Nokia Smart Installer for Symbian

Nokia Smart Installer for Symbian is a deployment solution that ensures that third-party applications always have access to the required versions of their dependent libraries. The most common use is to declare dependency to Qt libraries to ensure end users who install Qt applications have latest Qt libraries available for the application.

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This article provides an overview of the Smart Installer, lists of the dependency libraries it can deliver, and links for more information. For more concise information of what Qt modules are supported in Symbian devices at the moment and what modules are available via Smart Installer refer to: Support for Symbian topic from Qt Developer Network.

Smart Installer is enabled to Symbian application installation package (SIS-file) when applications are created. Developer enables this via Qt SDK (see below Develop & Publish section). Within Qt SDK the developer defines the dependent libraries that the application needs to the qmake .pro file. Qt SDK packages Smart Installer bootstrap component to the SIS file. Then application can be deployed, for example, to Nokia Store. Once end user has downloaded a Smart Installer enabled package the device starts the install process for this package. During this step the first thing to happen is that the Smart Installer bootstrap component part of the package initiates the library dependency checking process before actually installing the application itself. The dependency checking process requires another component called Smart Installer ADM. The ADM component itself is downloaded and updated when necessary to the device. Once Smart Installer has updated other necessary libraries to the device it installs the actual application.

Availability

Current release: 1.1 (SIS package version 0.46.0)

The current version of the Smart Installer bootstrap is included in the Qt SDK**.** You can easily enable Smart Installer packing to your Qt application from Qt Creator project settings.

If you do not use Qt SDK and Qt Creator you can download Smart Installer also from this wiki. Download now

Develop & Publish

The Qt Creator IDE of Qt SDK provides a "Create Smart Installer package" switch in Projects view in Symbian Device Build (for Windows). This bundles Smart Installer's bootstrap component as part of the application SIS file. Note that in Windows the Qt Creator build for Symbian Device outputs two SIS files other without Smart Installer and another with Smart Installer (look for "installer" in the SIS name to find the Smart Installer enabled SIS file). The qmake .pro file is used to control the necessary UIDs that are generated during the build process to .pkg files and to the SIS files. The idea is that Qt application developers do not touch .pkg files but add relevant information to .pro file instead.

Here is a guide that details the manual steps to take to package your SIS with the Nokia Smart Installer if you do not want to use Qt Creator: Smart Installer for Symbian Manual.

This video also shows you how to use Qt Creator in Windows to enable Smart Installer in application SIS package:

The media player is loading...

Packages distributed by Smart Installer

The following libraries are currently hosted on Nokia's Smart Installer server and can be declared as dependencies by applications packaged with the Smart Installer solution.

Qt 4.6.3 release for Symbian 3rd and 5th Edition

Package name	Package UID	Version	Download size	Drive space required	Installation drive	Description
Stdcpp	0x2000F866	1.6.0	0.2 MB	0.2 MB	c:\	Standard C++ library Common
OpenC_SSL	0x200110CB	1.6.0	0.8 MB	0.8 MB	c:\	Open C LIBSSL Common
PIPS	0x20013851	1.6.0	1.2 MB	1.4 MB	c:\	PIPS Installer
Sqlite	0x2002AF5F	0.5.0	0.2 MB	0.2 MB	c:\	Sqlite library
Qt	0x2001E61C	4.6.3	5.8 MB	5.9 MB	c:\	Qt libraries
QtWebKit	0x200267C2	4.6.3	2.9 MB	3.0 MB	c:\	QtWebKit library
QtMobility	0x2002AC89	1.0.2	1.0 MB	1.0 MB	c:\	QtMobility library

Qt 4.7.3 release for S60 5th Edition

Package name	Package UID	Package version	Download size	Drive space required	Installation drive	Description
Stdcpp	0x2000F866	1.7.0	0.2 MB	0.2 MB	c:\	Standard C++ library Common
OpenC_SSL	0x200110CB	1.7.0	0.8 MB	0.8 MB	c:\	Open C LIBSSL Common
PIPS	0x20013851	1.7.5	1.2 MB	1.4 MB	c:\	PIPS Installer
Sqlite	0x2002AF5F	0.5.0	0.2 MB	0.2 MB	c:\	Sqlite library
Qt	0x2001E61C	4.7.3	5.8 MB	5.9 MB	c:\	Qt libraries
QtWebKit 2.0	0x200267C2	4.7.3	2.9 MB	3.0 MB	c:\	QtWebKit 2.0 library
QtMobility	0x2002AC89	1.1.3	1.0 MB	1.0 MB	c:\	QtMobility library

Qt 4.7.3 release for Symbian Anna and Symbian^3

Package name	Package UID	Package version	Download size	Drive space required	Installation drive	Description
Qt	0x2001E61C	4.7.3	5.8 MB	5.9 MB	c:\	Qt libraries
QtWebKit 2.1	0x200267C2	4.8.0	2.9 MB	3.0 MB	c:\	QtWebKit 2.1 library
QtMobility	0x2002AC89	1.1.3	1.0 MB	1.0 MB	c:\	QtMobility library

