RECO7611 Innovation and Procurement

360 degree image capture, editing
and sharing

360 Degree Image Capture

Step 1

There are three levels of technology available; professional 360 camera, consumer 360 camera, smartphone application. Each has particular setup requirements along with specific strengths and weaknesses.

Insta360 Pro

This professional level camera integrates 6 separate cameras with fish eye lenses to capture the environment in high resolution. It is a two part process; capturing the footage and then stitching it into one 360 degree "PhotoSphere".
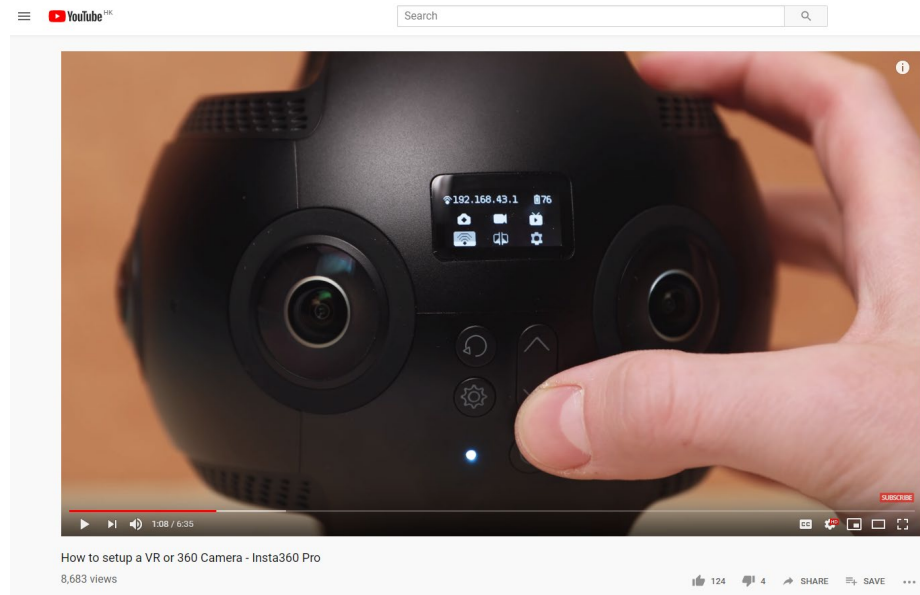
This excellent video tutorial on setting up and using the camera is 6:35 minutes long and only omits one small detail: you have to press and hold the power button for 10 seconds to turn the camera off. https://youtu.be/T_RKIitR2BI
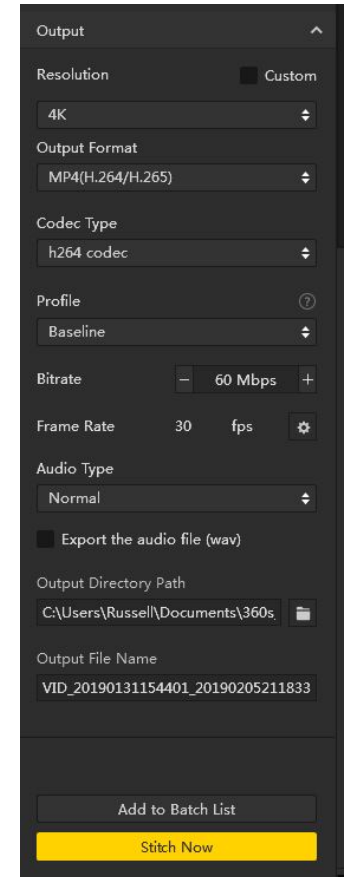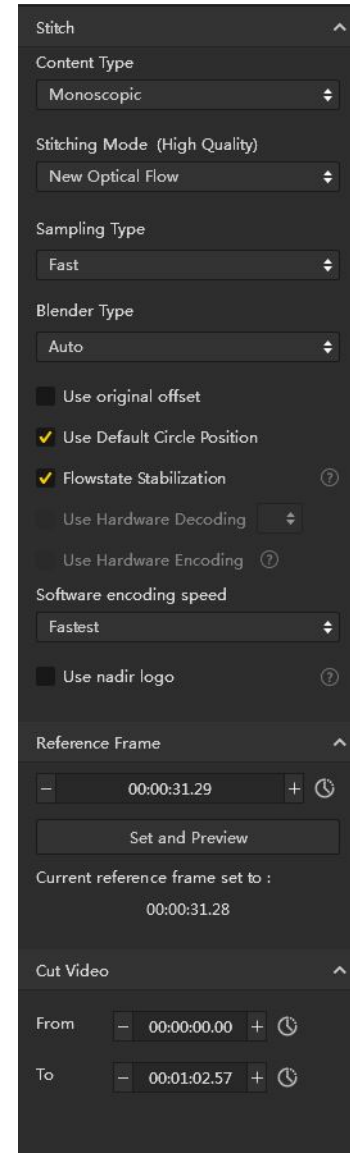
Insta360 Pro

