/250fps), 25p 50M (1,920x1,080/500fps), 25p 50M (1,920x1,080/1000fps)</p>
Screen	
Adjustable angle	Up by approx. 180 degrees, down by approx. 90 degrees
Brightness control	Manual (5 steps) / Sunny Weather
Screen Type	7.5cm (3.0 type) (4:3) / 921,600 dots / Xtra Fine / TFT LCD Number of dots: 0.39-type electronic viewfinder (OLED), 2,359,296 dots
Viewfinder	
Brightness control	Auto, Manual (5 steps)
Eye point	Approx. 20mm from the eyepiece, 19.8mm from the eyepiece frame at -1m ⁻¹ (dioptre) (CIPA standard)
Magnification	Approx. 0.59x with 50mm lens at infinity, -1m ⁻¹ (dioptre) (35mm equiv.)
Weights and Measurements	
Dimensions (Approx.)	4 x 2 3/8 x 1 11/16 in. (101.6 x 58.1 x 42.8mm)
Weight (Approx.)	10.7oz.(302 g) (Battery and Memory Card are included) / 9.8oz. (275 g) (Body Only)
Accessories	
Supplied Accessories	Rechargeable Battery Pack NP-BX1 AC Adaptor Micro USB cable Wrist Strap Strap adaptor Instruction Manual

1. Angle of view (35mm format equivalent).
 2. Among fixed lens digital cameras with 1" (1.0-type) sensor. As of July 2019 press release, based on Sony research.
 3. CIPA standard, internal measurement, at $f=9.0\text{mm}$ (wide-end), EV6.6, Program Auto, Focus mode: AF-A, Focus area: Center.
 4. When using the electronic shutter with "Continuous shooting mode: Hi". Effective when the shutter speed is 1/60 or above.
 5. When using the electronic shutter. Effective when the shutter speed is 1/60 or above.
 6. Effective when using electronic shutter. The slower the shutter speed, the lower the refresh rate of the display.
 7. Seven still images are shot per burst. Focus and exposure are fixed at the first shot.
 8. Employing AI (artificial intelligence) technology, including machine learning.
 9. Real-time Eye AF for Animals supports still images only and cannot be used in combination with tracking. Does not work with some types of animal. Focusing may not perform well depending on scene and subject conditions.
 10. Approximate effective megapixels.
 11. A Class 10 or higher SDHC/SDXC card is required for XAVC S format movie recording. UHS speed Class 3 or higher is required for 100 Mbps recording. 4K continuous recording is available for approx. 5 minutes (Auto Power OFF Temp. Standard), but can be extended (Auto Power OFF Temp. High)
 12. Sound cannot be recorded when shooting slow motion. An SDHC/SDXC memory card of Class 10 or higher is required.
 13. Image compensation angle at wide-end (comparison with 4K standard mode).
 14. Please use Movie Edit add-on mobile app latest version.
 15. The frame area of the picture becomes narrower than the original image. Movie footage can be rendered up to Full HD quality.
 16. In-camera movie playback is in the horizontal position. Whether or not movies are displayed in the vertical position depends on your device.
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