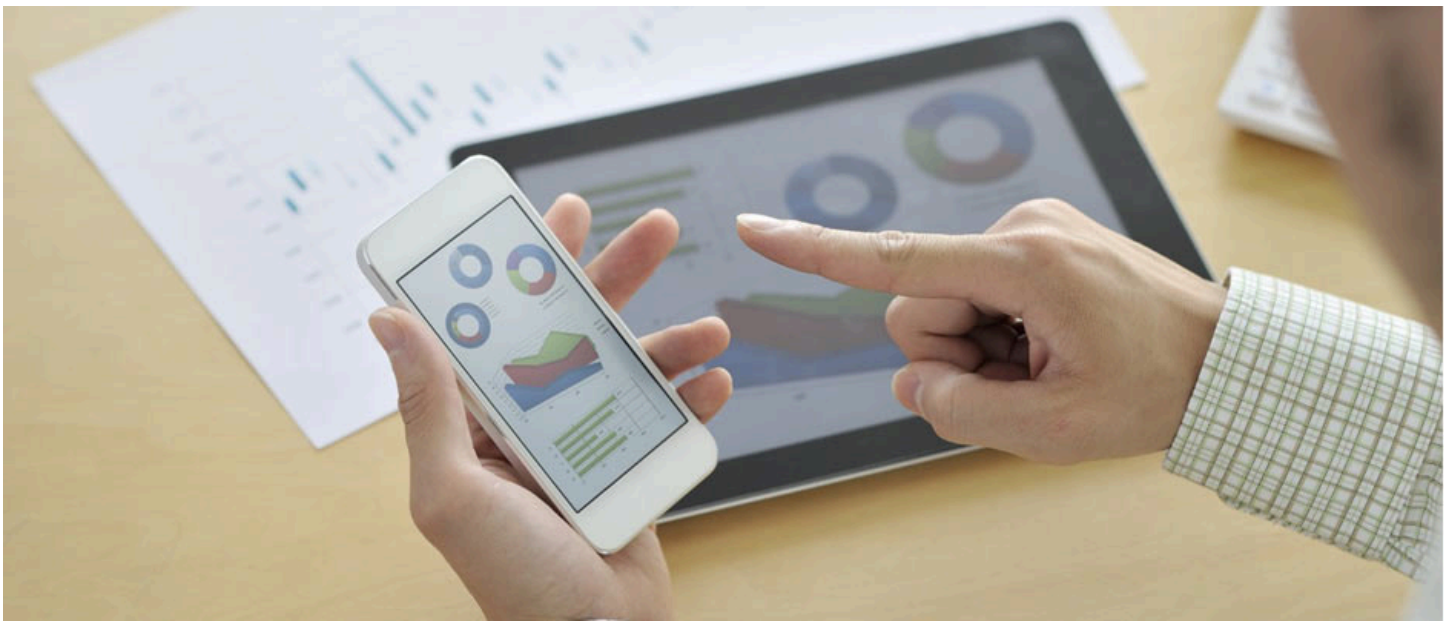
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SCIENTIAMOBILE WURFL JAVA API CHANGELOG

Support

The ScientiaMobile Enterprise Support Portal is open to all WURFL users, both commercial license holders and evaluation users. It represents the combined knowledge base for the WURFL community. Commercial licensees are invited to post questions in the forum using the account to which their licenses are associated. This may mean faster handling of those posts by ScientiaMobile's personnel.

For commercial license holders, there are tiered support levels to address a variety of business support needs. After logging into your account, commercial licensees with support options can access the Enterprise Support portal to post tickets. These tickets will receive expedited attention.

To inquire about support plans, use our License Inquiry or our General Inquiry form.

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ScientiaMobile WURFL Java API Changelog

1.14.1.1 - Oct 30th, 2026

- Enhancements to bot detection and is_robot virtual capability computation

1.14.1.0 - Sep 29th, 2026

- Added support for
  - emerging SmartTVs, STBs and other OTT devices and platforms
  - new robots, spiders, content fetchers and crawlers via is_robot and robot_family capabilities
  - emerging custom User-Agents for Android, iOS and other platforms
- Expanded support for
  - app detection via is_app and advertised_app_name
  - User-Agent Client Hints
  - Fire OS devices
- Fixed behavior for
  - is_robot false positive
- New configuration option (CapabilityFallbackCacheMode: ENABLED / DISABLED)
  - It switches off/on (default value is on) the per-device capability fallback cache. Disabling it lowers memory usage on large data sets, at the cost of slower static/virtual capability computation.
  - To disable, use new GeneralWURFLEngine(root, CapabilityFallbackCacheMode.DISABLED, patches...). This setting is also exposed on WURFLEngine via the getCapabilityFallbackCacheMode() method.
  - The mode can also be switched at runtime via WURFLEngine.setCapabilityFallbackCacheMode(mode). Switching to DISABLED stops writing new cache entries. Switching to ENABLED resumes caching from the next lookup.
  - A reload() keeps the last-set mode and rebuilds with an empty cache.

