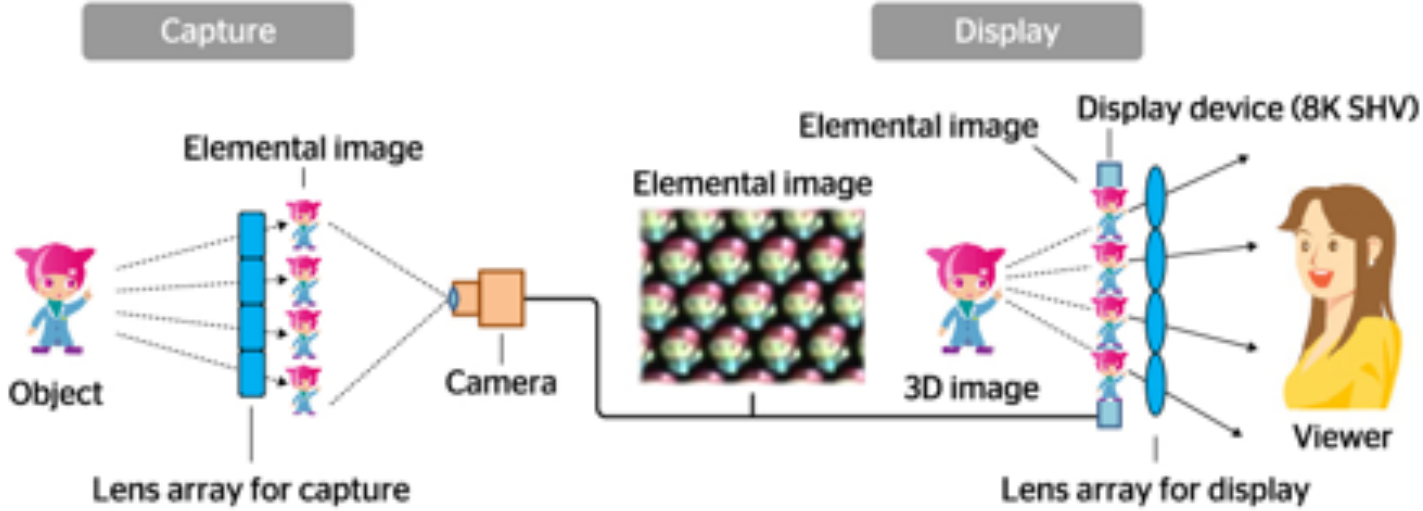
Demonstrations in

Workshop on
Coding Technologies for
Immersive Audio/Visual Experiences

Integral 3D TV

Science & Technology Research Laboratories

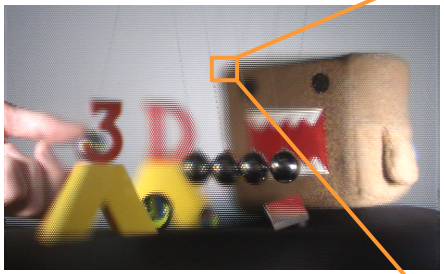
Basic configuration



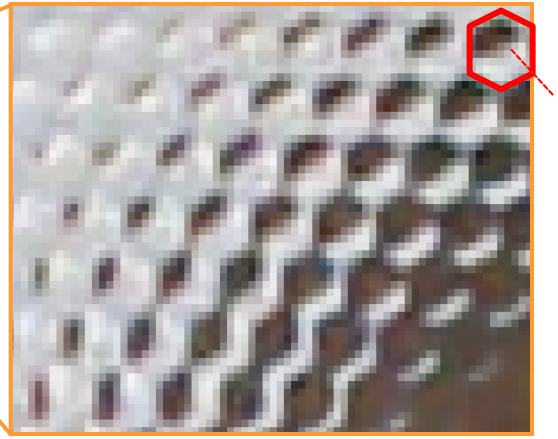
Features Real-time capture and display of moving 3D images
Real objects (not computer graphics) are captured and displayed
Full-parallax images