The second stage is stitching the captured footage into one 360 degree photosphere.
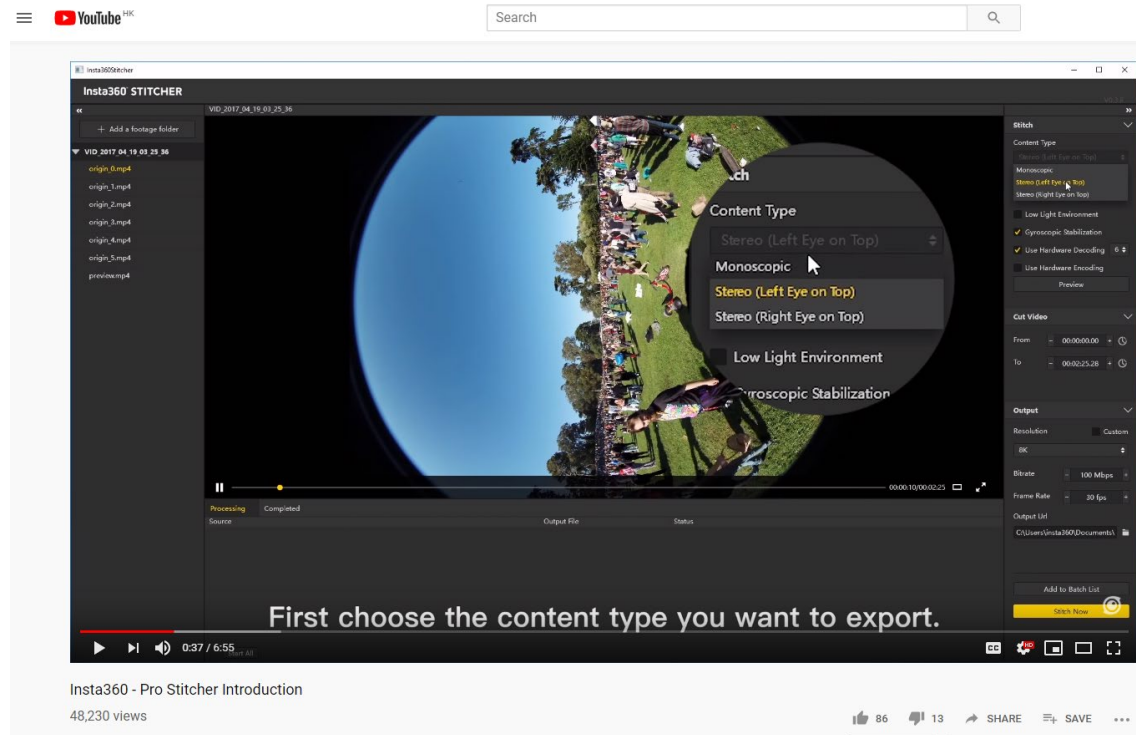
This video tutorial on stitching is 6:55 minutes long. At the 3:26 minute point it goes on to describe alternative stitching software, so watching past there is optional but may be of interest if you would like to extend your knowledge. https://youtu.be/_wjl6nFSU14

Insta360 Pro

These are the stitching settings I use for the Oculus Go.

Insta360 Pro

Further links for information and downloads:

For applications to control the camera and stitch the footage: "Insta360 Pro: Camera Control App" and "Insta360 Pro STITCHER" : Stitching software compatible with Pro/Pro 2:

https://www.insta360.com/download/insta360-pro

Specifications: https://www.insta360.com/product/insta360-pro/

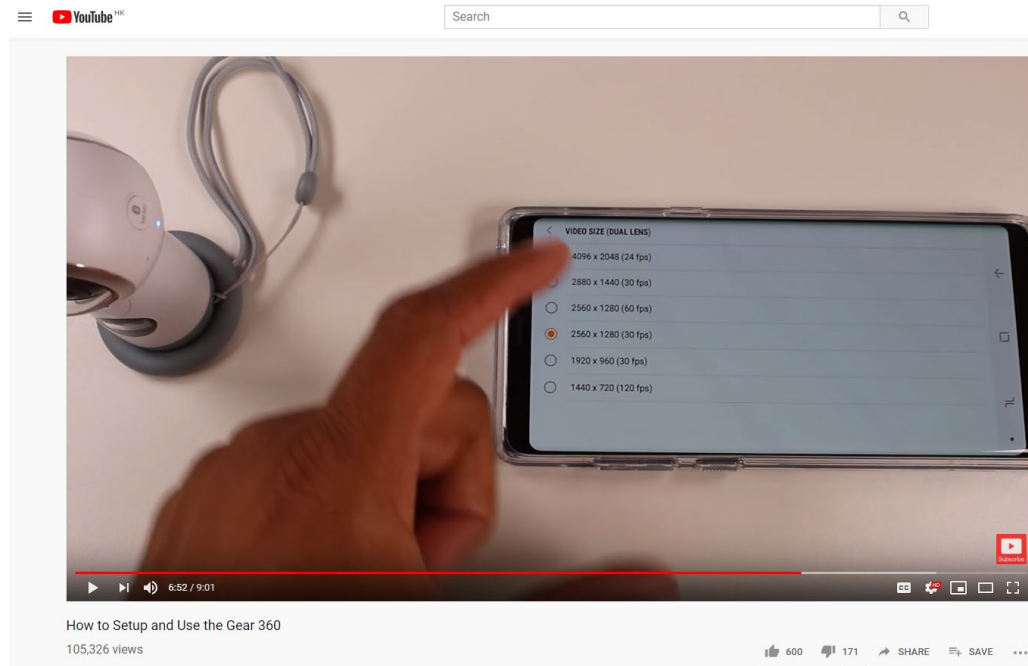User manual: https://onlinemanual.insta360.com/pro1/en-us/basic/prepare/1

