Deliverable

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D4.1 - First example of content

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Statement of originality:

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Executive Summary

The deliverable describes the production and post-production process for Pilot 1, with information on the material created and a roadmap for the subsequent pilots.

This document shows the creation process of the First Pilot: pre-production (concepts, storyboards, script, casting), The motion capture process and the shooting in Geneva, and the post-production process (editing, conforming, 3D scenario, 3D elements, compositing works, integration, color grading, etc).

The document includes the contents uploaded to Zenodo, orderly and classified. These contents correspond to the content, necessary for the demos and final pilot.

Different charts and tables of content include a detailed description, images and links to the source where they are uploaded. All this information is required by the rest of the consortium to work in their different tasks for developing the first pilot and its technology.

The deliverable also includes the content for promotional actions: videos, logos and other files.

In this deliverable it is explained how the content has been used for the pilots and experiments. All this information is perfectly developed and explained in the Deliverable D4.2.

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LIST OF ACRONYMS

Acronym	Description
VRT	VRTogether
GLTF	GL Transmission Format
Stero	Stereoscopic
Mono	Monoscopic

1. INTRODUCTION

1.1. Purpose of this document

This deliverable shows the contents uploaded to Zenodo in relation to the first pilot of the VR-Together project. The purpose of this document is to present in a clear and orderly way:

1. The contents created in its different formats
2. The description of each content
3. The contents generated for the dissemination of the project
4. The description of each content

The following objectives are intended to be achieved:

- Easy access
- Clarity in the descriptions
- Generation of a useful guide
- Quick identification of the type of content that may be needed by each partner

1.2. Scope of this document

This document has been generated for internal use among the partners, in such a way that they can access the content. These contents have been created for the correct technological development and for the adequate diffusion of the works carried out under the Grant Agreement.

The scope of this document is public, with access allowed to all those who require it outside the consortium. Another option for public access is the use of these materials in festivals and events that require it, the agreement of the consortium members is canceled.

1.3. Status of this document

- Complete in terms of content, description and access links.
- Complete in terms of summary content tables.

1.4. Relation with other VR-Together activities

This document illustrates the content delivery for the first pilot and the development of the technology. The content here defined and ordered in different formats, users and characteristics, is the one used to make the demos that illustrate the first pilot. This content is the one that has been used to show the technological development.

Among the activities not related to the technological development, it's necessary to point the following ones:

1. Roadmap of summits, fairs as IBC, Vr Days, etc.
2. Roadmap of Festival with strong presence of VR/AR Projects as Sundance, South by Southwest, Raindance London, Venice Film Festival.

1.5. Deliverable content

The present deliverable includes a summarized view of the elaboration of the first pilot. It shows and illustrates each part of the process, from the conception of the idea to the expected release dates, including as well a first vision and expectations about what is coming for the following pilots. The post-production process is also included, step by step, illustrating the most important points.

The three pilots are connected between them, telling and transmitting a story about a murder. The story developed focuses on the murder of Ms. Armova, a wealthy British lady in unknown circumstances. Two persons were present at the time of the murder: Ryan Zeller and Christine Gérard. Each suspect has his version of the crime and what happened that night, but it will be up to the users to draw conclusions. The next chapters of this story are expected to come out in the dates shown in the following figure.

To summarize, the utility of this deliverable is to have a complete and global vision of the work done for the first pilot and to understand how this work is planned and how it has led us to modify and improve the first ideas for the Second Pilot. This deliverable sums up and identifies all the contents and their access links. It is also important to point that the document collects the utilities of each generated file, for an efficient use of it.

Figure 1. Proposed schedule for the VR-Together pilots

2. CONTENT CREATION: PILOT 1

2.1. Introduction

In the first pilot of the VR-Together project, two users are located in a 70's look-a-like police interrogation room, behind a two-way mirror, where they can observe the place where interrogations are going to take place in. Even though the participants are located in the same room, they are separated from each other, because each one will enjoy a different part of a police interrogation. Both users are able to see each other in the room created specifically for this.

The users, represented as inspectors of the case, are witnesses of the interrogations made to the main suspects of a murder. Each user will be able to listen to a witness and, subsequently, interact with each other to deduce who is guilty of the murder. In this way the sense of togetherness is fostered, since users can see each other not only during the interrogation, but also after the interrogation is finished. The interaction between them is necessary to reach a conclusion.

