Java Runtime 2.1 for Symbian Release notes

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.

NOTE: This is an update for S60 5th Edition devices, like Nokia 5800 XpressMusic. Newer Symbian devices has Java Runtime 2.1 (or newer) pre-installed. Please check your Java Runtime version before installing this update by entering *#0000* in the phone. Symbian^3 devices, like Nokia N8, has Java Runtime 2.1 (or newer) pre-installed.

The Beta release of JRT 2.1 is available for selected S60 5th Edition devices. The Beta release works with the following devices and software versions:

- Nokia 5800 XpressMusic, software version 40.x.xxx and newer
- Nokia N97, 12.x.xxx and newer
- Nokia N97 mini, 10.x.xxx and newer

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)**

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Other APIs

- 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

- All the Symbian^3 devices have JRT 2.1 (or newer)
- Nokia N8
- Nokia C6-01
- Nokia E7-00
- Nokia C7-00

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 0.9

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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