SONY®

White paper

March 2015

Xperia™ Z4 Tablet
SGP771

Purpose of this document

Sony product White papers are intended to give an overview of a product and provide details in relevant areas of technology.

NOTE: The illustration that appears on the title page is for reference only. All screen images and elements are subject to change without prior notice.

Document history

Version		
March 2015	First released version	Version 1

Sony Mobile Developer World

For the latest technical documentation and development tools, go to *www.sonymobile.com/developer.*

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Product overview

Highlights

- Connectivity: Wi-Fi MIMO (up to 867 Mbit/s) and 4G LTE Cat 6 (up to 300 Mbps)
- Display: 10.1" 2560x1600 WQXGA, Triluminos™ display with X-Reality™ for mobile
- Audio: Hi-Res audio, Digital Sound Enhancement Engine (DSEE HX) technology.
- Gaming: PS4® Remote Play, Snapdragon 810 Octa-core 64 bit processor for speed, Wi-Fi MIMO for PS4® connectivity.
- Camera: 5.1 MP wide angle front camera
- Accessories (Optional): Sony Bluetooth® Keyboard BKB50

High-speed and high-performance
When you're multi-tasking over Wi-Fi or a 4G network, Xperia™ Z4 Tablet delivers the speed you need. Download email with attachments in seconds and enjoy video streaming with no delays or unwanted buffering. The Xperia™ Z4 Tablet is powered by a 64-bit Snapdragon processor for a faster web browsing experience and optimal graphics performance.

Long-lasting battery
Whether you use your Xperia™ Z4 Tablet for business or pleasure or both, you will be impressed by its battery performance. You can spend a day sending and receiving email, accessing the web for whatever you need and running as many apps as you want.

Sight and sound
Enjoy your favorite movies, your most memorable moments and the YouTube™ clips you want to see over and over again with the Xperia™ Z4 Tablet. The Xperia™ Z4 Tablet comes with a 2K resolution display built on Sony TV technology and a powerful set of front stereo speakers. The Xperia™ Z4 Tablet even supports High-Resolution Audio and digital noise cancelling for a superior audio experience with reduced distortion and noise.

Play to win
Keep playing your favorite PlayStation®4 games wherever you are in your home. With PS4™ Remote Play and a DUALSHOCK4® game controller, your Xperia™ Z4 Tablet keeps you in the game just the way you like it.

Efficiency away from the office
With the Sony Xperia™ Z4 Tablet keyboard and cover stand, you get a laptop style touchpad, laptop ergonomics, efficient text input and a complete office experience while working on the go.

Product Specifications

Operating system	Google™ Android™ 5.0 (Lollipop)
Processor	2 GHz / 1.5 GHz Qualcomm Snapdragon 810 Octa Core 64-bit CPU
GPU	Adreno 430
Size	167 x 254 x 6.1 mm
Weight	393 grams
Available colours	Black, White
SIM card	Nano SIM
Main screen	
Colours	16,777,216 colour TFT
Resolution	WQXGA 2560x1600 pixels
Size (diagonal)	10.1 inches
Scratch-resistant	Chemical tempered glass + Anti-fingerprint coating
Input mechanisms	
Text input	On-screen QWERTY keyboard
Touch screen	Capacitive
Touch gesture	10-finger multi-touch support
Memory	
RAM	3 GB
Flash memory	Up to 32 GB*
Expansion slot	microSD™ card, up to 128 GB (SDXC supported)
Memory card speed class	Class 10**
Memory card UHS speed class	Class 1**
Camera	
Camera resolution	8.1 MP
Digital zoom	8x
Video recording	1080p HD
Front Camera	1080p HP for video chat 5.1 MP for still photos