Both users will have to pay attention to every move the witnesses are doing, what they say and how they act, in order to make a decision about who they think is guilty of the murder of Ms. Armova. The experience presented by the project VR-Together allows to experience the sensation of togetherness in a virtual reality environment.

Our aim and goal is getting the users to experience a togetherness feeling, seeing each other and knowing that the other user is experiencing a slightly different adventure, since each one will have to pay attention to a different witness. Both of them won't hear the same story of the murder, and after hearing what the witnesses have to say, they will have to agree on what they heard and saw, translating the experience not only in the artificial environment created, but also afterwards, making the most of the experience. As the name of the project itself, we want to transmit a feeling of togetherness before and after of the experience lived by the users.

This is the first one of three chapters. The story behind the three episodes covers the investigation of the murder of Ms. Armova and all the details around it. For this purpose, 2 scripts were written, corresponding to each one of the users, and which we collect in. The script are located in the ANNEX II of this document. Both of the scripts written feature the following characters:

- SARGE: A police inspector, aged, highly professional and strict rigor. His training and experience in murder cases has made him an excellent profiler. Know in a glance the weaknesses of the suspects and know how to respond to the questions to make mistakes and reach the truth.

- YELENA ARMOVA: The Victim. Little do we know about the victim. A woman at the peak of her professional career with great ambitions and recognized success.
- CHRISTINE GÉRARD: Assistant of the victim. Young and attractive woman. Ambitious and somewhat deceitful. Strictly meticulous. Her arrogance and lack of respect for what happened make her one of the suspects in the point of view of our inspector.

- RYAN ZELLER: An Attractive and womanizer man of bad reputation. A life enjoyer and lover of the victim. His drunken or drugged state and his vital contempt make him look in the eye of our inspector

The story reflects a passionate crime, where the two suspects lie. This one focuses on Sarge, the policeman in charge of the murderer of Ms. Armova, who is interrogating two suspects and witness of the crime: Zeller, and old friend of Ms. Armova, and Christine, Ms.Armova's ex-worker. In addition to attending the full interrogation, users have access to content recorded by the security cameras of the apartment of Yelena Armova.
One user will hear the testimony of Zeller, the first witness. The other one will observe the interrogation of Christine. One of the users will witness the poisoning of one of the suspects.

2.2. Work planning

Check out the part I of the Annex for a higher resolution version of the working plan.

	FEB.	MAR.	APRIL	MAY	JUNE	JULY	SEPT.	OCT.
PRELIMINARY CONTENT DEVELOPMENT - PRE-PRODUCTION								
Definition of the production tasks of the first pilot (Entropy and Artanim)	From the 26th	To the 10th						
Research of production companies for casting, sound, camera equipment	From the 26th	To the 10th						
Definition and guidelines of content. Start from the work from previous months. Concretion		From the 12th	To the 2nd					
Elaboration of Script and review		From the 26th	To the 2nd					
Script review and casting selection		From the 26th	To the 2nd					
Shooting planing			The 2nd and 3rd					
Script reading and rehearsal								
PRODUCTION								
Shooting			From the 4th to the 7th					
POST-PRODUTION								
Material preparation and removal from discs.			From the 9th to the 20th					
Scripts updating after shooting. Compilation of camera parts, filming data, etc.			From the 9th to the 20th					
Editing and conforming			From the 9th to the 20th					
Shotgun of the project: Post production planning			From the 9th to the 20th					
Chroma cleaning, Unity scenario creation			From the 20th		To the 20th			
CGI of the elements, masks, lighting and integration			From the 20th		To the 7th			
Programming of the unity scenario			From the 20th		To the 20th			
Content delivery								
Showcase video 1: script and creation of a video to show the work . Graphism								
Showcase video 2 for advisory board: script and technical interviews								
Showcase video 1 delivery						The 28th		
Content for IBC demo								
Zenodo upload								
Content for VR Days Demo: programming and 3D works								
Programming and 3D settings								
Unity scenario last settings								
Subtitles								
Roadmap of Festivals calendar starting point: Sundance and South by Southwest								

2.3. Summary of the planning and development over time

After several meetings between the creative partners of the project (Entropy Studio and Future Lighthouse) and numerous and productive brainstormings, it was proposed the idea of the pilots with a plot line related to a police theme, such as a murders, an ongoing police investigation or the course of an interrogation, among other ideas. From here, everything was determined to elaborate the plot for the first pilot.