Problem Integral 3D system requires huge number of pixels

Elemental image



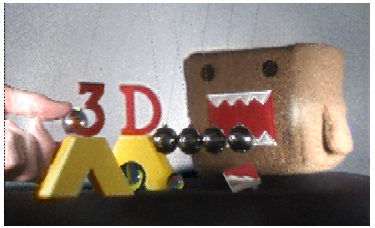
Elemental images



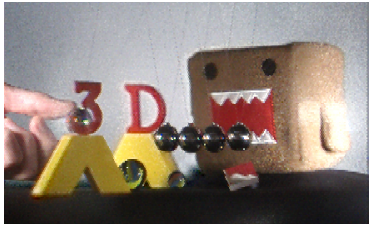
One elemental image

Sampling of center pixel in each elemental image

Sampling of left pixel in each elemental image



Center view



Right view

creating the living network. *together*

Realtime interactive demo with 3DoF+ content

Julien Fleureau, Renaud Doré

MPEG127

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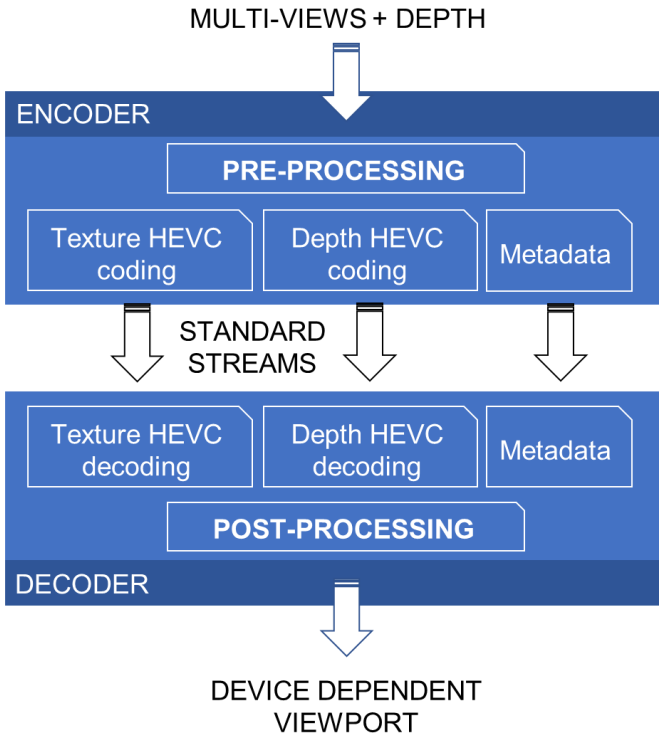
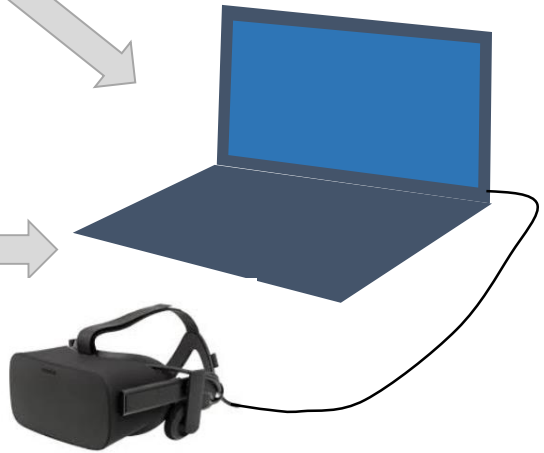
A demo compliant with MIV (*) specification