ISO	Supports up to ISO 1600 in Manual mode
	Supports up to ISO 3200 in Low Light mode (Photo)
	Supports up to ISO 2000 in Night scene mode (Video)
Minimum focus distance	100 mm
Sensors	
Accelerometer	Yes
Ambient light sensor	Yes
Hall sensor	Yes
Magnetometer	Yes
Gyroscope	Yes
Networks	
SGP771	UMTS HSPA+ 850 (Band V), 900 (Band VIII), 1900 (Band II), 2100 (Band I) MHz GSM GPRS/EDGE 850, 900, 1800, 1900 MHz LTE Band I, Band II, Band III, Band IV, Band V, Band VII, Band VIII, Band XII, Band XVII, Band XX, Band XXVIII, Band XL
Data transfer speeds	
GSM GPRS	Up to 107 kbps
GSM EDGE	Up to 296 kbps
UMTS HSPA+ Cat 6	Up to 5.8 Mbps (upload)
UMTS HSPA+ Cat 24	Up to 42 Mbps (download)
LTE Cat 6	Up to 50 Mbps (upload), up to 300 Mbps (download)
Battery performance	
Talk time (GSM)	**TBD*****
Standby (GSM)	**TBD*****
Talk time (UMTS)	**TBD*****
Standby (UMTS)	**TBD*****
Standby (LTE)	**TBD*****
Audio playback	**TBD*****
Video playback	**TBD** Up to 17 hours***
Battery	Embedded 6000 mAh minimum

*Memory comprises approximately **TBD** GB of firmware, plus **TBD** GB of "Internal storage" for music, pictures, movies, downloaded applications and personal data. For more details about memory, see "Memory in Android™ devices" on page 19.*

** This device meets the minimum hardware requirements to support Class 10 / UHS Speed Class 1 Flash memory. Flash memory performance is dependent on the application and task being performed on the device. If you would like to know about your memory card, refer to the technical specifications that came with the card.

*** Values are according to GSM Association Battery Life Measurement Technique as performed in controlled laboratory conditions. Actual time may vary.

NOTE: Battery performance may vary depending on network conditions and configurations, and device usage.

NOTE: The performance results provided are measured under controlled laboratory conditions.

Categorised feature list

Camera
8.1 MP Sony Exmor RS® main camera
5.1 MP Sony Exmor R® front camera
8x digital zoom
Auto focus
Burst mode
HDR for photos and movies
Face detection
Geotagging
HD video recording (1080p)
Image stabiliser
Object tracking
Picture Effect
Quick Launch
Scene recognition
Self-timer
Send to web
Smile Shutter™
Superior Auto
Sweep Panorama
Touch capture
Touch focus
White balance

Music
Album art
Bluetooth® stereo (aptX®, A2DP)
ClearAudio+
Clear Bass™
Clear Phase™
Clear stereo
DSEE HX***
Digital Noise Cancelling
Dynamic normaliser
Hi-Res Audio
Low power audio playback***
Music tones (MP3/AAC)
S-Force Front Surround
SensMe™
Stereo speakers
TrackID™ music recognition*
Walkman® application
What's new*
xLOUD™ Experience

Search
Bookmarks
Google Chrome™*
Google Play™*
Google™ search*
Google Voice™ Search*
Google Maps™ for Mobile with Street view*
Play Books
Play movies & TV
Play Games
Sony Select
Xperia™ Home
Web browser (WebKit™)*

Communication
Call list*
Facebook™ application*
Google+*
Hangouts™*
Noise suppression
Polyphonic ringtones
Speakerphone
Slow talk
Talk equaliser
Twitter™ application*
Voice enhancement*
VoLTE*
Xperia™ Socialife*

Messaging
Email
Google Mail™*
Handwriting recognition
Predictive text input
Sound recorder

Design
Auto rotation
Battery STAMINA mode
Direct touch
Face Unlock
Gesture input
IPX5 and IPX8 (waterproof)**
IP6X (Dust protected)
On-screen QWERTY keyboard
Screenshot capturing
screen recoding
Throw
X-Reality™ for mobile
Touch screen
Triluminos™ Display for mobile
Voice input
Wallpaper