The main objective of the pilot was not only to show a technological expansion, but to try to capture the attention of the consumer, making them a participant in the show thanks to an elaborated plot and interaction between players, helping sociological phenomena such as word of mouth or electronic word of mouth to play the role of communicators, attracting the interest of general public and media.

At the beginning of November, a second document with ideas developed on this pilot was delivered. Specifically, the possibility was raised that the first pilot encompassed a specific topic. These three ideas were presented to the other partners to finally choose one and develop the pilot from this chosen idea. During the second physical meeting in Madrid (November 2017) it was decided that the idea of the pilot that was going to be developed would be the second one (interrogatory room). From this idea, the artistic partners (Entropy Studio and Future Lighthouse) developed a storyboard of the general concept of the pilot, as it can be seen in the following figure.

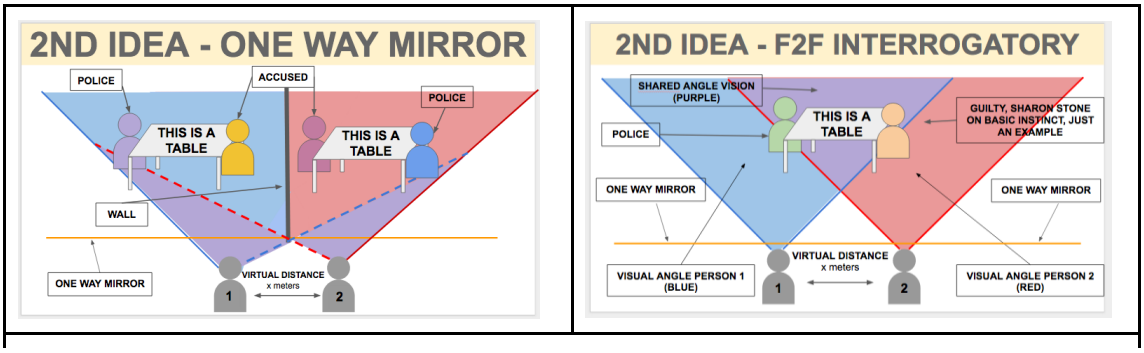


Figure 2. Drafts about the first pilot

After some weeks preparing and developing the storyboard and a more detailed script, it was questioned in a couple of meetings the whole concept of the pilot and the order in which they should be recorded and presented to the public. It wasn't until the first General Assembly in Amsterdam (January 15th to January 17th) to definitely decide that the proposed order was the best to develop. The next days and weeks after the general assembly were used to keep working in the script and storyboard of the first pilot.

During the month of February Entropy Studio began to think about the production necessary for the filming of the first pilot from numerous meetings between Entropy Studio, Future

Lighthouse, i2CAT and Artanim, but it wasn't until March when we began to define responsibilities, contact different companies, etc.
It was decided that the filming of the first pilot would be located in Geneva (Switzerland) during the 5th and 6th of April.

From that point on, Entropy Studio started the pre-production of the First Pilot, doing the following tasks:

- Development of a script
- Contact with casting houses and selection process
- Casting for selection of actors in Madrid
- Search and Selection of professionals for sound, camera, lighting and chroma.
- First script readings and script modification
- Rehearsals with actors in Madrid
- Pre-production of the shooting: required documentation (camera parts, ATA documents, recruitment, etc.), travel organization (flights, hotels, etc)

After the shooting, Entropy Studio began to work with the material that had been shot to give it a visual form, looking for references and adapting the scene to find an atmosphere that would fit the personality of the virtual experience. The post-production works were scheduled to take place during the months of April, May and June.

2.4. Pilot 1 plot

2.4.1. User 1 plot

The user 1 is sitting on the dark side of an interrogation room, looking at a one-way mirror. Through the mirror they can see the lighted side of the room, a spartan concrete box featuring just a bare table and two simple chairs.

The user 1 is sitting on the dark side of an interrogation room, looking at a one-way mirror. Through the mirror they can see the lighted side of the room, a spartan concrete box featuring just a bare table and two simple chairs.
In the user's 1 side of the room, resting on a table in front of the user 1 and a bit to their side, a screen is playing a recording on loop with different pictures of Zeller and Christine arriving at Armova's apartment (the woman who was killed).

Then Sarge enters the interrogation room, a middle-aged British cop. He closes the door, drops a heavy folder on the table, approaches the mirror and stares at the user 1, breaking the fourth wall. After a short monologue explaining the situation to the user 1, Zeller (the first witness) enters the room. This is the point where the interrogation starts.