Pre-encoded and recorded

GTX1080 GPU based Realtime decoder



(*) Metadata for Immersive Video

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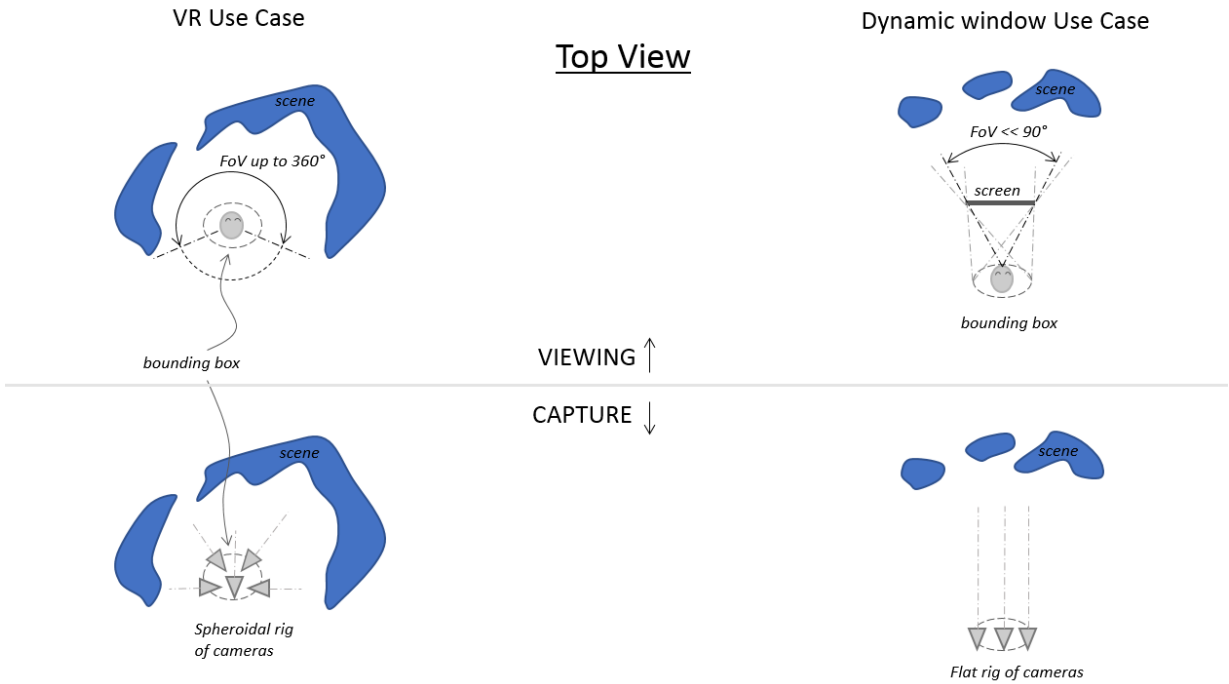
The demo renders viewport on HMD or screen



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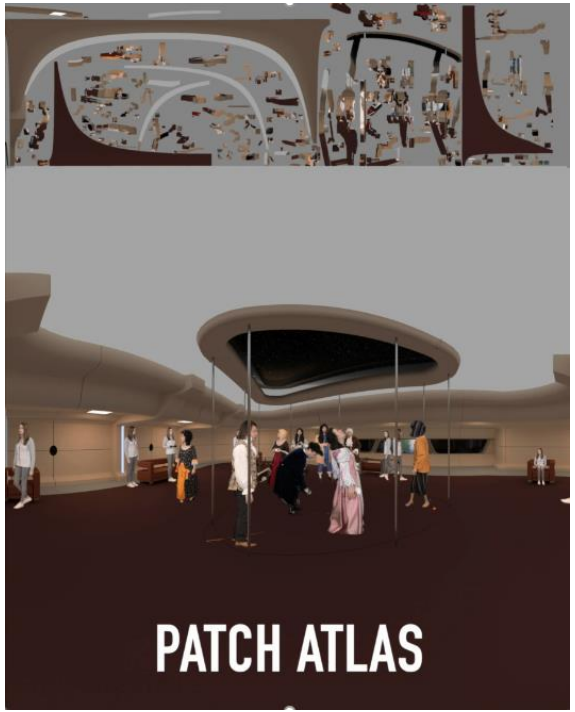
Volumetric Technique in a nutshell

- Keyword= patch atlas
- Obtained through non normative Scene decomposition
- A switch in the demo enables the patch atlas visualisation



+ same
For Depth

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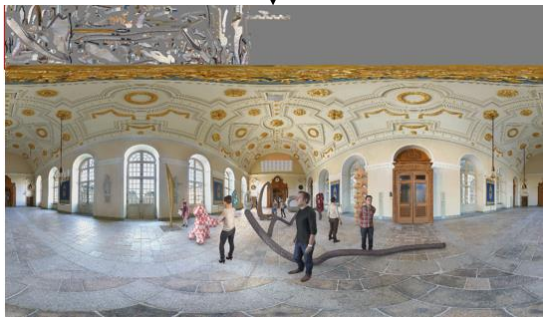
10 seconds CTC MPEG Contents shown on screen

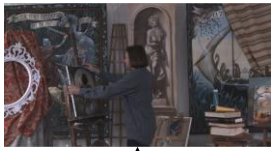
synthetic

360°x180°



Synthetic / natural

natural



Small FoV

natural

+ extended contents shown on HMD

Non MPEG

Synthetic / natural

60 seconds

360°x180°

360°x180°

Synthetic

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Tsinghua Single-focused Plenoptic Camera

Tsinghua Single-focused Plenoptic Camera is designed by Xin Jin's lab.