Entertainment

Media browser
Motion gaming
PS4™ Remote Play
Radio (FM radio with RDS*)
SensMe™ slideshow
Sony Entertainment Network*
TV launcher
Video streaming
YouTube™*

Organiser

Airplane mode
Alarm clock
Battery STAMINA mode
Calculator
Calendar
Contacts
eCompass™
Setup guide
Sketch
Stopwatch
Timer

Connectivity

3.5 mm audio jack with Digital
Noise Cancelling (DNC)
ANT+™ support
aGPS*
BeiDou
Bluetooth® 4.1
Chromecast support
Compass
DLNA Certified®
GLONASS
HDCP
High-Res Audio via 3.5 mm audio
jack and USB
MHL 3.0 support + 5-pin support
Media Go™
Media Transfer Protocol support
Micro USB support
Microsoft® Exchange
ActiveSync®
Miracast™
Native USB tethering
NFC
PC Companion
Remote control application
Screen mirroring
Screen recoding
Smart Connect
Synchronisation via Facebook™
Synchronisation via Google™*
Synchronisation via SyncML™
TV SideView
USB charging
USB High speed 2.0 support
Wi-Fi®
Wi-Fi® Hotspot functionality
Xperia Link™

This service is not available in all markets.

** The Xperia™ Z4 Tablet is waterproof and protected against dust as long as you follow a few simple instructions: all attached covers are firmly closed; you can't take the tablet deeper than 1.5m of water and for longer than 30 minutes; and the water should be fresh water. Casual use in chlorinated pools is permitted provided it's rinsed in fresh water afterwards. No seawater and no salt water pools. Abuse and improper use of device will invalidate warranty. The tablet has an Ingress Protection rating of IP65 and

IP68. To see what this means and for more information see www.sonymobile.com/durability. Do note that the Xperia™ Z4 Tablet has a capless USB port to connect and charge your tablet. The USB port needs to be fully dried up before charging if the tablet has been exposed to water.

*** This feature is only available when you play music using the Walkman® application.

Technologies in detail

The information presented in this section is a general overview of the technology incorporated into the product. However, hardware and software levels of compliance to standards and specifications vary between products and markets. For more information, contact Sony Mobile Developer World or the relevant Sony representative.

Device-to-device communications (local)

ANT+™ wireless technology

Compatible devices	Some ANT+™ compatible devices may require installation of additional software.
Frequency band	2.4 GHz
Data transfer rate	Up to 60 Kbps
Encryption	AES-128
Topologies	One to Many, Many to One, Peer to Peer, Star, Practical Mesh

Bluetooth® wireless technology

Bluetooth® Profiles supported	Advanced Audio Distribution Profile v1.2 Audio/Video Remote Control Profile v1.3 Handsfree Profile v1.6* (Wide band speech) Headset Profile v1.2 Object Push Profile v1.2 Phonebook Access Profile v1.1* Message Access Profile v1.1 Generic Attribute Profile Client/Server over LE Device ID Profile v1.3 Human Interface Device Profile v1.0 Personal Area Networking Profile v1.0 Serial Port Profile v1.1 HID over GATT 1.0
Core version and supported core features	Version 4.1 Bluetooth® Low Energy
Other supported features	aptX® CD quality audio streaming over Bluetooth® LDAC High sound quality audio streaming over Blue-tooth®
Connectable devices	Products supporting at least one of the profiles above. BT4.1 accessories generally require installation of a sup-porting application.

This service is not available in all markets.