When the interrogation process finishes, both user 1 and 2 are supposed to communicate between them to make a conclusion of what they both heard and saw.

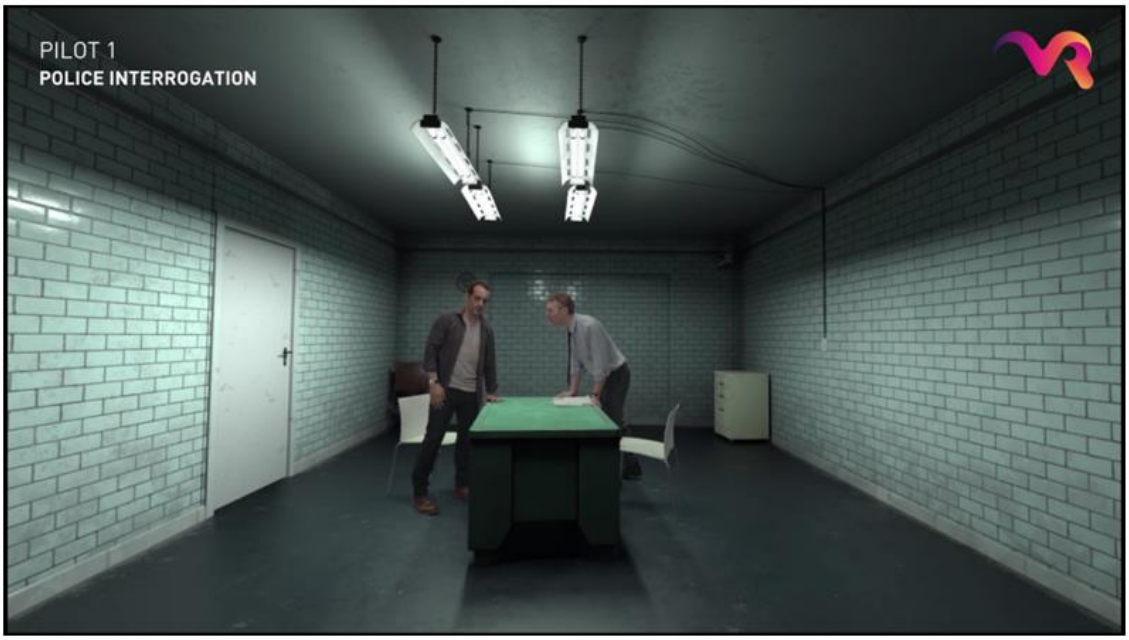


Figure 3. User 1 scene

2.4.2. User 2 plot

The user 2 is sitting on the dark side of an interrogation room, looking at a one-way mirror. Through the mirror they can see the lighted side of the room, a spartan concrete box featuring just a bare table and two simple chairs.

In the user's 2 side there's an open dossier, resting on the table where it can be read information about the case. In the lighted side of the room, Sarge is reading a dossier and talking to the user 2. That's the moment when Christine enters the room and the interrogation process begin.

After Christine tells her truth, both user 1 and 2 are supposed to communicate between them to make a conclusion of what they both heard and saw.

Figure 4. User 2 scene

2.5. Casting

On March 20th the casting process began. We were looking for three actors to play the different roles of the play: 2 suspects and one police officer. A scene from **Law Abiding Citizen** was selected for the candidates to interpret in order to be chosen. One of the requirements of the casting process was to interpret the different roles with a British accent. Finally, the candidates selected were Jonathan David Mellor (as the police officer), and Almudena Calvo and Steve Galache as the suspects.

	Jonathan David Mellor	Police Officer
	Steve Galache	Suspect #1
	Almudena Calvo	Suspect #2

Table 1. Actors selected and their role

2.6. Shooting and stereoscopic billboards

The technical specifications about the tools used to shoot the first pilot in Genova are summarized in the following table.

Optics used	Canon 8-15mm, 12mm approx
Obturación	1/60, f5, ISO800
Separation between optics	8cm, approx

Table 2. Technical details about the camera used

The following table includes some pictures taken in the shooting of the first pilot. The part III of the Annex includes calls for filming and its planning.

Figure 5. Pictures from the shooting

2.6.1. Motion Capture process

The second day of shooting was totally dedicated to the motion capture process. Motion capture is "the process of recording a live motion event and translating it into usable mathematical terms by tracking a number of key points in space over time and combining them to obtain a single three-dimensional (3D) representation of the performance"[1] (Menache, 2000).