1.14.0.2 - Aug 10th, 2026

- New patch file consistency validation
  - Patch files are now validated against the WURFL data file for User-Agent conflicts. If a patch adds a device whose User-Agent conflicts with one already defined by another device, the engine load now throws a UserAgentNotUniqueException instead of silently replacing the existing device. Note that two User-Agents can conflict without being byte-identical, since the engine compares them in processed form.
  - [IMPORTANT] Patch files containing such conflicts loaded successfully in previous releases; they will now cause a load failure.
- WURFL load optimizations

1.14.0.1 - Jun 16th, 2026

- Improvement in engine load
- Updated logback version to 1.5.38
- REMOVAL NOTICE: the following deprecated code has been removed
  - WURFLEngine.setUserAgentResolver(UserAgentResolver) method (interface and GeneralWURFLEngine implementation) and the related UserAgentResolver, UserAgentResolverFactory, DefaultUserAgentResolver and FastUserAgentResolver types
  - WURFLEngine.getAllMandatoryCapabilities() method
  - GeneralWURFLEngine.isExtraHeadersExperimentalEnabled() and setExtraHeadersExperimental(Boolean) methods
  - all group-related methods in ModelDevice/WURFLModel (getGroupByCapability, isGroupDefined, getAllGroups, getCapabilitiesForGroup, getGroupsByCapability, defineGroup, getGroups, getGroupForCapability, getCapabilitiesNamesForGroup and the Builder.setCapabilitiesByGroup method)
  - the group-related exceptions GroupNotDefinedException, GroupConsistencyException, BadCapabilityGroupException, InexistentGroupException and the MissingUserAgentException
  - WURFL Updater setFirstExecution(Calendar) and getInitialDelay() methods
  - AbstractVirtualCapability.isInWhitelist(...) deprecated overloads (replaced by isInWhitelistElement)
  - LRUMapCacheProvider(int maxSize, boolean scanUntilRemovable) deprecated constructor (use LRUMapCacheProvider(int maxSize))

1.14.0.0 - Jun 9th, 2026

- New minimum Java version requirement
  - The minimum Java version required has changed from 8 to 11
- Added support for
  - emerging custom user-agents for Android, iOS and other platforms
  - new robots, spiders, content fetchers and crawlers via is_robot and robot_family capabilities
- Expanded support for
  - User-Agent Client Hints
  - app detection via is_app and advertised_app_name
  - iOS and iPadOS versions and devices
  - SmartTVs, STBs and other OTT devices and platforms
  - Game Consoles
  - Android based Smart-TV devices
- Dropped support for
  - UcwebU3Matcher (UCWeb U3 Browser) Note: Any Android User-Agents from this browser will be handled by the AndroidMatcher and the iOS User-Agents by the AppleMatcher

1.13.6.1 - Mar 17th, 2026

- Added support for
  - Spring 2026 iPhone and iPads

1.13.6.0 - Feb 17th, 2026

- Added support for
  - emerging custom User-Agents for Android, iOS and other platforms
  - new robots, spiders, content fetchers and crawlers via is_robot and robot_family capabilities
- Expanded support for
  - User-Agent Client Hints
  - Android based Smart-TV devices
  - SmartTVs, STBs and other OTT devices and platforms
  - app detection via is_app and advertised_app_name
  - iOS and iPadOS versions and devices
- Dropped support for
  - UcwebU2Matcher (UCWeb U2 proxy Browser) Note: Android User-Agents from this browser will be handled by the AndroidMatcher
  - REMOVAL NOTICE: deprecated methods isExtraHeaderExperimental and setExtraHeadersExperimental of WURFLEngine interface have been removed
  - deprecated method isExtraHeaderExperimental of GeneralWURFLEngine class always returns true and it will be removed in the next release
  - deprecated method setExtraHeadersExperimental of GeneralWURFLEngine class has not effect anymore and it will be removed in the next release

1.13.5.0 - Nov 3rd, 2025

- Added support for
  - emerging custom User-Agents for Android, iOS and other platforms
  - Vega OS platform and devices
- Expanded support for
  - SmartTVs, STBs and other OTT devices and platforms
  - app detection via is_app and advertised_app_name
  - Android based Smart-TV devices
  - User-Agent Client Hints
  - robot_family virtual capability:
    - New "AI Trainer" and "AI Assistant" categories
    - Bytespider and GPTBot User-Agents will now be classified as "AI Trainer"
    - ChatGPT-User User-Agents will now be classified as "AI Assistant"
- Fixed behavior for
  - User-Agents and HTTP Requests with invalid or missing Android versions will now return "10.0" as the default/fallback Android version. The previously returned version was "6.0".

- REMOVAL NOTICE: deprecated methods DefaultWURFLRequest.equals, DefaultWURFLRequest.hashCode and DefaultWURFLRequest.getUserAgentProfile have been removed.

1.13.4.2 - Oct 1st, 2025

- Fix:
  - iOS and iPadOS versions and devices
  - Brave browser detection on Windows
  - Performance improvements in detection with HTTP headers

1.13.4.1 - Sept 17th, 2025

- Fix
  - emerging custom User-Agents for Android, iOS and other platforms

1.13.4.0 - Jun 11th, 2025

- Added support for
  - emerging custom User-Agents for Android, iOS and other platforms
  - new robots, spiders, content fetchers and crawlers
- Expanded support for
  - User-Agent Client Hints
  - iOS and iPadOS versions and devices
  - SmartTVs, STBs and other OTT devices and platforms
  - app detection via is_app and advertised_app_name
  - Chromium based browsers and web clients
- Note: VIZIO SmartCast and ViziOS User-Agents now return advertised_* virtual capability return values consistent with the platform's branding and specification. Notable updates for that platform:
  - advertised_device_os: defaults to VIZIO SmartCast
  - advertised_browser: defaults to Chromium
- REMOVAL NOTICE: the following long deprecated classes, interfaces and methods have been removed from the WURFL API:
  - interface CapabilitiesHolder and all its usages
  - interface DeviceProvider
  - class IntrospectorServlet
  - class CapabilitiesHolderFactory
  - class DefaultDeviceProvider
    - Note: Although DefaultDeviceProvider was never explicitly marked as deprecated, its only method and its superinterface were deprecated in 2018. As a result, it has now been removed.
  - constructor DefaultWURFLService(WURFLModel model, MatcherManager matcherManager, DeviceProvider deviceProvider)