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Qt 4.7.4 release for Symbian Anna and Symbian^3

Package name	Package UID	Package version	Download size	Drive space required	Installation drive	Description
Qt	0x2001E61C	4.7.4	7.7 MB	7.6 MB	c:\	Qt libraries
QtWebKit 2.1	0x200267C2	4.8.1	4.4 MB	4.6 MB	c:\	QtWebKit 2.1 library
QtMobility	0x2002AC89	1.2.1	2.4 MB	3.0 MB	c:\	QtMobility library

Note: Nokia Belle release has Qt 4.7.4, Mobility 1.2.0 and WebKit 2.1.1 (4.8.1) in-built in ROM. Hence Smart Installer won't deliver any updates for Nokia Belle devices. This will be the case in the future Symbian releases as well. Qt is released as part of Symbian release and is not planned to be updated via Smart Installer, only via firmware update. For the same reason do not attempt to install Qt binaries from the SIS files provided in the SDK either, they are not meant to unpgrade/downgrade/restore the components included in ROM.

Tip: You don't know if you should install a SIS file from the SDK on your development device? Use the QtInfo utility from the Nokia Store to list the Qt modules installed on device and their version. If the components are not already in ROM (see table above) you can install the missing component from the SDK binaries.

Note: Mobility 1.2.1 provided by Smart Installer is minor update to 1.2.0 in-built in Belle. Belle devices will get Mobility 1.2.1 via firmware update.

Qt Quick Components for Symbian Anna and Belle

Qt Quick Components is a separate **add-on module** on top of *Qt Quick*. Qt Quick itself is part of Qt starting from Qt 4.7. See description of difference between Qt Quick and Qt Quick Components from API reference.

Package name	Package UID	Version	Download size	Drive space required	Installation drive	Description
Qt Quick Components 1.1	0x200346DE	1.1	1.6 MB	? kB	c:\	Qt Quick Components 1.1 is a set of UI components to be used in Qt Quick applications. These components implement the updated Symbian Design Guidelines. The Qt Quick Components 1.1 include key new features over 1.0 release.

Note: Qt Quick Components 1.0 package is not anymore available in Smart Installer. Smart Installer will only provide Qt Quick Components 1.1 package. 1.1 package includes both Qt Quick Components versions 1.0 and 1.1.

Notifications API

You need to use the Qt SDK 1.2 to ensure that the Smart Installer related dependency works as planned. It makes use of the version numbers given on this page. Sometimes the Smart Installer service may pull a newer version (with higher version number) of Nokia notification support package if there is one available. At its minimum the Smart Installer related dependency in the <application_name>_installer.pkg file of your application needs to correspond the values given on this page. This is a MUST requirement to get your application signed by Nokia Store process.

Package name	Package UID	Version	Download size	Drive space required	Installation drive	Description
ClientPlatform (S60 5:th Edition, S60 3rd Edition FP2)	0x1028299F	8.2.340	0.3 MB	0.3 MB	c:\	Notifications API support
Notifications Support Package (S60 3rd Edition FP2, Qt 4.6)	0x2002EAB3	1.1.111300	0.1 MB	0.1 MB	c:\	Notifications API support
Notifications Support Package (S60 5:th Edition, Qt 4.7)	0x2002EAB3	1.4.312150	0.1 MB	0.1 MB	c:\	Notifications API support
Notifications Support Package Launcher (S60 3rd Edition FP2, Qt 4.6)	0x2002EAB4	1.1.111300	0.6 MB	1.0 MB	c:\	Notifications API support
Notifications Support Package Launcher (S60 5:th Edition, Qt 4.7)	0x2002EAB4	1.4.312151	3 MB	1.6 MB	c:\	Notifications API support
Notifications Support Package Launcher (Symbian^3 and Anna, Qt 4.7)	0x2002EAB4	1.4.312152	0 MB	2.2 MB	c:\	Notifications API support
Notifications Support Package Launcher (Nokia Belle, Qt 4.7)	0x2002EAB4	1.4.312151	5MB	1.7MB	c:\	Notifications API support
Notifications Support Package Launcher (Nokia Feature Pack 1, Qt 4.8)	0x2002EAB4	1.5.312151	8 MB	2.0 MB	c:\	Notifications API support
SSO (Symbian^3, Qt 4.7)	0x2002615B	1.6.202	1.7 MB	0.8 MB	c:\	Notifications API support. SSO1.6.202 package may be installed together with some other Nokia applications such as Nokia Store.

Smart Installer supports now also partial updates for Notifications Support Packages for Symbian^3 from version 1.2 onwards.