More information:

www.sonymobile.com/developer

www.bluetooth.com

Wi-Fi®

Supported standards	IEEE 802.11a/b/g/n/ac MIMO and Wi-Fi® Wi-Fi Direct™, Wi-Fi Protected Setup (STA and AP modes), Wi-Fi CERTIFIED Miracast™, Wi-Fi CERTIFIED ac™, Wi-Fi CERTIFIED Passpoint™
Connectable devices	Wi-Fi® access points Wi-Fi Direct compatible devices
Frequency band	2.4 GHz / 5 GHz
Data transfer rate	Up to 867 Mbit/s
Security	WEP Open Authentication WEP Shared Authentication WPA Personal and WPA2 Personal WPA Enterprise and WPA2 Enterprise EAP-SIM EAP-AKA EAP-TLS EAP-TTLS/MSCHAPv2 PEAPv0/EAP-MSCHAPv2 PEAPv1/EAP-GTC
Encryption	WEP 64 bit, WEP 128 bit, TKIP and CCMP (AES)
Power save	WMM-PS
QoS	WMM

DLNA Certified® (Digital Living Network Alliance)

Supported Device Classes	**M-DMS – Mobile Digital Media Server** Media Types: images, music and video Summary: The digital media server exposes the media files in your device to a Wi-Fi® network. The files can then be accessed from other DLNA Certified® clients. **+PU+** Media Types: image, video and music Summary: Play media in the tablet on another device, such as a TV or computer using 2 box push technology. +PU+ is integrated in the Album, Movies and WALKMAN applications. *M-DMC – Mobile Digital Media Controller* Media Types: image, video and music Summary: Digital Media Controllers find content offered by a DMS or M-DMS and match it to the rendering capabilities of a DMR — setting up the connections between the DMS and DMR. **M-DMP – Mobile Digital Media Player** Media Types: image, video and music Summary: Play content stored on another device, for example, a server or a PC, directly on the tablet. **+DN+** Media Types: image, video and music Summary: Download content stored on another device, for example, a server or a PC, and play the downloaded content directly on the tablet. *+UDO+* Media Types: image, video and music Summary: The digital media server also has the capability to get uploaded files from other DLNA Certified® clients.
Supported Bearers	Wi-Fi®
DRM Support	The DLNA Certified® implementation does not support DRM-protected content.

Messaging

MMS (Multimedia Messaging Service)
According to OMA Multimedia Messaging Service v1.0 + SMIL

Email

Bearer type (IP)	GPRS, EGPRS, UMTS, LTE
Character sets	BIG5 Traditional Chinese GB18030 ISO-2022-JP Japanese ISO-8859-1 ISO-8859-2 Eastern Europe ISO-8859-5 Cyrillic ISO-8859-7 Greek ISO-8859-9 Turkish ISO 8859-11 KOI8-R Cyrillic Shift_JIS Japanese USASCII UTF-16 UTF-8 Windows® 874 Windows® 1251 Cyrillic Windows® 1252 Windows® 1254 Turkish Windows® 1258 Vietnamese
Protocols	POP3 and IMAP4
Push email	Microsoft® Exchange ActiveSync® (EAS) IMAP4 Idle (RFC2177)
Secure email	SSL/TLS, both port methods (POPS/IMAPS) and START-TLS
HTML mail	Yes (read only)

More information:

www.sonymobile.com/developer

www.openmobilealliance.org

Positioning – location based services

Supported standards:

- OMA Secure User Plane Location (SUPL) v1.0 & v2.0

- 3GPP™ Control Plane location

- Qualcomm® GPSOneXtra™

Supported satellite systems:

- GPS

- GLONASS

- BeiDou*

NOTE: When needed, the device automatically uses a combination of all available satellite systems to accurately provide location information.

* BeiDou satellites are not used for providing location information in U.S. territory.

