# Nokia Imaging Wiki Competition 2013Q3

Competition Complete (04 Sep 2013): This competition is complete and the winners have now been announced. Thank you to all the entrants for competing, and creating so many interesting and informative articles.

## The Winners

The winners are listed below. The mathematically-inclined will note that an additional Lumia 1020 and Lumia 720 have been awarded, along with a number of accessory prizes!

1. Verdavaine Yan (yan_ ) for the article Memory-efficient Navigation in Very High Resolution Images on Windows Phone
   - This article delivers two re-usable UI controls which enable fluid and memory-efficient zoom, pan and rotate inside very high resolution (or gigapixel) images, using the Nokia Imaging SDK. We were impressed with the results achieved both on high and low memory devices - irrespective of the image size. Not only is this a significant technical achievement, but the article is well written, and provides useful information that is not covered by the Nokia Imaging SDK documentation.
   - Yan also contributed Optimizing Imaging SDK use for rapidly changing filter parameters (used by the winning article) and valuable feedback about the SDK
   - He selflessly helped many other developers in this competition with advice about their articles (including some of our other winners) and, on the discussion boards, with guidance on how to best use the SDK. As his contribution was "within the competition" we could not consider him for "Wiki Contributor of the Month" and "Discussion Board Poster of the Month". We will however be sending him a (bonus) Monster headset as a token of our appreciation!
2. Sebastiano Galazzo (galazzo ) for the article HDR I - Implementing High Dynamic Range filters using Nokia Imaging SDK
   - This article explains first how to implement an HDR engine and next how to combine Nokia Imaging SDK's filters with HDR source images to improve images and filters, and to create new filters. We particularly liked the innovation and ambition of this article - and some of the filters/image improvements are quite striking. Best of all, Sebastiano includes his prototype app, so you can try out your own combinations and find out what works best.
   - Sebastiano also contributed the article Neural Network based Image Processing, which provides a generic/re-usable library for working with neural nets - very cool indeed.
3. Toni Petrina (to_pe ) for the article Partial filter application and blending with Nokia Imaging SDK
   - This article works through a powerful image editing application, with main feature that a user can select part of the picture by 'painting' over it, apply a filter only to painted region, and blend the filtered region back into the original. The whole app is impressive, and the article does a good job of explaining how the main features are implemented. We liked the selection tools (and in particular the "magic wand") and all the options for blending.
4. Tomas Slavicek for his article Real-time camera effects on Windows Phone 7 and 8
   - This article demonstrates how to apply a real time "8-bit effect" camera effect (a picture composed of smaller images) - delivered in an app that can run on both Windows Phone 7 and Windows Phone 8 devices. The filter effect not supplied in the Imaging SDK, and we think it's pretty cool! We also liked this article because the technical solution (using XNA/Monogame) is a clever way of improving the refresh rate, and allows the solution to work on both Windows Phone 7 and 8, and also on lower-end devices. This is a bit more "hard core" than some of the other entries, but is still understandable and useful for others.
5. PedroQ for his article Using Nokia Imaging SDK in a Windows Phone game.
   - This article demonstrates an image-based quiz game, where the Nokia Imaging SDK is used to add effects to images to make them more challenging to recognise. We liked that the article showed a cool use for imaging outside of the context of an imaging or camera app. We also liked that the explanation of how to use filters was clear and concise.
   - PedroQ also contributed extremely valuable feedback about a problematic issue we had with the Nokia Imaging SDK NuGet installer. His solution was far from trivial and has resulted in a much better installation experience for all developers. While Pedro is no longer eligible to win the feedback prize, we're awarding him a (bonus) Monster headset as a token of our appreciation!

The SDK Feedback Winner is *aesirconsultancy* for requesting blending functionality like that provided by `writeableBitmap` .The request was made early on and was subsequently requested by a number of other users. We consider it good feedback because it shows a good understanding of what is offered by the SDK, and because we appreciate the importance of building


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bridges between the Nokia Imaging SDK and the hugely popular *WriteableBitmapEx* library. The SDK feedback part of the competition was extremely successful, with great feedback provided by a large number of developers, including wiki competition winners PedroQ and yan_ . Some of the feedback has already gone into the SDK and we're hoping a lot more will go into the next update.