    - method WURFLService.getDeviceForRequest(HttpServletRequest request)
    - method DefaultWURFLService.getDeviceForRequest(HttpServletRequest request)
    - method NullCacheProvider.getInternalDeviceFromDeviceId(String deviceId)
    - method DefaultWURFLRequest.isUrlEncoded
    - method DefaultWURFLRequest.setUrlEncoded
    - method WURFLRequestWrapper.isUrlEncoded
    - method WURFLRequestWrapper.setUrlEncoded
    - method WURFLRequest.isUrlEncoded
    - method WURFLRequest.setUrlEncoded
    - method WURFLEngine.setDeviceProvider(DeviceProvider deviceProvider)
    - method GeneralWURFLEngine.setDeviceProvider(DeviceProvider deviceProvider)
    - method WURFLUtils.getDeviceById (all 3 overloads)
    - method WURFLService.getDeviceById (all 3 overloads)
    - method DefaultWURFLService.getDeviceById (all 3 overloads)
    - constructor VirtualCapabilityDevice(String deviceUserAgent, String browserUserAgent, String cleanedDeviceUserAgent, String originalUserAgent)
    - method UserAgentUtils.getAndroidVersion
    - method UserAgentUtils.getAndroidModel
    - method UserAgentUtils.getUcBrowserVersion
    - method UserAgentUtils.getUcAndroidVersion
    - method UserAgentUtils.getUcAndroidModel
- DEPRECATION NOTICE: the following classes, interfaces and methods have been deprecated:
    - method WURFLEngine.getAllMandatoryCapabilities() in
    - method GeneralWURFLEngine.getAllMandatoryCapabilities()
    - interface UserAgentResolverFactory
    - interface UserAgentResolver
    - class FastUserAgentResolver
    - class DefaultUserAgentResolver
    - method WURFLEngine.setUserAgentResolver(UserAgentResolver userAgentResolver)
    - method GeneralWURFLEngine.setUserAgentResolver(UserAgentResolver userAgentResolver)

1.13.3.1 - Mar 24th, 2025

- Improved cache clear behaviour under certain conditions
- Fixed detection issue on certain MIUI browsers on Android
- Deprecation notice: classes GroupConsistencyException, InexistentGroupException, MissingUserAgentException
- Deprecated method isUrlEncoded() in WURFLRequest implementations will always return false, while setUrlEncoded will have no effect.
- Potentially breaking change: the CacheProvider interface has been changed. It now exposes a method getMaxSize() that returns the maximum number of elements of the cache.
- REMOVAL NOTICE:
    - Previously deprecated interface WURFLRequestFactoryWithPriority and all its usages
    - Previously deprecated EngineTarget and UserAgentPriority and all their usages

1.13.3.0 - Feb 18th, 2025

- Added support for
  - advertised_architecture: A new virtual capability that returns the architecture of the device based on analysis of the 'Sec-Ch-Ua-Arch' User-Agent Client Hint.
  - emerging custom User-Agents for Android, iOS and other platforms
  - new robots, spiders and crawlers
- Expanded support for
  - app detection via is_app and advertised_app_name
  - SmartTVs, STBs and other OTT devices
  - Android versions and devices
  - iOS and iPadOS versions and devices
  - User-Agent Client Hints
- Updated logback version to 1.3.15 to fix vulnerability.
- REMOVAL NOTICE: deprecated constructors of DefaultWURFLRequest and its deprecated methods: setUserAgentPriority, getEngineTarget, setEngineTarget have been removed.

1.13.2.1 - Nov 11th 2024

- LRU Cache provider has been rewritten to improve performance

1.13.2.0 - Oct 2nd 2024

- Added support for
  - emerging custom User-Agents for Android, iOS and other platforms
  - new robots, spiders and crawlers
- Expanded support for
  - app detection via is_app and advertised_app_name
  - SmartTVs, STBs and other OTT devices
  - User-Agent Client Hints
  - iOS and iPadOS versions and devices
  - Fixed an issue that caused the cache to ignore LRU behavior
- METHOD DEPRECATION NOTICE: the following methods: getCapabilitiesNamesForGroup, getGroupForCapability setCapabilitiesByGroup, getCapabilitiesForGroup, getGroups, defineGroup, getGroupsByCapability of ModelDevice have been deprecated. Starting from the release after 1.13.2.0, these methods will always return empty string/collections or false depending on the method return type. They will be removed in a future release and won't be replaced.
- REMOVAL NOTICE: deprecated values fastDesktopBrowser and highperformance have been removed from MatchType enum

1.13.1.1 - Jul 16th 2024

- GeneralWURFLEngine.wurflDownload to download a WURFL file from the Snapshot Generator to a folder