Provisioning (OMA CP)

OMA CP version 1.1

Multimedia (audio, image and video)

Audio Playback	**Decoder format**	**Supported file formats**
	AAC (AAC-LC, AAC+, eAAC+, AAC-ELD)	3GPP (.3gp, 3gpp), MP4 (.mp4, .m4a), ADTS (.aac)
	ALAC	MP4 (.m4a)
	AMR-NB, AMR-WB	3GPP (.3gp, .3gpp), MP4 (.mp4, .m4a), AMR (.amr, .awb)
	DSD	DSF (.dsf), DSDIFF (.dff)
	FLAC	FLAC (.flac), Matroska (.mka)
	MIDI	SMF (.mid), XMF (.xmf), Mobile XMF (.mxmf), OTA (.ota), RTTTL (.rtttl), RTX (.rtx), iMelody (imy)
	MP3	MP3 (.mp3)
	PCM	WAV (.wav)
	Vorbis	OGG (.ogg), Matroska (.mkv)
	WMA	ASF (.wma)
	Opus	Opus (.opus), Matroska (.mkv)
Audio Recording	**Encoder format**	**Supported file formats**
	AAC (AAC-LC, AAC+, AAC-ELD)	3GPP (.3gp, .3gpp), MP4 (.mp4, .m4a)
	AMR (AMR-NB, AMR-WB)	3GPP (.3gp, .3gpp), MP4 (.mp4, .m4a), AMR (.amr)
Image Playback	**Decoder format**	**Supported file formats**
	BMP	BMP (.bmp)
	GIF	GIF (.gif)
	JPEG	JPEG (.jpg, .jpeg)
	PNG	PNG (.png)
	WebP	WebP (.webp)
Image Capture	**Encoder format**	**Supported file formats**
	JPEG	JPEG (.jpg)

Video Playback	Decoder format	Supported file formats
	MPEG-4	3GPP (.3gp, .3gpp), MP4 (.mp4, .m4v), Matroska (.mkv), AVI (.avi), Xvid (.xvid)
	H.263	3GPP (.3gp, .3gpp), MP4 (.mp4, .m4v)
	H.264	3GPP (.3gp, .3gpp), MP4 (.mp4, .m4v), Matroska (.mkv)
	H.265	MP4 (.mp4, .m4v)
	VP8	WebM (.webm), Matroska (.mkv)
	VP9	WebM (.webm)
Video Recording	Encoder format	Supported file formats
	MPEG-4	3GPP (.3gp), MP4 (.mp4)
	H.263	3GPP (.3gp), MP4 (.mp4)
	H.264	3GPP (.3gp), MP4 (.mp4)
Audio/Video Streaming	Streaming transport	HLS HTTP progressive streaming RTSP
Digital Rights Management (DRM)	Supports DRM-protected downloaded content	OMA DRM v1.0 Marlin DRM Widevine Level 1 PlayReady DRM (available in specific regions)

Synchronisation (OMA DS, EAS, Google Sync™)

OMA Data Synchronisation protocol versions 1.1.2 and 1.2

OMA Data Formats: vCard 2.1, vCalendar 1.0

Microsoft® Exchange ActiveSync® protocol version 2.5

Microsoft® Exchange ActiveSync® protocol version 12

Microsoft® Exchange ActiveSync® protocol version 12.1

Microsoft® Exchange ActiveSync® protocol version 14

Microsoft® Exchange ActiveSync® protocol version 14.1

Google Sync™

Related information:

www.sonymobile.com/developer

Web browser

Google Chrome™ for Android™ is pre-installed in markets/regions where no restrictions apply.

Related information:

https://play.google.com/store/apps/details?id=com.android.chrome

Memory in Android™ devices

To use Android devices efficiently, users should be aware of the different types of device memory. This knowledge is important in order to understand, for example, where data such as music, photos and videos is saved; how many apps can be downloaded from Google Play™; and how photos can be copied to a PC.

Information regarding memory presented in this section may be useful to developers when optimising applications for mobile devices.

Generally, all Android devices share the same basic memory setup. What differs is how much memory is available to you via the different types of memory, and whether your device uses an external SD card or an internal memory chip. Any information specific to the particular device model described in this White Paper is noted as such.