Finally, an "Honourable mention" goes to RatishPhilip , who will receive a Lumia 720 for the article Filter Parameter Harmonization - Dynamic UI generation for filter parameters. This article explains how to create a single UI control which dynamically offers the correct UI elements (sliders etc) for editing the parameters of the currently applied filter. The article seemed quite different to others in the competition - along with Ratish's other articles (FilterSquare: Using Nokia Imaging SDK to create an innovative Filter App for Windows Phone 8, How to apply filters to specific image region using the Nokia Imaging SDK, Handling rapid imaging filter parameter changes using Rx) we thought it worthy of special mention.

Thank you also to the non-winning competitors. Many of your articles were particularly liked by one or more of the judges, but did not have enough support to win. All the entries had some merit and we are pleased to be able to host them on Nokia Developer wiki!

Please join me to congratulate all the winners on the discussion boards.

# Background to the competition

We're holding a wiki competition to celebrate the launch of the stunning new Nokia Lumia 1020 device and the Nokia Imaging SDK!

Prizes will be a Nokia Lumia 1020 device and membership of the Nokia Premium Developer Program for Lumia for up to four wiki contributors. A fifth winner will be selected for the best feedback we get on the Nokia Imaging SDK.

As this is a wiki competition we will be looking for great original articles, tutorials and guides that showcase the opportunities in imaging and photography on Lumia, and in particular from the new SDK and Nokia Lumia 1020.

## Getting Started

The *Nokia Imaging SDK* comes with great documentation and examples, which you can find in the Lumia Developer's Library:

- Nokia Imaging SDK documentation:
  - Quick Start
  - Nokia Developer Example Projects
    - Filter Effects - using different filters with camera photos and saving in the camera roll album.
    - Filter Explorer - explore image editing capabilities and performance by applying filter layers to images.
    - Real-time Filter Demo - Apply effects in real-time to the stream received from the camera and shown in the viewfinder.
  - API reference

Nokia Lumia 1020.

In addition, we have a lot of other great resources for using the camera and working with high resolution images

- Imaging (Lumia Developer's Library)
  - Advanced Photo Capturing
    - Camera Explorer (Example)
  - Working with high resolution photos
    - Photo Inspector (Example)

We recommend you download the SDK and dive into the resources above.


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## How to participate

Write a great tutorial, guide or an article with code which shows how to use the Nokia Imaging SDK or Camera and any other Windows Phone APIs related to imaging in useful, imaginative and innovative ways **and/or** provide the best feedback on the Nokia Imaging SDK.

Before creating an article you should also check out some of our existing pages in categories: Camera, Video, Imaging, Multimedia, and consider whether your article enhances the existing documentation in the wiki, libraries and SDK.

To make it interesting we will be breaking the competition into three segments and awarding the prizes as we go. Articles that don't win the first segment will still be eligible for subsequent sections - so there is a benefit to contributing early and improving your article(s) as the competition progresses.

Here are the competition rules:

- To enter, add a link to your article as a comment to this article.
- The article and associated Code Example are submitted under the site Terms & Conditions.
- Articles must be written in English. Translations may be provided in other languages, but only the English version will be judged.
- The article should include the text: **{{Note|This is an entry in the [[Nokia Imaging Wiki Competition 2013Q3]]}}**.
- Developers can create one or many articles, but there is only one prize per developer.
- Teamwork is allowed and even endorsed, but only one prize will be granted to a winning team (this will go to the person who *creates* the article initially). Teams may also receive additional complementary Nokia products.
- The wiki competition will be broken into three segments. Articles must be submitted by 23:59 GMT on the days which mark the competition segments listed below.
  - 4th Aug (Sun). First segment ends (+3 weeks).
  - 18th Aug (Sun). Second segment ends (+2 weeks)
  - 1st Sept (Sun). Final segment ends (+2 weeks)
- We will announce segment winners within the week following end of each segment. We will award a single winner for the first two segments and two winners for the final segment.
- One winner will be selected for the best feedback on the Nokia Imaging SDK, posted as a response to this discussion board post. The feedback must be submitted before 23:59 GMT on 1st September and will be announced with the other final segment winners.