Artanim collaborated with Entropy Studio on the shooting of the first pilot of the VR-Together project. The actors were 3D scanned with a photogrammetric scanner consisting of 96 cameras, to obtain the 3D surface of their body. They were wearing the same clothes as in the video shooting scene.
Artanim was the responsible for the motion capture of the actors. The capture process was realized with Vicon Shogun, in which each actor had to wear 59 retroreflective markers for best results. For facial capture, Artanim developed a recording software using iPhone X and ARKit synchronized with Shogun and a tool to convert the recorded data into FBX format for further editing and corrections.

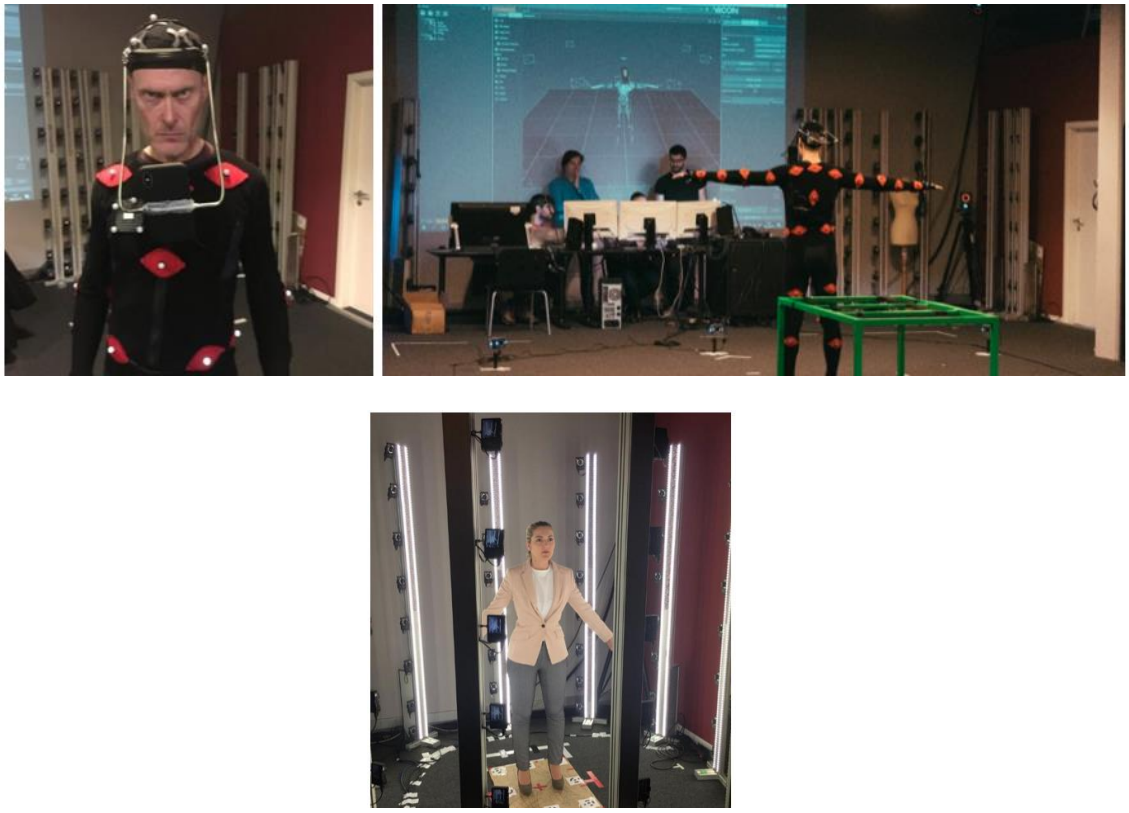


Figure 6. MOCAP shooting process.

[1] Menache, A. (2000). Understanding motion capture for computer animation and video games. Morgan kaufmann.

2.6.2. Unity Scenario Creation and Development

2.6.2.1. Virtual Reality Environment Process

VR-Together: Police Interrogation, takes place in a Unity scenario.

The VR scenario has 4 rooms: 2 rooms where the users will be watching themselves in real time with their own stories, and 2 rooms where all the interrogation process will take part. All of the elements in the rooms were made in photorealistic 3D, with the use of optimized geometry, which was the creation of the Unity scenario. The development of the virtual reality environment is illustrated in the following paragraphs.