1.13.1.0 - May 28th 2024

- Added support for
  - emerging custom User-Agents for Android, iOS and other platforms
  - new robots, spiders and crawlers
- Expanded support for
  - app detection via is_app and advertised_app_name
  - SmartTVs, STBs and other OTT devices
  - iOS and iPadOS versions and devices
  - User-Agent Client Hints

1.13.0.1 - April 2nd, 2024

- Updated
  - Vulnerable commons-collection package to v4.3.x (please note that there is a package name change to org.apache.commons.collections4). Please note that if you need to keep using the old version of commons-collection and just rely on the Java API importing it, you will have to explicitly add it to your project's pom.xml.
  - logback dependency version
- Fixed behavior for
  - detection of certain Web OS browser versions
- REMOVAL NOTICE
  - UserAgentNormalizedChain (normalizers are called procedurally)
  - WURFLRequestFactory and DefaultWURFLRequestFactory (deprecated in 2019)

1.13.0.0 - February 28th, 2024

- Added support for
  - New robots, spiders and crawlers
  - Emerging custom User-Agents for Android, iOS and other platforms
- Expanded support for
  - SmartTVs, STBs and other OTT devices
  - User-Agent Client Hints
  - App detection via is_app and advertised_app_name
  - Digital assistant and connected speaker devices
  - Game Consoles
- Fixed behavior for
  - Spark Email Client (iOS/macOS) now defaults to a desktop detection

- Improved performance for lock handling in cache and virtual capability detection
- METHOD DEPRECATION NOTICE: the following methods:
  - getGroupByCapability, getAllGroups, isGroupDefined,getCapabilitiesForGroup of WURFLUtils, WURFLModel and its implementations have been deprecated. Starting from the release after 1.13.0.0, these methods will always return empty string/collections or false depending on the method return type. These methods will be removed two releases after the release of WURFL API 1.13.0.0 and they will not be replaced.

1.12.11.1 - November 30th, 2023

- Updated logback dependency version to fix vulnerability

1.12.11.0 - October 23rd, 2023

- Added support for
  - new SmartTVs, STBs and other OTT devices
  - new robots, spiders and crawlers
- Expanded support for
  - custom User-Agents for Android, iOS and other platforms
  - User-Agent Client Hints
  - app detection via is_app and advertised_app_name
  - iOS and iPadOS versions and devices
  - Tizen based devices
- Fixed behavior for
  - Firefox on Android will now use "6.0" as the default/fallback OS version in cases where an Android version is absent
- Removed code that has been deprecated for four or more years

1.12.10.1 - August 28th, 2023

- Fixed a NullPointerException in getDeviceForRequest()

1.12.10.0 - June 27th, 2023

- Added support for
  - new robots, spiders and crawlers
  - new SmartTVs, STBs and other OTT devices
- Expanded support for
  - custom User-Agents for Android, iOS and other platforms
  - app detection via is_app and advertised_app_name
  - Chromium based browsers and web clients

- Fixed behavior for
  - User-Agents and HTTP Requests with invalid or missing Android versions will now return "6.0" as the default/fallback Android version. The previously returned version was "4.0".
- Note: We periodically update the definition of what we consider to be a smartphone. These changes affect the is_smartphone and form_factor capabilities. This version of the WURFL API makes the following change:
  - Minimum OS version requirements increased to iOS 12, Android 8.0

1.12.9.0 - March 14th, 2023

- Added support for
  - new robots, spiders and crawlers
  - custom User-Agents for Android, iOS and other platforms
- Expanded support for
  - SmartTVs, STBs and other OTT devices
  - User-Agent Client Hints
  - App detection via is_app and advertised_app_name
  - iOS and iPadOS versions and devices
  - Android devices

1.12.8.0 - Nov 30th, 2022

- Added support for
  - new robots, spiders and crawlers
  - custom User-Agents for Android, iOS and other platforms
- Expanded support for
  - Android devices
  - SmartTVs, STBs and other OTT devices
  - Chromium based browsers and web clients
  - App detection via is_app and advertised_app_name
  - iOS and iPadOS versions and devices
  - User-Agent Client Hints

1.12.7.0 - Sept 21th, 2022

- Added support for
  - new robots, spiders and crawlers
  - new email clients
- Expanded support for
  - SmartTVs, STBs and other OTT devices
  - Digital assistant and connected speaker devices
  - Fire OS devices

- App detection via is_app and advertised_app_name
- Mobile and desktop applications
- iOS and iPadOS versions and devices

1.12.6.0 - May 31, 2022

- Added WURFLEngine method getDeviceForRequest(Map<String,String> headers)
- Added WURFLEngine method buildUserAgentFromClientHints(Map<String,String> headers)
- Starting from this version MatchType of an empty user-agent detection ("") is MatchType.exact (was MatchType.none)
- Added support for - custom User-Agents for Android, iOS and other platforms - new SmartTVs, STBs and other OTT devices - device level detection for certain Roku UAs
  - Expanded support for
    - User-Agent Client Hints
    - ChromeOS devices
    - is_smartphone and form_factor capabilities
    - App detection via is_app and advertised_app_name
    - Chromium based browsers and web clients
    - iOS and iPadOS versions and devices Note: We periodically update the definition of what we consider a Smartphone. These changes affect the is_smartphone and form_factor capabilities. This version of the WURFL API makes the following changes:
    - Horizontal Resolution requirements increased to 540 pixels
    - Minimum OS version requirements increased to iOS 9, Android 6.0
    - Removed RIM OS and Windows Phone OS from being considered as Smartphone OS'es
    - Added HarmonyOS