See the fine print for more information.

## The prizes

All winners will receive a Nokia Lumia 1020 device and membership of the Nokia Premium Developer Program for Lumia. In addition, winning a Nokia Developer Competition gives you instant fame and kudos in the community and promotion through Nokia Developer channels. It also looks really great on your CV!

Notes:

- The devices are not yet available (at time of writing). They will be sent as soon as we can get hold of them from the factory.
- Unless prohibited by local law in the jurisdiction where you live, the device prizes are supplied under a "Device Access Services" warranty. In essence devices are covered by a "manufacturer fault" replacement warranty for 6 months from delivery of the original device.

## Evaluation of entries

Entries are judged first and foremost by the usefulness, quality and presentation of their technical information. Multiple entries are encouraged but will be assessed on their individual merits - so a single great entry will win over multiple less-good articles.

The entries will be judged by the Wiki Moderation team and selected Nokia technical experts after the competition period. The results for each part of the competition are expected to be announced within a few weeks of the end of the segments.

## Feedback

Feedback for the Nokia Imaging SDK must be added here. This can cover any aspect of the SDK (including the documentation and example code) and both problems and suggestions for improvement.

Generic questions or comments concerning this competition should be addressed as comments to this wiki page.


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## Stuck for ideas?

While we're looking forward to seeing some entries that showcase the possibilities provided by the Nokia Imaging SDK and the fantastic camera on the Nokia Lumia 1020, this competition is open to articles covering any and all aspect of working with images, camera and video.

Articles can highlight tips, tricks, and best practices for working with the imaging and camera APIs. Articles might demonstrate innovative use or combination of features, address real world use cases or provide comprehensive tutorial instruction.

To give you an idea of exactly how broad in scope we're hoping entries will be, below are a few ideas:

- Articles about features which can *only* be done on Lumia 1020 or which are *better* on Lumia 1020
- Enhanced camera and video photography - enhancing existing photography through new features. For example, adding a "horizon" overlay, or arbitrarily setting exposure or focus points through the camera UI
- Auto correction of images, image filters and effects applied as the picture/video is taken or applied as a post process, addition of drawing or commenting.
- Image visualisation and presentation - approaches for arranging, presenting and merging groups of photos or videos that go beyond the native device gallery app.
- Show how to recreate “classic” filters using the SDK, combine them in innovative ways, and also implement new filters not covered by the SDK
- Real time filtering on video feeds
- HDR Photography
- Imaging sharing and storing innovations - through social media, remote storage like DropBox or SkyDrive, NFC. Making it easy to "plug-in" to new services.
- Cost effective data transfer - including ideas like better compression, sharing only when using low cost carriers like WLAN
- Monetization aspects - making money through imaging apps, selling mobile photos, using advertising effectively for imaging apps. Embedding advertisements in images.
- Camera or image based games and augmented reality
- Printing from device
- How to use imaging in "real world contexts", including for medical purposes, warranty claims, construction.
- Locally relevant imaging solutions - for example using imaging solutions to identify and track local animal species or dangerous areas.

In addition, the Ideas Project has hundreds of app ideas related to imaging and photography - many of which might also inspire great wiki articles.

## Competition entries

All entries are listed below:

- (Winner) Memory-efficient Navigation in Very High Resolution Images on Windows Phone (yan_ )
- (Winner) HDR I - Implementing High Dynamic Range filters using Nokia Imaging SDK (galazzo )
- (Winner) Partial filter application and blending with Nokia Imaging SDK (to_pe )
- (Winner) Using Nokia Imaging SDK in a Windows Phone game (PedroQ )
- (Winner) Real-time camera effects on Windows Phone 7 and 8 (Tomas Slavicek )
- Optimizing Imaging SDK use for rapidly changing filter parameters (yan_ )
- Neural Network based Image Processing (galazzo )
- Detecting Faces on Windows Phone (summeli )
- How to use manual camera controls such as focus and white balance on Windows Phone 8 (HarMe )
- How to apply filters to specific image region using the Nokia Imaging SDK (RatishPhilip )
- Handling rapid imaging filter parameter changes using Rx (RatishPhilip )
- Filter Parameter Harmonization - Dynamic UI generation for filter parameters (RatishPhilip )
- FilterSquare: Using Nokia Imaging SDK to create an innovative Filter App for Windows Phone 8 (RatishPhilip )
- How to Use the Nokia Imaging SDK to create a "Photo Cookbook" for Windows Phone 8 Devices (matthewthepc )
- VoiceMaging for Windows Phone 8 (vinayppatil )
- Filter Testing app using the Imaging SDK (mehul_raje )
- Nokia Imaging SDK From Bottom To Top (GiancarloLelli )


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- Paper Photo App using Nokia Imaging SDK (Perseus9 )
- Combining imaging filters to create new real-time camera effects (navibyte )
- Collage using Nokia Imaging SDK (somnathbanik )
- How To Use Nokia Imaging SDK With Custom Filters And Image Processors (Engin Kırmacı )
- Using Nokia Imaging SDK Create Cartoon Photo (highcedar )

## Nokia Future /Capture - another great opportunity to be creative and win prizes

Nokia Future /Capture is a separate (complementary!) competition we're holding around Imaging. Dream up creative ideas for imaging-based apps or hacks that make the most of the new Nokia Lumia 1020 and you could win a trip to Lund, Sweden, to compete in our exclusive Hackathon. Not only will you be one of the very first to get access to the new phone, but you will also get to code alongside some of our own imaging experts who created the SDK and some of Nokia's own imaging apps. You could win another trip to a Nokia event, merchandising for your app and exposure on Nokia channels. There are only a few weeks to submit your ideas, so we recommend you check it out as soon as you can.

You can compete in either or both competitions, and articles from the Wiki competition can be used to help you in the hackathon. Nokia Future /Capture is a great opportunity to further increase the number of ways you can win with Nokia.

## The fine print

The main sponsor of the Wiki Contribution competition is Nokia Corporation, Finland ("Nokia"). The competition is a competition of skill. No purchase or admission fee is necessary to participate. By participating in the Wiki Contribution competition the participant indicates his/her/its acceptance to these rules and agrees to be bound by them as well as any rules and regulations of Nokia Developer and the Developer's Wiki, and agrees that all submissions are considered "User Content" as defined in the Nokia Developer terms. You acknowledge and agree that no form of cheating will be tolerated. Any persons found cheating, as determined in the sole and absolute discretion of the main sponsor, will immediately be disqualified from the contest. To the maximum extent permitted by applicable law, Nokia reserves the right at its sole discretion to amend, withdraw or revise these rules and the prizes at any time without notice and in such event the main sponsor shall not have any liability whatsoever. Prizes will only be awarded upon a potential winner's verification of eligibility and compliance with these competition terms, any other country specific legislation based on winner's domicile, and final approval by Nokia. All federal, state, local, and other taxes on prizes are the sole responsibility of the applicable winner. No winner will be permitted to (a) replace his/her designated prize with another prize or item, (b) transfer or assign his/her designated prize with another person, or (c) redeem his/her prize for cash.

This Wiki Contribution competition shall not constitute a commitment or create a joint venture, partnership, agency or other business relationship between the participants and Nokia. This Wiki Contribution competition does not grant to any participant whether expressly or by implication any ownership, rights or license to any intellectual property rights of Nokia. To the maximum extent permitted by law, Nokia shall not be liable for any damages arising out of the participant's participation to the Wiki Contribution competition. The laws of Finland shall be applicable to any disputes arising out of the Wiki Contribution competition. Unless otherwise provided for in applicable mandatory legislation, such disputes will be finally settled in the public court of Helsinki.

Nokia employees and contractors are eligible for this contest with the following limitations:

- You should use only the published tools and resources - "eat your own dog food"
- Submissions from the Nokia employees will be judged and prized separately from 3rd party developers. We've reserved 5 Monster headsets for the best Nokia entries.

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