Types of memory

The types of memory described and numbered below are consistent with the terminology used in Sony mobile device menus and in other content relating to 2015 Xperia™ devices:

1. **Dynamic Memory** (also known as RAM) is used by applications that run when the device is turned on. The amount of Dynamic Memory influences how many applications and operating system services can run at the same time. The Android operating system automatically closes applications and services that are not being used.

   However, such automatic functionality has limits. For example, if a lower amount of free RAM is available to applications after a new release of the operating system (due to increased capabilities in the system), device speed will eventually be impacted. This is the main reason that a device cannot be indefinitely upgraded to newer releases of Android™.

   If you experience problems with RAM, for example, if the device runs slower than usual or if the Home application restarts frequently when you leave an application, you should minimise the use of apps that run all the time. Social networking apps that connect and update their data online and animated backgrounds are examples of apps that are always running and affect RAM performance. To minimise RAM issues, you could also consider using a static wallpaper instead of a live wallpaper.

   To see which apps and services are currently active, go to **Settings > Apps > Running**. You should have at least 50 MB, and ideally 100 MB or more, of free RAM to avoid slowdowns and application restarts.

   You should also be aware that if you update the device to a later Android release, the load on the built-in Dynamic Memory will increase due to the addition of more features. As a result, the device may run slower after an update.

   The Xperia™ Z4 Tablet has 1 GB of RAM available to the Android OS and any installed applications. 200 MB of the total RAM is in use during normal operation when the user starts using the device out of the box.

2. **System Memory** (also known as "System partition" or "/system") is used for the Android OS and for most applications that are pre-loaded from the factory. This type of memory is normally locked, and can only be changed through a firmware upgrade. There is usually some free space available in this section of memory. However, since it is locked, you cannot save apps, photos or any other content to this memory. System Memory is reserved for future firmware upgrades, which almost always need more memory than the original firmware. You cannot see or influence the use of this memory.

3. **Internal Storage is referred to as "working" memory.** It can be compared to the C: drive on a PC or to the startup disk on a Mac.

   This type of memory is used to store all application downloaded from the Google Play™ Store (and other sources) as well as their settings and data (such as emails, messages and calendar events, for example). All applications have an allocated area for application data. Memory dedicated to an application is inaccessible to other applications.

   Some game applications also store content such as game music and game level information outside their own designated area. In most cases, an application can choose to save its data in a location of its own choosing (outside the protected application settings area). Generally, such content is not deleted when an application is uninstalled; it must be removed manually by connecting the device to a computer with a USB cable, or by using a file manager application.

   Internal storage is also used for all added user content. For example, photos taken using the device's camera, media files downloaded from the Internet and file transfers are stored in this area. Typical user content includes:
   - photos
   - movies
   - music
   - Email attachments

   Internal Storage will tend to fill up as a result of normal usage. Devices with a large initial Internal Storage can handle more applications and store more user content.

   If the Internal Storage starts to get full, the device slows down, and in some cases it might no longer be possible to install more apps. You should always ensure that you have at least 100 MB of free Internal Storage. If not, you should consider removing some apps that you seldom use, or move content that you do not frequently access to external storage.

   You can see approximately how much Internal Storage is free in **Settings** > **Storage** > **DEVICE MEMORY**. You can also view more details about how much memory is used by applications under **Settings** > **Apps**. In the Xperia™ Z4 Tablet, about **TBD** GB of Internal Storage is available out of the box.

   Please note that in Sony Mobile 2015 products, "Internal Storage" is now the combination of what was previously known as "Device Memory" or "Phone Memory" (for applications and their data – also previously known as "/data") and "Internal Storage" (for user's content – also previously known as "/sdcard"). The changes in Internal Storage were made so that memory usage could be more flexible and to allow encryption of user content.

Memory card slot

Some products include both a large internal memory and a built-in memory card reader. Android manages devices with a built-in memory card reader and internal memory differently from a device that includes only a built-in memory card reader.

