Working with Windows Phone devices with 256 MB of memory

This article provides an introduction to the information on this wiki that will help you prepare your apps for Windows Phone devices with 256 MB of memory, such as the Nokia Lumia 610.

Overview

Windows Phone now offers a 256 MB memory configuration to phone manufacturers. Nokia introduced its first 256 MB memory configuration phone at Mobile World Congress 2012: The Nokia Lumia 610. In addition to the new memory configuration, the Nokia Lumia 610 is the first Lumia to use the Qualcomm Snapdragon S1 7227A chipset. The purpose of this memory configuration and chipset choice is to enable more affordable Windows Phone devices, with the goal of expanding the Windows Phone to more markets and more consumers.

- Read more about the Nokia Lumia 610 launch >

Research by Nokia and Microsoft suggests that the vast majority of Windows Phone apps will run unchanged on 256 MB phones. However, while your apps still have a 90 MB of memory available to them on 256 MB phones, once an app uses more than 60 MB memory will be paged. It will therefore be best practice for apps to consume less than 60 MB where possible in order to ensure the best UX on any Windows Phone device. Nokia and Microsoft have put together a collection of best practice tips to help you do this. Following these tips will help keep your app's memory requirements to a minimum and give you the best opportunity to create an app for all Windows Phone owners.

- Check out the Best practice tips for delivering apps to Windows Phone with 256 MB.
- Also take a look at Optimizing Apps for Lower Cost Devices in The Windows Phone Developer Blog.

Of course, implementing best practices and knowing that you app's doesn't use too much memory are not quite the same thing. Fortunately, an update to the Windows Phone SDK (currently available as a technical preview) comes with features to help you discover information about your app's memory use (and there are some home grown solutions you can add to your apps too).

- Download the Windows Phone SDK 7.1.1 Update (and don't forget to install the Windows Phone SDK first).
- Check out the Techniques for memory analysis of Windows Phone apps.

There will be some app’s that simply won’t fulfil the requirements of 256 MB phones: it might be a game or an app that relies heavily on background tasks to deliver its functions. In these cases you’ll want to make sure it's only installed on phones where it can run. You do so by Opting your app out from Windows Phone with 256 MB.

On a slightly different subject, the Qualcomm Snapdragon S1 7227A processor used in the Nokia 610 supports a subset of the video codec available on the processors used in other Lumia smartphones. This means there is a new baseline for video encoding. Your video, and app that play it may, already be in line with the new baseline, but to be sure take a look at the Video playback guidance for Nokia Lumia 610.

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