Package name	Package UID	Version	Download size	Drive space required	Installation drive	Description
Notifications Support Package Launcher (Symbian^3 and Anna NNSP version 1.2 onwards, Qt 4.7)	0x2002EAB4	1.4.312151	7MB	1.9MB	c:\	Notifications API support
Notifications Support Package Launcher (Nokia Belle, Qt 4.7)	0x2002EAB4	1.4.312151	5MB	1.7MB	c:\	Notifications API support
Notifications Support Package Launcher (Nokia Feature Pack 1, Qt 4.8)	0x2002EAB4	1.5.312151	4MB	1.6MB	c:\	Notifications API support

In-Application Purchase

Note: In-application Purchase API client depends on OVI Store client and a certain version Qt and QComponents. Store client and Qt update may be fetched on device by Smart Installer if those component versions on device is older than required. In that case download size can be vary, up to 12MB

Package name	Package UID	Version	Download size	Drive space required	Installation drive	Description
IAP	0x200345C8	3.23.10 (06.06.2012)	0.3 MB	0.3 MB	!:\	In-Application Purchase API middleware

Supported Devices

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Smart Installer is fully supported in Symbian Anna and Symbian^3 devices. Earlier devices or OS releases have limitations as explained below. Nokia Belle devices have Qt in ROM and it is not intended to be updated by applications via Smart Installer but only when user does device firmware upgrade via Ovi Suite or over-the-air.

From a pure technical perspective the solution is designed to work with all Symbian/S60 3.1 and later devices. There are however some exceptions which are listed under Devices not supported by Smart Installer. The Smart Installer solution can be used to deploy any of the supported products to any of these devices, provided that proper compatibility testing is done for the application itself.

Please note that the Smart Installer will check with the server if the device is known and supported, and this verification will fail for non-Nokia devices using Symbian OS.

Devices with limited Smart Installer support

Device name	Reason
All S60 3rd Ed FP1 (S60 3.1) and S60 3rd Ed FP2 (S60 3.2)	Qt 4.7 is not supported on these devices. The Smart Installer can only deploy Qt 4.6 to them.
All S60 3rd (3.1/3.2) and 5th Edition devices	Qt Quick Components is not supported on these devices. Note: S60 5th Edition devices support Qt 4.7 which contains Qt Quick. In S60 5th Ed. however, Qt Quick *Components* are currently not supported.
Nokia 6650 AT&T variant	PIPS cannot be upgraded and therefore Smart Installer cannot deploy Qt to this device.
Nokia N96	Not supported by Qt

Note: On all Symbian devices prior to Nokia Belle Qt and Open C components are installed (e.g. via Smart Installer) or pre-installed (in the factory or support service) as part the user data in the content of the device C:\ drive. It is a known issue that after a hard reset of the phone relevant information required by the Smart Installer may be lost, which causes the installer to fail in deploying the required components.

Nokia Store support for Smart Installer based deployments

It is possible to use Smart Installer for different application deployment channels to Symbian devices e.g. for deployment via web pages. Nokia Store is however the preferred channel for application deployments.

Qt applications need to be Smart Installer enabled when deployed using Nokia Store. Nokia Store accepts Smart Installer packaged Qt applications for a number of Symbian and S60 devices. You can see the currently up to date list from the Distribute section of the Nokia Developer website. The list will be updated as more devices are added passing the acceptance testing.

Subscribe to this RSS feed to stay up-to-date with the changes in the list of devices supported by Nokia Store.

Where to find help?

If you are running into problems packaging your application with the smart installer, please post your questions on the Nokia Smart Installer for Symbian forum, in Nokia Developer's Discussion Boards.

The installer creates logs under **c:\logs\ADM** but you may need to create the directory first. Use a file manager which gives you full access to the file system, the built-in one shows c:\Data as the root of the phone memory. Use these logs to look for the source of the error and post the relevant parts with your problem description.

Of course, using Nokia Developer's Professional Support service is also an option.

Change Log

04.08.2010 - Updated Mobility to version 1.0.2 from version 1.0.1

~~23.09.2010 - (*) Please note that the Qt Mobility 1.0.2 is not currently available for Nokia N8 and the other Symbian^3 devices. Any applications declaring dependency to this package will fail to install on these smartphones. **Subscribe** to update notifications from on this page to learn about package status changes.~~

05.10.2010 - Qt Mobility support for Nokia N8 now fully enabled.

24.11.2010 - Nokia Smart Installer for Symbian, v1.1 released. New package available for download on this wiki page (see above) or as an update through the Nokia Qt SDK 1.0.2

13.04.2011 - Added support for Notification API

04.05.2011 - Smart Installer has now official support for Qt 4.7.3 as well.

11.07.2011 - Updated Notifications API version information (was in fact effective for quite some time already).

09.08.2011 - Updated Qt Quick Components add-on module information

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