

Virtual City Windows

A project aiming at creating virtual windows between one city and another – or even more

Imagine being in front of the Colosseum in Rome and right to your left you can see the Tower Bridge in London.

Not just a picture, you're watching **LIVE** the Tower Bridge in London! You see the place and the people over there. And those people can watch you, because there's a similar big window at their location. You can greet, interact, talk to them. The window is real-life-size, so you watch those people as if they were right in front of you!

The idea by itself is rather easy and does not require much more than the “windows” (aka monitors) and some hardware to deal with them. No management, no extra features – at least in the first basic version. Extra functionalities could be borrowed from nowadays social media, such as image processing, tagging and so on. In this case some buttons could be added for interaction. Also, a save/print/share feature for current image could be added.

Audio is optional, and not explicitly needed in a first setup.

If desired, and available, different cities can be chosen.

We are:

Dario Greggio and Martin Zwigl – the former with a Gazillion years of experience in electronics and related software development, the latter with almost a gazillion years of experience in software application/enterprise development. Both still not dead and interested in building new “fancy shit”

You can reach us via the IT-Syndikat Makerspace in Innsbruck or directly via email to martin@zwigl.info

Purpose of this document:

Is to find out, who is willing to put effort in and set up on the “other” side.

Dario and I are located in [Tyrol – Austria](#), in the center of Europe, in the heart of the alps.

Technical stuff:

The window should be 3x3 meters large. We are considering using an array of 4x3 TVs or monitors circa 47” big. The requested resolution is around 4K pixels by 4K. Similarly, several webcams (possibly installed at the intersections of monitors) are needed to achieve a suitable resolution – and their quality should match the requirements, such as light, contrast etc.

A computer used as a simple video server. Streaming video to the internet will be enough to manage this hardware. Special VGA output and possibly a splitter will be needed, and a multi-video capture board will also be needed to manage all the cameras. Buttons or proximity/touch sensors can easily be added as USB peripherals.

Audio will be easily managed using microphones and audio amplifiers.

One special requirement is the roughness (robustness) of the installation, since it will have to be placed outdoor. E.g. IPxx to withstand the rain and/or the strong heat, and also being secured against vandalism.

A robust frame capable of sustaining the full structure is required.

The software will be rather straightforward, since it will just need to transmit and receive video frames in a 1:1 configuration. An internet connection fast enough will be needed, but nothing too fancy.

Since we are VERY MUCH into recycling and engaged in the local “Repair Cafés”, we also want to emphasize our effort to use USED parts for the set-up!

Further procedure and ongoing:

- We will define more precise specs in regard to monitors, cameras and computer hardware
- We are also interested on your thoughts about such an endeavour.
- We will contact our city council to be able to establish the aforesaid installation (Virtual Window) within the city
- When we have the Ok from the city council start with the setup of the installation

Love, peace and happiness from this side of the blue planet.

Dario Greggio, Martin Zwigl