1.12.5.0 - March 1, 2022

- Added support for
  - new robots, spiders and crawlers
  - custom User-Agents for Android, iOS and other platforms
  - Expanded support for - User-Agent Client Hints - SmartTVs, STBs and other OTT devices - App detection via is_app and advertised_app_name
- Added methods isUaFrozen and headerQuality Note: Support for User-Agent Client Hints is now turned on by default.
- Removed internal interface WURFLHeaderProvider and its implementations (deprecated from March 2018)
- Removed old commons-lang dependency and updated the commons-lang3 one
- Replaced dependency logback-classic with logback-core
- engine methods getDeviceById and its overloads now throw NPE if device ID is null, while in previous versions threw IllegalArgumentException

1.12.4.0 - November 24, 2021

- Added support for
  - new robots, spiders and crawlers
- Expanded support for
  - SmartTVs, STBs and other OTT devices
  - Custom User-Agents for Android, iOS and other platforms
  - App detection via is_app and advertised_app_name
  - Certain Windows 11 User-Agents
  - iOS and iPadOS versions and devices
  - KaiOS based devices
  - Tizen based devices
- Fixed behavior for ExtraHeadersExperimental

1.12.3.0 - September 29, 2021

- Starting this release (WURFL OnSite API for Java 1.12.3.0), Java 8 will be the lowest supported Java version.
- Added support for
  - new robots, spiders and crawlers
- Expanded support for
  - App detection via is_app and advertised_app_name
  - SmartTVs, STBs and other OTT devices
  - Certain User-Agents from the Roku OS platform
  - iOS and iPadOS versions and devices
- Fixed behavior for
  - Google Read Aloud Assistant: this service is a text to speech assistant and will no longer be categorized as a robot

1.12.2.0 - July 19, 2021

- Added support for
  - Chromium based browsers and web clients
- Expanded support for
  - Android devices
  - App detection via is_app and advertised_app_name
  - Certain non-standard app based User-Agents
  - SmartTVs, STBs and other OTT devices
  - Custom User-Agents for Android, iOS and other platforms

1.12.1.0 - May 24, 2021

- Added support for
  - new robots, spiders and crawlers
- Expanded support for
  - SmartTVs, STBs and other OTT devices
- DEPRECATIONS:
  - getDeviceId methods in WURFLUtils class and WURFLService interface have been deprecated, use the methods with the same name in WURFLEngine instead.
  - Some constructors of DefaultWURFLRequest, deprecated in 2018, have been made inaccessible from outside code.

1.12.0.0 - February 26, 2021

- Added support for
  - new robots, spiders and crawlers
  - Chromium based browsers and web clients
- Expanded support for
  - SmartTVs, STBs and other OTT devices
  - KaiOS based devices
  - App detection via is_app and advertised_app_name
  - game consoles
  - Firefox based browsers
- Fixed behavior for
  - User-Agents with invalid Android versions will now consistently return the default/fallback Android version (4.0)

1.11.10.0 - November 23, 2020

- Added support for
  - Chromium based browsers and web clients
- Expanded support for
  - SmartTVs, STBs and other OTT devices
  - App detection via is_app and advertised_app_name
  - iOS and macOS webviews and apps
  - iOS and iPadOS versions and devices
  - Android TV devices
- Removed support for Java 6. From this version Java Onsite API will be compiled with target and source 1.7 options, and it will run on Java 7 and above versions.

1.11.9.0 - September 14, 2020

- Added support for

    - new robots, spiders and crawlers
- Expanded support for
    - SmartTVs, STBs and other OTT devices
    - iOS and macOS webviews and apps
    - App detection via is_app and advertised_app_name

1.11.8.0 - July 1, 2020

- Added support for
    - new robots, spiders and crawlers
- Expanded support for
    - SmartTVs, STBs and other OTT devices
    - Android devices
    - iOS versions and devices
    - App detection via is_app and advertised_app_name
- REPLACED jackson dependency with Gson
- DEPRECATED class IntrospectorServlet. It will be removed in a future release.

1.11.7.1 - May 4, 2020

- Added support for iOS 13.5 hardware mappings

1.11.7.0 - April 30, 2020

- Added support for
    - new digital assistant and connected speaker devices
- Expanded support for
    - UC Browser User-Agents
    - iOS versions and devices
    - App detection via is_app and advertised_app_name
    - SmartTVs, STBs and other OTT devices
    - Chromium based browsers and web clients
- Disabled external entity features in SAXParser usage to prevent XXE attacks

1.11.6.0 - February 17, 2020

- Expanded support for
    - App detection via is_app and advertised_app_name
    - Web browsers
    - new iOS versions and devices

    - SmartTVs, STBs and other OTT devices
- Fixed behavior for
    - Android User-Agents

1.11.5.0 - December 4, 2019

- Added support for
    - new robots, spiders and crawlers
- Expanded support for
    - new iOS versions and devices
    - App detection via is_app and advertised_app_name
    - Chromium based browsers and web clients
    - SmartTVs, STBs and other OTT devices
    - Fire OS TV devices
- Fixed behavior for
    - UC Browser User-Agents
    - Samsung Browser: Both Dex and Samsung browsers will now return "Samsung Browser" for the advertised_browser_name virtual capability. This is because both browsers will send a similar HTTP request in desktop mode/requesting a desktop User-Agent.
    - Vivaldi: Vivaldi web browser will now return "Vivaldi" and not "Vivaldi browser" for the advertised_app_name virtual capability. This is to be consistent with the browser's branding.