Quick start guide:
https://www.insta360.com/support/supportdetail?name=pro&term_id=97

Samsung Gear360

This consumer level camera integrates 2 separate cameras with fish eye lenses to capture the environment in medium resolution.

In contrast to Samsung's own promotional video showing how to use the Gear360, here, which is less than 2:00 minutes long, this video goes into greater detail, starting from setup; but is a bit longer, at 9:01 minutes. I suggest you record at the highest quality.
https://youtu.be/NQhSN_S7GyE

Samsung Gear360

Further links for information and downloads:

Specifications: https://www.samsung.com/global/galaxy/gear-360/specs/

Gear360 app on the itunes store:
https://itunes.apple.com/au/app/samsung-gear-360/id1214791825?mt=8
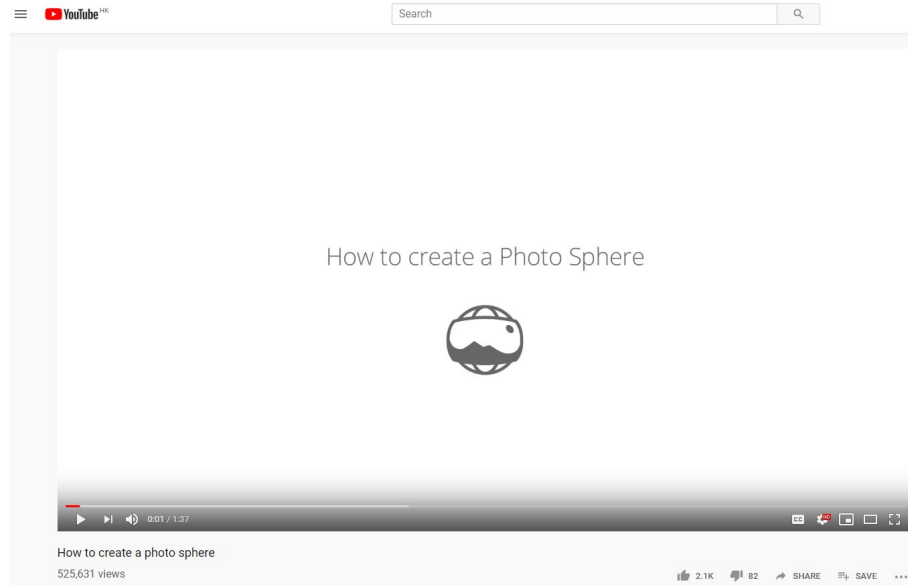
Gear 360 app on the Google Play store:
https://play.google.com/store/apps/details?id=com.samsung.android.gear360manager&hl=en_AU

Smartphones

For many new phones there are applications either embedded into the native camera apps or apps specifically designed to capture photospheres that you can download from iTunes or the Google Play stores.

Most photosphere apps operate like in the video above. The photosphere camera bundled with Google Streetview works on both iPhones and Android phones which is why we recommend it here. https://youtu.be/NPs3eIiWRaw

Smartphones: Google Streetview – Demo.

For iPhone you can download the app [here](). For Android you can download the app [here]().

Both applications work similarly:
1. Install the app from the appropriate store for your device.
2. Click the orange camera button at the bottom right.
3. Follow the on screen prompts.

(if your camera is disabled for any reason you might see black rectangles instead of images of your environment, enable it in the settings for the Street View app).

4. The "Done" button at the bottom will turn green when you have the full amount of shots, but you can hit done before capturing the full amount and it will stitch what it has.

5. On both types of devices the finished Photo Sphere will be saved locally (on an Android device it is in your My Files > Images > Panoramas folder). You can also choose to share privately (button to the bottom right) and email it to yourself.