Since most applications expect only a single location for storage, such applications will not generally allow you to SAVE anything to the memory card (i.e., they do not offer the option to choose a storage location). However, some applications (for instance, the Sony Mobile "Camera" application) may actually allow you to do so. Other applications, for example, backup applications such as the Sony Mobile "Memory" application, will by definition be configured to copy content from the Internal Storage to the external SD card.

On the other hand, when it comes to reading from an external SD Card, you will be able to access content (for example, videos, photos and music) on a memory card inserted in this slot without any special consideration since the Android system searches all available memory for content. Therefore, such products may be regarded as supporting a fourth type of memory, called "External Card" or "SD Card".

4. **SD Card** (known as "/ext_card" from a programmer's point of view, or by other names in other Android products) is the name for the removable SD memory card in all 2015 Sony Mobile products. As described in the previous section, this External Card memory is generally more limited in that any application can read from it, but many applications cannot save to this card. Only a few applications, including backup applications and file manger applications, have the capability to save to this card.

Backing up data to different memory types
Generally, you should not save photos, videos and other personal content solely on the internal memory of a device. If something should happen with the hardware, or if the device is lost or stolen, the data stored on the device's internal memory is gone forever.

In a device where an SD card reader is the main memory, it is relatively easy to take the card out and copy all content to a PC or Mac, or to an entertainment device with a memory card slot. In a product featuring Internal Storage as the main memory, it is not possible to physically remove the memory. Instead, any critical or high-value content must either be copied to an external SD card by a special backup application, transferred to remote storage over a network (mobile or Wi-Fi), or to a computer via a USB cable.

To facilitate the transfer of data via a cable, the Xperia™ Z4 Tablet supports Media Transfer Protocol (MTP), which makes it possible to easily transfer content back and forth between your device and a Windows® PC. For Apple™ Mac® computers, a special application called Sony Bridge for Mac is available with built-in support for MTP. This application can be downloaded from the Xperia™ Z4 Tablet support page.

Note that you do not need to back up or make a copy of applications that you have downloaded from the Google Play™ Store. They can normally be downloaded again after you have set up your Google account to work in a new device (or in a device where the memory has been completely erased).

Note 1:
Some Android devices, including Sony Mobile devices from 2012 and Sony Ericsson devices from 2011 and earlier, do not use a single "Internal Storage" for both applications (and their data) and user content. Instead, these devices use either an external SD card for user content, or a corresponding area of internal memory to reproduce the functionality of an SD card. In such devices, there is a fixed limit between the application area ("/data") and the user content area ("/sdcard"), with the result that user content can build up and reach this limit. When the user content reaches this limit, no additional data can be added using any application. For example, the camera application would no longer be able to capture additional photos even if a considerable amount of free space was available in the application area. This limit also applies to the application area. Downloading and installing new applications would not be possible even if there was enough free memory in the user content area.

Note 2:
Some devices with integrated storage have abandoned the distinction between the application area and the content area when it comes to a Factory Data Reset. As a result, there is no option in such devices to perform a Factory Data Reset and preserve content. In such devices, all content is completely deleted from the device when a reset is performed.

In contrast, Sony Mobile's memory integration solution makes it possible to preserve user content in this situation. Therefore, when performing a Factory Data Reset, the default action will still be to only remove applications and their data, and an option box must be checked if all content is to be removed as well (as might be desirable when selling the device second-hand).

Note 3:
For a developer, it is important to note that from a programming point of view the location names used to refer to the different memory areas described in Note 1 are still valid, i.e., the area used for applications ("/data") is still present, as is the area used for content ("/sdcard").

In reality, "sdcard" is a "symbolic link" to "/data/media". However, from inside an Android application, "/sdcard" can still be used. For example, you can use "sdcard/DCIM/100Android" to find all camera images. The continued use of "/sdcard" to access the content area ensures compatibility across different products and Android releases in this regard.

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Visit *www.sonymobile.com* for more information.