1.11.4.0 - September 16, 2019

- Expanded support for
    - App detection via is_app and advertised_app_name
    - Chromium based browsers and web clients
    - SmartTVs, STBs and other OTT devices
    - KaiOS based devices
    - certain Xiaomi devices

1.11.3.0 - June 17, 2019

- Expanded support for
    - SmartTVs, STBs and other OTT devices
    - App detection via is_app and advertised_app_name
    - Chromium based browsers
    - Digital Assistant devices
    - new iOS versions and devices
- Fixed behavior for
    - UC Browser User-Agents

- bot, spider and crawler detection

1.11.2.0 - April 17, 2019

- Added support for
  - new robots, spiders and crawlers
- Expanded support for
  - SmartTVs, STBs and other OTT devices
  - App detection via is_app and advertised_app_name
  - Google Assistant based devices
  - Chromium based browsers
- Fixed behavior for
  - bot, spider and crawler detection

1.11.1.0 - February 11, 2019

- Added support for
  - new robots, spiders and crawlers
  - new Chromium and Gecko based browsers
- Expanded support for
  - App generated UAs on Android and iOS platforms
  - App detection via is_app and advertised_app_name
  - STBs and other OTT devices
  - SmartTVs, STBs and other OTT devices
  - Chromium based browsers
  - Google Assistant based devices
- Fixed behavior for
  - is_app and is_app_webview behavior under certain conditions where additional HTTP headers are available
  - Android model name extraction for certain User-Agents
  - certain Kindle user agents

1.11.0.2 - January 25, 2019

- Added dependency to commons-lang3 together with old commons-lang. This has been made to try to prevent issue https://issues.apache.org/jira/browse/LANG-626 while preserving backward compatibility as much as possible.

1.11.0.1 - December 20, 2018

- Fixed NullPointerException in method Device.getDeviceRootId() for generic device

1.11.0.0 - December 5, 2018

- Added support for
  - new Chromium based browsers
  - new virtual capability - pixel_density
- Expanded support for
  - app detection via is_app, is_app_webview and advertised_app_name
  - Xbox game consoles
  - web automation frameworks and libraries
  - Internet Explorer and Edge browsers
  - Yahoo Mail
  - robots, crawlers and spiders
  - new Apple devices
  - Gmail
- WURFLRequestFactory is not used anymore. WURFLEngine.setWurflRequestFactory is deprecated
- CapabilityHolderFactory and CapabilityHolder are not used anymore. WURFLEngine.setCapabilitiesHolderFactory is deprecated

NOTICE: from version 1.11.0.0 all Java API example application will only provide source code and build files.

1.10.0.0 - September 24, 2018

- Potentially breaking change: Please note that this version standardizes tvOS return values for advertised_device_os and advertised_browser capabilities and aligns them to Apple's branding practices. "TV OS" will henceforth be called "tvOS" and "TV OS App" will be renamed to "tvOS App"
- Added support for
  - new Chromium and Gecko based browsers
- Expanded support for
  - app detection via is_app, is_app_webview and advertised_app_name
  - KaiOS based devices
  - PlayStation devices
  - Apple TV devices

1.9.5.0 - July 23, 2018

- Deprecated UserAgentPriority enum:

    - The optional parameter OverrideSideloadedBrowser is used as default in DefaultWURFLRequest constructor. Setter will have no effect. getter will always return OverrideSideloadedBrowser. It wil be removed in a future release.
    - EngineTarget. It will be removed in a future release.
- Aligned some return values for the advertised_device_os virtual capability to align with device_os static capability
    - "Bada" is now "Bada OS"
    - "Nokia Series 40" is now "S40 OS"
    - "Symbian" is now "Symbian OS"
- Added support for
    - Certain Android P User-Agents
    - Certain TV OS User-Agent formats
    - Digital Assistants
    - New Opera browser versions
    - New Tizen versions
    - Upcoming Android and iOS versions
    - New tvOS versions
- Improved support for is_app capability for SmartTV devices
- Expanded app detection support via is_app and advertised_app_name
- Optimized model name extraction for certain Android apps that send irregular User-Agent structures
- Fixed an issue that caused certain Fire OS webview User-Agents to be misclassified within is_app and is_app_webview

1.9.4.0 - May 21, 2018

- Added support for
    - Upcoming iOS versions
    - MIUI Browser
    - Quark Browser
    - Avast Secure
- Improved support for
    - Apple iPad (6th gen)
    - Sony and Vizio Smart TVs
    - Roku devices
    - App name detection (advertised_app_name)
    - Microsoft Office
    - Yandex browser
    - Baidu Browser
    - Apple Core Media User-Agents

    - Facebook Messenger
- Deprecated getAllMandatoryCapabilities() of WURFLEngine implementation - since 1.8.0.0 wurfl engine takes care of loading/checking that vcap needed static capabilities are present.