360 Degree Image Editing

Step 2

Windows Photo Viewer

The inbuilt Photo viewer in Windows has editing functionality. Demo.
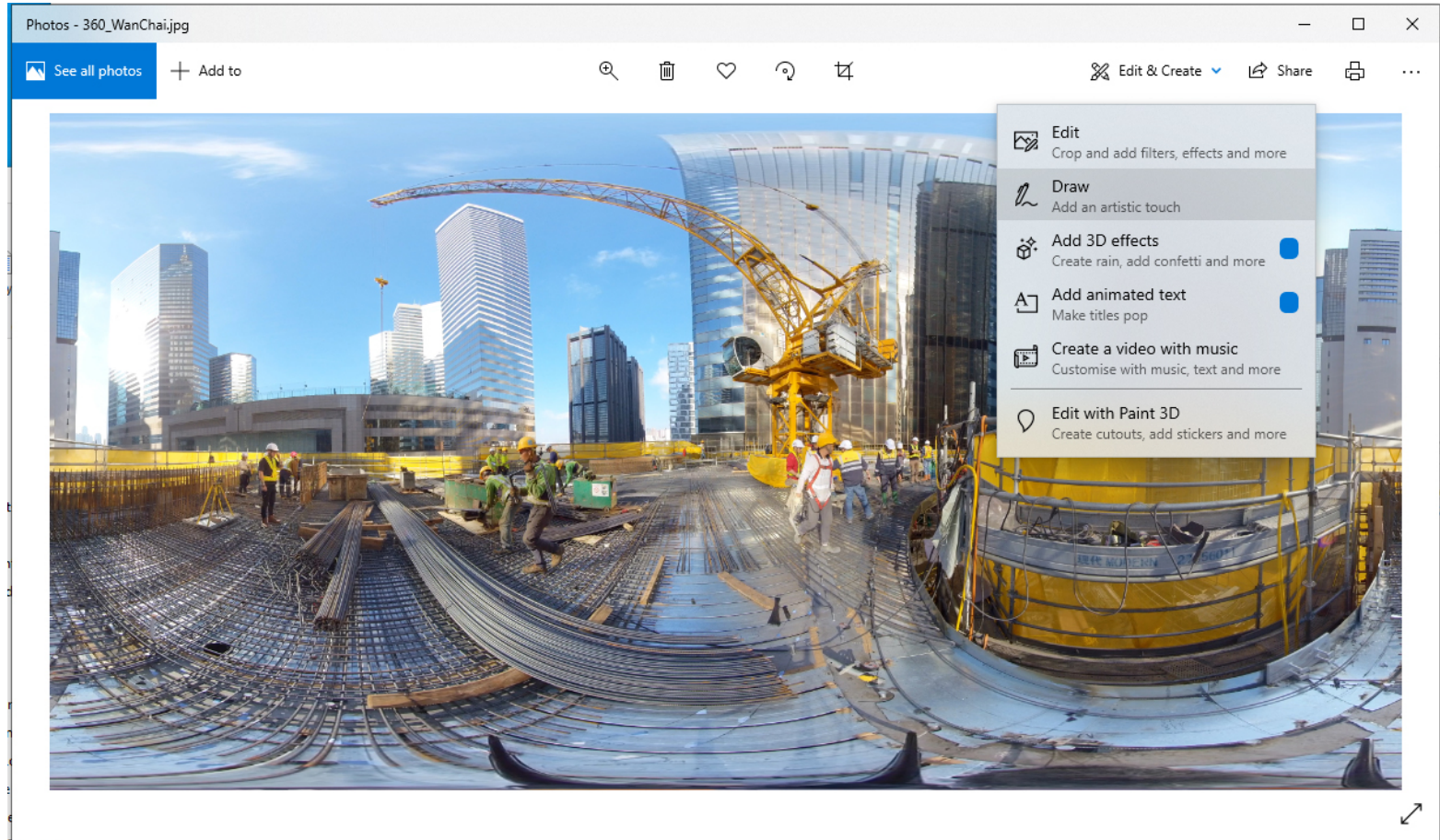
Photoshop

A professional image editing application like Adobe Photoshop will give you more control. You could download the 7 day free trial to do this assessment. Demo.

360 Degree Image Sharing

Step 3

Option 1: Oculus Go

The first option is to upload to a head mounted virtual reality display such as the Oculus Go. This is the latest generation virtual reality technology, is mobile and affords real impact! There are consumer and business versions.

To transfer pictures or videos from your computer to the Oculus Go follow the instructions [here](#).

Option 2: Pico G2

The second option is to upload to the Pico G2. This is a direct competitor to the Oculus Go. It is more expensive than the consumer version of the Oculus Go, but less expensive than the business version and is also licenced for business use.

Option 3: Kuula

The third option is to upload to the 360 photo sharing website www.Kuula.co