Firstly, we shot all of the scenes over green chroma. The nearly 4.000 frames were cleaned, facing problems of noise reduction, masking, lighting, lens distortion and integration and stereo. The users and interrogatory rooms were the only 3D assets to be made. Those were necessary for the real-time 3D representation. Whatsmore, 360 panoramas were rendered from the user POV and used as plates to create final videos (stereo/mono).

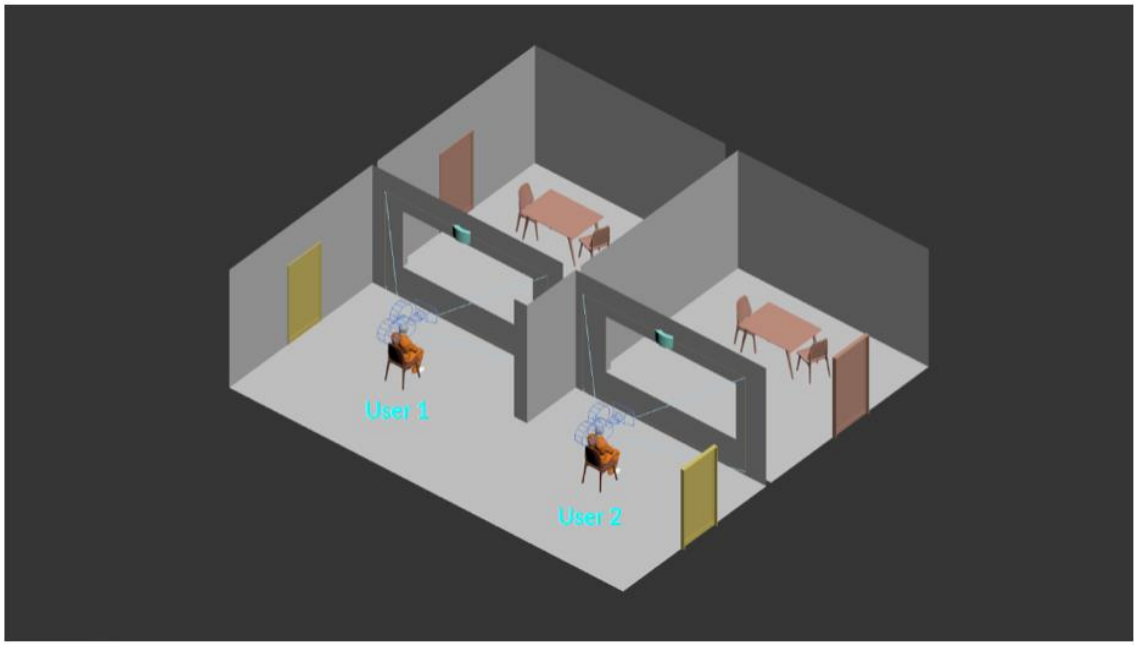


Figure 7. Overall environment

Figure 7 illustrates the lighting process recreation. Some lights were added in real-time (using Unity) to the PointCloud representation of the users in order to integrate them into the 3D scene. We added a strong and direct light in the interrogation room and some dimmed lights in the dark room where the users are located to recreate the atmosphere that we were looking for.

