Creating Qt Applications for Maemo

Lecture 2: Exercises

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Note that the qmobilepaint exercises are intended to be performed as a sequence. Exercises 1 & 2 do not involve any file modifications, so in case you are familiar with these topics you can freely skip them.

The source code for the exercises is located under the exercises/qmobilepaint_exercise directory. The complete solution for the qmobilepaint is available in the qmobilepaint_exercise_sol directory.

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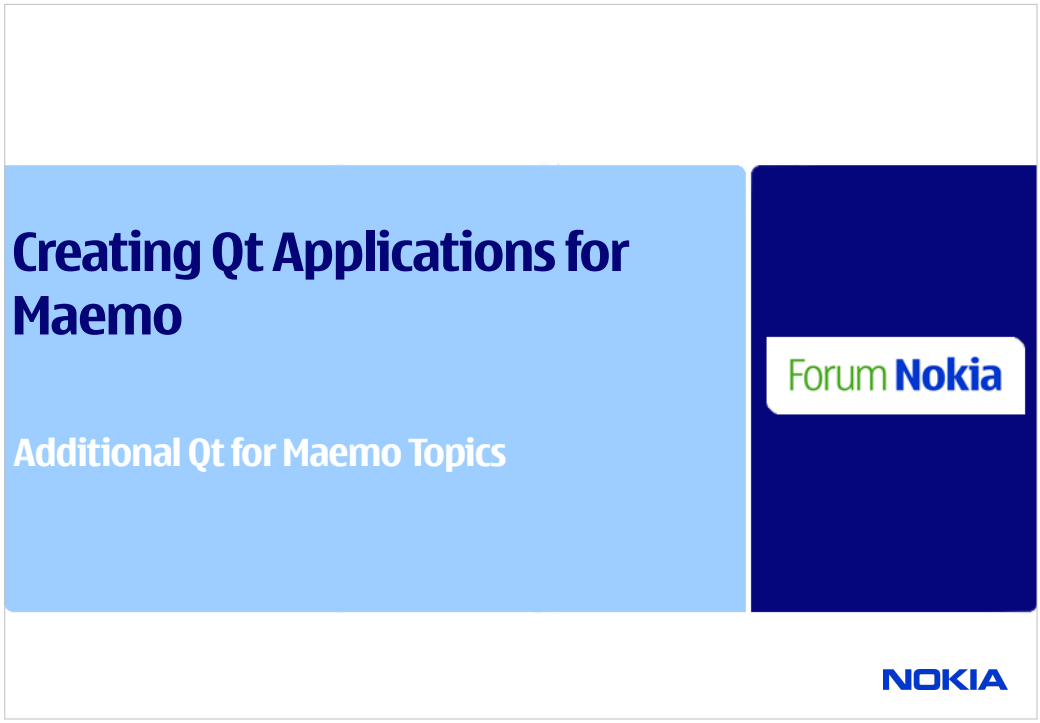

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Exercise 5: Utilize D-Bus with Qt

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- Some Maemo-specific tasks require using D-Bus interprocessing communication mechanism. Your task is to implement minimizing qtmobilepaint application with D-Bus.

1. Look for the ”EXERCISE DBUS” tags in “widget.cpp”. Send a minimizing signal using the Qt D-Bus module
   - Include the Qt D-Bus headers
   - Create and send the actual signal. Here are the details you need:
     - path is just ”/”,
     - interface is ”com.nokia.hildon_desktop”, and
     - signal is ”exit_app_view”
   - Remember that this functionality is Hildon-specific! How should you take that into account?
2. Look for the same tag in the ”src.pro” file. Add Qt D-Bus module to the project
   - Remember again that the D-Bus is not available in all platforms and needs to be variated
3. Build the application and verify the behavior with a device or Scratchbox

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The objective of this exercise is to get familiar with using D-Bus which is essential in Maemo applications.

The visibility of the Minimize-button is variated in ”toolbarwidget.cpp” (button handling was left out from this exercise).

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Exercise 6: Fix Storage Locations

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- Qt for Maemo is evolving rapidly and the qmobilepaint exercise contains some obsolete code for opening/saving pictures. Your task is to update the code.

1. Check the existing behavior of opening/saving pictures with the qmobilepaint
2. Look for the ”EXERCISE STORAGELOC” tags in ”widgets.cpp”. How would you improve the functionality having studied this topic during the course?
3. After implementing your changes, recompile and verify the results. The proposed opening/saving directory should make sense.

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