1.9.3.2 - April 23, 2018

- Added new virtual capability generalized_os_brand
- Added new virtual capability generalized_browser_type

Version 1.9.3.1 - April 4, 2018

- Fixed Roku regression
- Support for case insensitive headers in WURFLRequest impl.
- Deprecated WURFLRequestFactory and its implementation. Please check Javadoc for more info.
- Deprecated WURFLEngine.getMarkup()

Version 1.9.3.0 - March 19, 2018

- Potentially breaking change: The definition of what we consider smartphones is changing with this release. Please read this article for more details on what is changing and why - https://www.scientiamobile.com/keeping-smartphones-smart

- Added support for

    - KaiOS
    - Tizen 4.0
    - Some Android media players
- Improved detection of

    - Robots and Crawlers
    - Mobile and desktop applications
    - Smart-TVs
    - SmartPhones
    - Game consoles

Version 1.9.2.0 - December 13, 2017

- Added support for

    - Upcoming iOS versions
    - Upcoming Tizen versions
    - Extracting model numbers for desktop devices under certain conditions

- Improved detection of
    - Opera Mobi and Tablet on Android
    - Requests from UCBrowser's U2 engine

Version 1.9.1.1 - November 27, 2017

- Improved engine loading

Version 1.9.1.0 - November 6, 2017

- Breaking: The default version of Android is now 4.0. Undetecteable/corrupted Android User-Agents will now return a more appropriate OS version.
- Added support for
    - Upcoming iOS versions
    - Upcoming Android versions
    - Edge browser on iOS and Android
    - Steam in-game requests
    - Firefox Focus
    - Yandex Desktop
- Improved detection of
    - Fire OS
    - iPhone hardware
    - Apps
    - Huawei devices
    - Firefox on Android User-Agents
    - Android and iOS UCbrowser User-Agents
    - Edge browser
- Added additional validation for advertised_device_os

Version 1.9.0.0 - August 25, 2017

- Decommissioning of engine target options
- Improved detection of
    - Android
    - Bots
    - Apps
    - Amazon Silk Browser
    - CFNetwork User-Agents
- Added support for
    - Epiphany detection

    - iOS 11
    - Samsung Dex
    - Samsung Browser
    - Tizen 3.0
- Added stripping of non-printable characters from the User-Agent

Version 1.8.4.2

Ehn: Improved various internal object creation Fix: Exception in Device.getCapabilities() Fix: virtual capability addition to capability cache in some corner cases

Version 1.8.4.1

- Ehn: aligned default "app_name" value to "Stock Browser" value (was: "stock_browser")
- Fix: loading of entire capability map in device object
- Fix: inconsistency in some virtual capability values

Version 1.8.4.0

- Add: detection of Nintendo Switch
- Add: detection of Email client
- Ehn: improved detection of devices with encoded user agents
- Ehn: updater url check when using proxy settings
- Fix: Android 4.4/5.x mistakenly classified as apps

Version 1.8.3.2

- Fix: advertised_device_os and advertised_device_os_version detection for Palemoon browsers

Version 1.8.3.1

- EHN: various WURFL updater improvements

Version 1.8.3.0

- Add: support for upcoming iOS and Android versions
- Add: support for new Microsoft Edge browsers
- Ehn: detection of some Nintendo devices running Access/Netfront browsers
- Ehn: detection of macOS User-Agents

- Ehn: improved checks on updater module

Version 1.8.2.1

Fix: API loading issue with spring webapps

Version 1.8.2.0

- Add: iOS 10.2 hardware IDs
- Add: new virtual capability - advertised_app_name
- Enh: detection of MSIE browsers with alphanumeric versions
- Enh: UAs originating from Google Search app on iOS
- Enh: support for Microsoft Edge and Opera browsers
- Fix: robot, Kindle and Windows Phone detection

Version 1.8.1.0

- Add: Android 7.1 devices
- Add: Iphone 7 and 7 plus device
- Add: support for Amazon mobile app
- Enh: Refactored virtual capability API
- Enh: Improved is_app virtual capability detection
- Enh: Review of patch file load process

Version 1.8.0.0

- Add: module for automatic WURFL file update
- Add: Support for url-encoded UAs
- Enh: Better iPod Touch detection
- Enh: Better Facebook and Mobile App detection
- Add: Chinese Android detection
- Add: Android 7 (N) detection
- Enh: Mandatory Capabilities are automatically loaded during engine load
- Enh: Major performance improvements
- Fix: bug on applyPatch of GeneralWURFLEngine
- Fix: screen size not properly detected for certain devices
- Add: iOS 10 devices

Version 1.7.1.0

Add: Palemoon Browser detection Add: Bravia, SmartTV detection Add: iOS 10 and new iOS devices detection Add: Desktop App detection Fix: IIS detection issues Fix: controlcap mechanism

Version 1.7.0.0

Add: WURFL.XML deviceIds consistency check Add: New virtual capability: device_name Enh: Improved detection of Apple devices Enh: Improved detection Edge browser

Version 1.6.4.1

Fix: Added mandatory capabilities for advertised capabilities

Version 1.6.4.0

Enh: Improved detection of Nokia devices Enh: Improved detection of Android User-Agents (UAs) without model names Enh: Improved detection of Certain feature phones running Opera Mini Enh: Improved detection of SmartTVs Enh: Improved detection of UAs from Android apps Enh: Improved detection of Blackberry Playbook Enh: Improved detection of Bot UAs Enh: Improved detection of Firefox on iOS Enh: Improved internal UA matching methods

1.6.3.0 Enh: Improved detection of Apple devices Enh: Improved detection of Bots Enh: Improved detection of Androids Enh: Improved detection of Edge browser Enh: Improved virtual capability computation for Safari on iOS Enh: Improved virtual capability computation for Samsung Browser Enh: Improved virtual capability computation for BlackBerry 10 Enh: Improved virtual capability computation for Mac OS X Enh: Improved is_app_webview virtual capability computation for Android 5.X Enh: Improved CFNetwork UAs detection