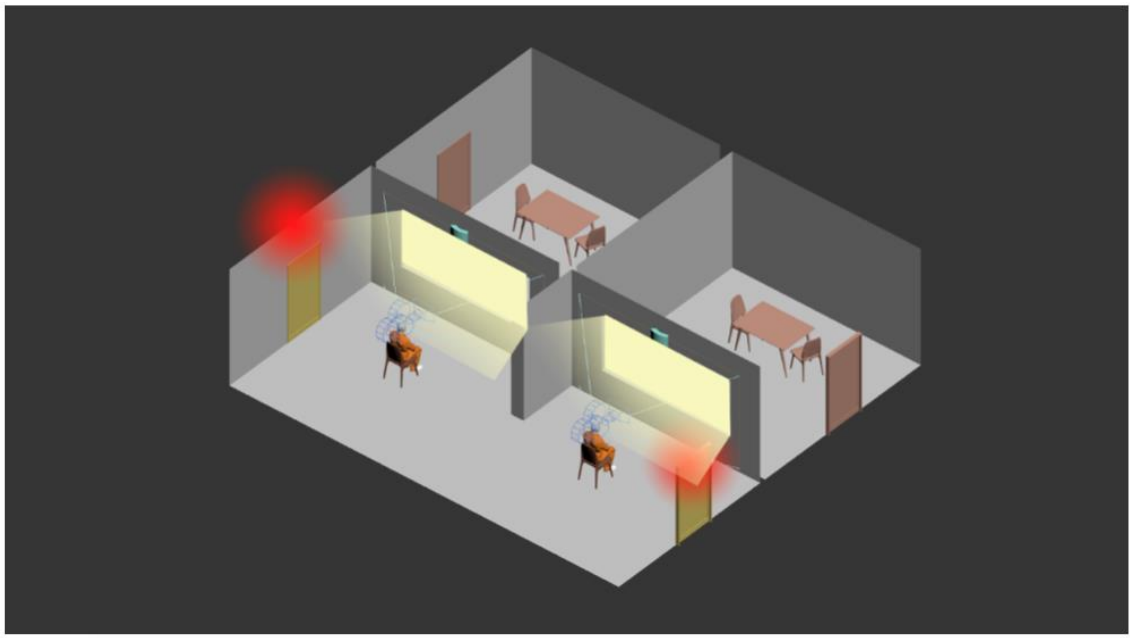


Figure 8. Lighting process recreation

Videos will be displayed on planes, replacing actors and furniture (like the table and both of the chairs) as we can see in the following figure. Users are displayed as Point Clouds.

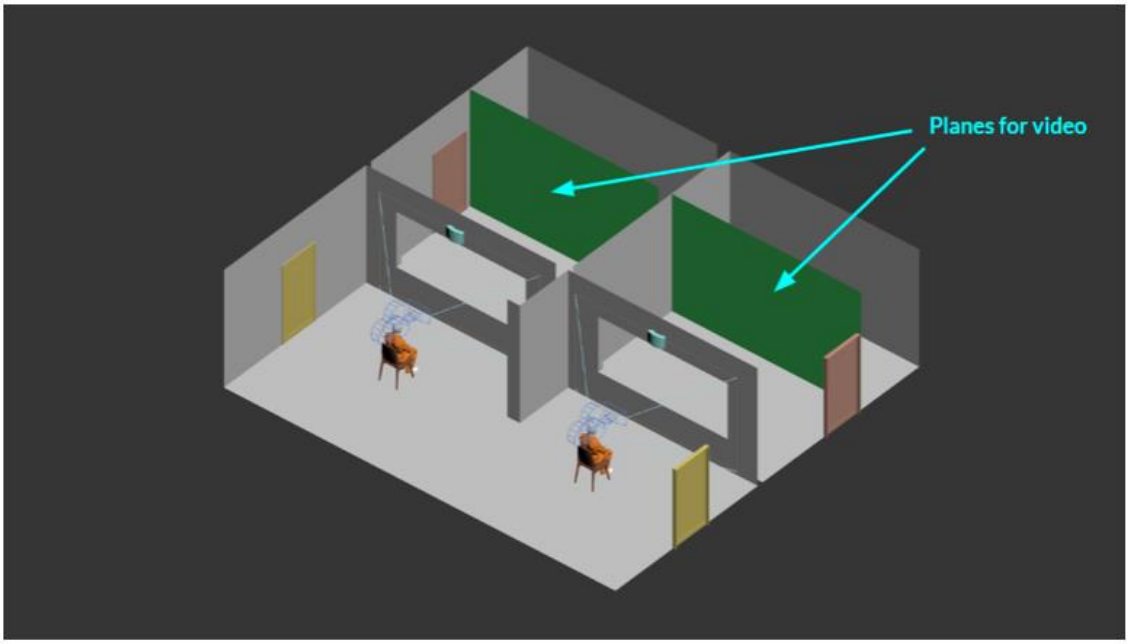


Figure 9. Representation of the scene

Ambient sound was prepared to be spatial, (e.g. the sound of the door when it opens, the sound of actors moving the chairs, etc.) The sound that comes out from the interrogatory room is played from the speakers that are located in the front, as seen in the following figure. Audio from the other player would be played from player position.

