Category:S60 3rd Edition

General description of the release

Main new features:

- Graphics hardware acceleration support in Symbian^3 – Mobile 3D Graphics API is accelerated by a 3D GPU, and graphics performance is optimized for mixing 2D and 3D graphics.
- Improved security user experience - The Java Runtime shows the user fewer security dialogs during runtime. For certified MIDlets, full permissions can be granted in one go.
- Improved installation user experience - The user needs to accept only a single confirmation dialog when installing a MIDlet.
- Improved MIDlet start-up experience - The Java Runtime displays an instant start-up screen and also loads faster.

Java Runtime 2.1 is available on Symbian^3 devices. It is also available for S60 3rd Edition devices as an add-on you can download from Nokia Developer.

The Beta release of JRT 2.1 is available for selected S60 3rd Edition devices. The Beta release works with the following devices and software versions:

- Nokia N85, software version 31.002.53.1 and newer

The final Java Runtime 2.1 release will be compatible with all S60 3rd Edition devices with the latest firmware.

Complete list of Java APIs

- JSR 118 MIDP 2.1
- JSR 139 Connected, Limited Device Configuration (CLDC) 1.1
- JSR 248 Mobile Service Architecture Subset for CLDC 1.0
- JSR 135 Mobile Media API 1.2
- JSR 172 J2ME™ Web Services Specification 1.0
- JSR 177 Security and Trust Services API for J2ME™ 1.0 (SATSA-APDU package) **NEW**
- JSR 177 Security and Trust Services API for J2ME™ 1.0 (SATSA-CRYPTO package)
- JSR 177 Security and Trust Services API for J2ME™ 1.0 (SATSA-PKI package)
- JSR 179 Location API for J2ME™ 1.0.1 **UPDATED**
- JSR 184 Mobile 3D Graphics API for J2ME™ 1.1
- JSR 205 Wireless Messaging API 2.0
- JSR 226 Scalable 2D Vector Graphics API for J2ME™ 1.1
- JSR 234 Advanced Multimedia Supplements 1.1 (audio3d)
- JSR 234 Advanced Multimedia Supplements 1.1 (music)
- JSR 256 Mobile Sensor API 1.2
- JSR 75 FileConnection and PIM API 1.0
- JSR 82 Java™ APIs for Bluetooth 1.1
- Nokia UI API 1.4 **NEW**
- eSWT UI API 1.0.3
- IAP Info API

List of new APIs and features

General

- Contribution of the Java Runtime to Symbian Foundation as open source
- Improved MIDlet start-up experience
- Improved MIDlet installation user experience
- Improved security user experience
- Networking connectivity improvements
- Ability to deploy MIDlets as a single file using MIDlet Messages
- Support for localized MIDlet names

Multimedia

- AudioOutputControl extension for controlling audio output (see Nokia UI API)
- MMAPI progressive download of audio over HTTP **(Symbian^3)**
- Support for HD video and HDMI output **(Symbian^3)**
- Support for the Matroska Multimedia Container format **(Symbian^3)**

Other APIs

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- Access to SIM applications with SATSA-APDU (JSR-177)
- PlatformRequest extension that allows MIDlets to launch other MIDlets and native Symbian applications and pass arguments to them
- Location API 1.0.1: ProximityListener support **(Symbian^3)**

User interface

- Nokia UI API v1.4
  - New TextEditor API that allows MIDlets to access platform editors directly in Canvas
  - Screen saver prevention via DeviceControl
  - Saving text to the system clipboard
  - AudioOutputControl extension for controlling which audio output device, for example the device loudspeaker or earpiece, is used to play back audio
- MIDlets can define a splash screen that is displayed on start-up
- Popup textbox mode as default for LCDUI TextBox
- Automatically detect the need for Java On-screen Keypad
- Advanced tactile feedback in UI components **(Symbian^3)**
- Single tap support for LCDUI and eSWT UI components **(Symbian^3)**

Note: The features marked with **(Symbian^3)** are not available in the beta release.

When JRT 2.1 is run on Symbian^3 devices, the following hardware-dependent features are available to MIDlets:

- 3D graphics hardware acceleration and optimized mixing of 2D and 3D graphics
- Support for HD video and HDMI output

List of devices that have JRT 2.1 pre-installed

- Nokia N8

List of devices for which JRT 2.1 is offered as an add-on

- Nokia N97
- Nokia 5800XpressMusic
- Nokia N97 Mini

Known issues related to this release

- TBD

Tools

- Nokia Symbian^3 SDK 0.8

How to check the Java release version

To retrieve the Java release version number, use the standard System.getProperty() method:

```
System.getProperty("microedition.platform");
```

The returned string reads something like this:

```
Nokia5800d-1/20.0.012/sw_platform=S60;sw_platform_version=5.0;java_build_version=1.3.4
```

In the string, java_build_version indicates the Java release version, in this case 1.3.4.

See also

- What's new in Java Runtime 2.1 for Symbian^3
- Java Runtime for Symbian in Nokia Developer Java Developer's Library
- How to retrieve version number of Java Runtime for S60
- Naming and versioning of Java Runtime for Symbian

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