Version 1.6.2.2

Fix: IsSmartphone virtual capability computation

Version 1.6.2.1

Enh: Improved detection of iPhones

Version 1.6.2.0

Enh: Improved detection in VC tool for MSIE 12/Edge Enh: Improved detection of Windows Phone Enh: Improved detection of Bots

Version 1.6.1.0

Enh: Improved detection in VC tool for Baidu browser Enh: Improved detection in VC tool for iOS Enh: Improved iOS device detection Enh: Improved Opera browser detection Enh: Improved FirefoxOS detection

Version 1.6.0.1

Enh: Improved detection in VC tool for MSIE 12/Edge Enh: Improved detection of Windows Phone Enh: Improved detection of Kindle Enh: Improved detection of SmartTV Enh: advertised_* virtual capabilities are now computed much faster than before.

Version 1.6.0.0

Add: Android 5.1 support Add: MSIE 12/Edge 12.0 support Add: Tizen 2.3 support Add: Trove Bot detection Add: Windows Phone 10 support Add: New is_phone and is_app_webview virtual capabilities Enh: Improved WURFL detection performances Enh: Improved detection of Android, CFNetwork, Chromium, Firefox OS, MSIE 12/Edge, Opera, SmartBrowser, SmartTV, UCWebBrowser, Wii

Version 1.5.4b

Add: CFNetwork detection Enh: Android 5.1 detection

Version 1.5.3.1

Fix: Windows Mobile virtual capabilities detection Fix: improved BotMatcher Detection matching logic

Version 1.5.3.0

Add: 360 Browser (for Desktop and Android) detection in VC tool Add: Opera on Android detection in VC tool Add: Opera on iOS detection in VC tool Add: iOS 8.1 and 8.2 WURFL hardware IDs Add: Windows 10 detection Enh: LD Algorithm Enhancement

Version 1.5.2.1

Enh: improved form_factor virtual capability

Version 1.5.2

Enh: improved detection of: - Android - Apple - Firefox OS - Internet Explorer - Opera - Smart TVs - Tizen - Ubuntu OS - Windows Phone - Windows RT Enh: improved existing virtual capabilities Add: added virtual capabilities: - complete_device_name : The brand_name, model_name and marketing name (if applicable) - form_factor : Tablet, Smartphone, Feature Phone, Robot, Desktop, Smart-TV, Other Non-Mobile Add: added support for iOS 8 Add: added the ability to detect sideloaded browser instead of the device with its stock browser

Version 1.5.1.2

Fix: minor bug related to XML parsing

Version 1.5.1.1

Enh: is_app virtual capability logic has been improved. Enh: User agent extraction procedure has been refined.

Version 1.5.1

Add: Thunderbird, Microsoft Outlook and MSOffice matching on desktops. Add: Added recognition for three characters locale inside a user agent. Enh: Apple devices matching logic has been improved. Enh: Tweaked Android devices model and version recognition, improved Android matching logic. Enh: Improved Samsung matching logic. Enh: Improved LG matching logic. Enh: Improved Windows Phone matching logic. Enh: Updated Pantech matching logic. Enh: Updated XBox matching logic. Enh: Updated Apple devices matching logic. Enh: Enhanced Virtual Capability computation logic. Add: Added mandatory capabilities to be specified when requesting for a particular capability subset.

Version 1.5.0.2

Fix: Opera matcher logic

Version 1.5.0.1

Enh: virtual capabilities heuristic improved for Symbian User-Agents Enh: multi-threading synchronization enhanced

Version 1.5

Add: Capability filter feature Add: Many more virtual capabilities now available Enh: New WURFLEngine is now the one and only entry-point interface Enh: Several matchers improved Fix: Aligned all matchers with the new specifications

Version 1.4.4

Add: Support for new iOS naming in "device_os" capability Enh: Android and Firefox version matching Enh: Opera on Android matching Enh: XBox user agents matching Fix: Windows RT recovery ID

Version 1.4.3.1

Fix: HTTP header parsing issue

Version 1.4.3

New: support for WindowsRT, Kindle Fire, XBox and Playstation Vita Enh: matching of particular Windows Phone, Safari, SmartTV and Maemo UAs

Version 1.4.2.1

Fix: resource unlock failure in particular conditions Fix: wurfl.xml repository reload failure in non-initialized core conditions

Version 1.4.2

Fix: SmartTV matching of particular UAs

Version 1.4.1

New: added Virtual Capability feature see net.sourceforge.wurfl.core.Device Javadoc for more details

Version 1.4.0.3

Fix: fixed Mobile Chrome being detected as Desktop web browser

Version 1.4.0.2

Fix: restored servlet context listener capability to retrieve wurfl.zip from context-relative path (e.g. "WEB-INF/wurfl.zip")

Version 1.4.0.1

Fix: samsung matching of particular UAs

Version 1.4.0

Enh: New minimum Java SDK requirement. Tha minimum Java SDK version required by WURFL API to be compiled has changed from 1.4 to 1.5 New: Added HighPerformance engine target New: CacheProvider interface now includes `Device getDeviceFromDeviceId(String deviceId);` New: Added Introspector servlet to remotely inspect a running WURFL instance Enh: Faster, more efficient cache implementation Enh: Decoupled Spring framework and removed `net.sourceforge.wurfl.spring`