DEMONSTRATION OF A SIMPLE FREE-VIEWPOINT TELEVISION SYSTEM

Marek Domański, Adrian Dziembowski, Tomasz Grajek, Adam Grzelka, Krzysztof Klimaszewski, Dawid Mieloch, Robert Ratajczak, Olgierd Stankiewicz, Jakub Siast, Jakub Stankowski, Krzysztof Wegner

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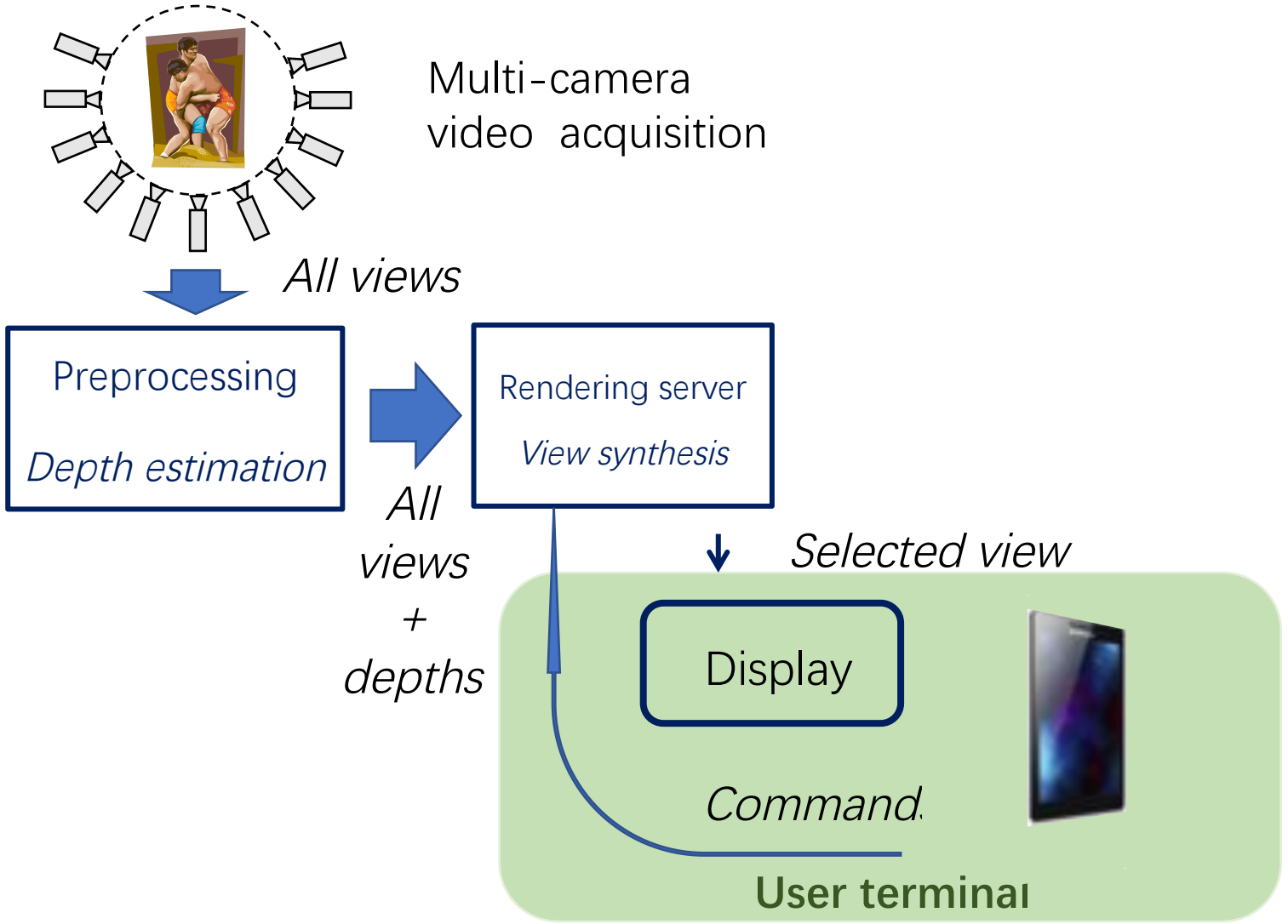
Poznań, Poland

View synthesis in rendering server (edge server)



Rendering server - demo

Rendering server:

PC

Network:

User Terminal:

Mobile device:
wifi +
browser

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Enjoy in Demos!