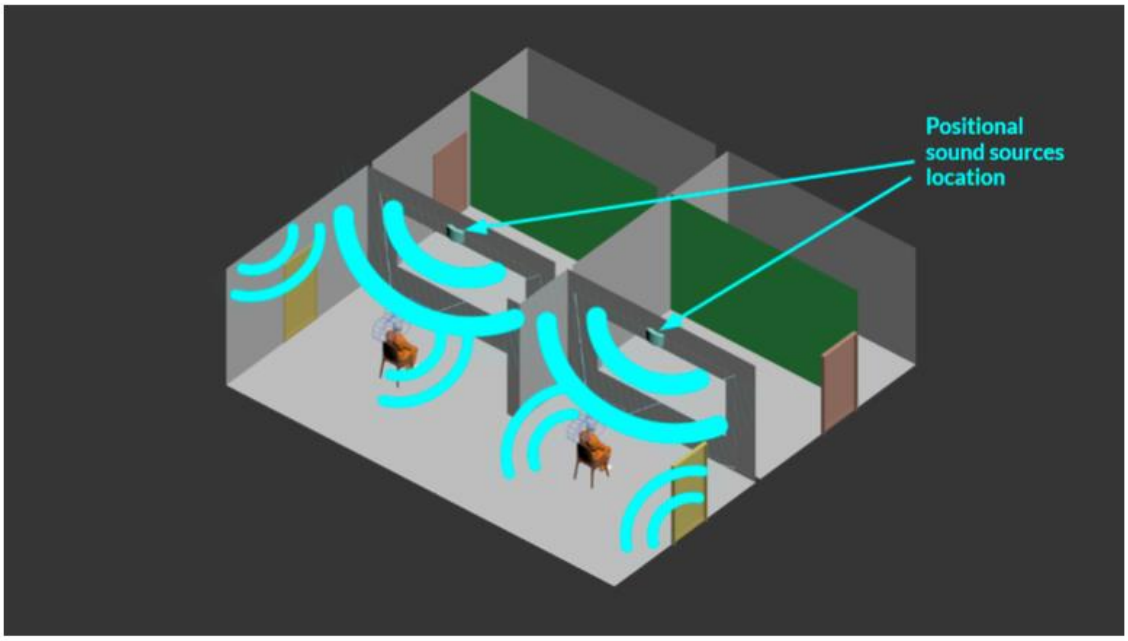


Figure 10. Sound space

2.6.2.2. Post-production process

The following paragraphs summarize the post-production process of the first pilot. Nuke was the software used in terms of compositing. The first process consisted in the processing of raw material, its relocation and first adjustments of the shooting material.

The second step was the noise reduction process. In order to get an optical chroma key, it was necessary the removal of the noise from the image. This was the way to avoid the "defect" of the cameras. The idea was to equalize the absence of noise in computer generated images with the ones that came from the shooting process. An specific plugin was used for this process. The following figure shows the process of noise reduction.

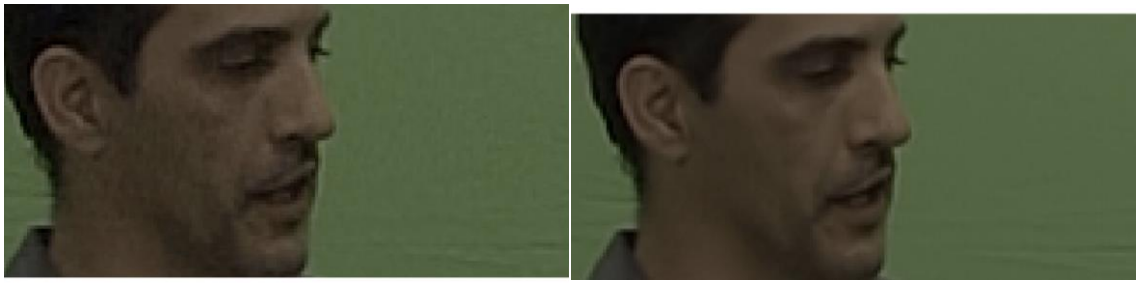


Figure 11. Before and after the noise reduction process

For the masks, it was needed to adjust more than 40,000 frames. Adjusting the frames was a manual work and required patience and time. To do so, it was necessary to mask each part of the characters and all of the different elements from the scenario. The treatment done for the hair also needed an specific process. The following figure illustrates this process.

Figure 12. Masking process

The process for the colour needed the green to be taken out from the background. This process, however, generates a contamination in the rest of objects and people. That's why it was needed to eliminate and calibrate the images to get the best possible integration. The following figure shows this process.

Figure 13. Colour process

To calibrate vision between eyes, it was necessary to do some small adjustments. To do this, it was used an image deformer and a grid placed on the floor as a guide. The following figure illustrates this paragraph.

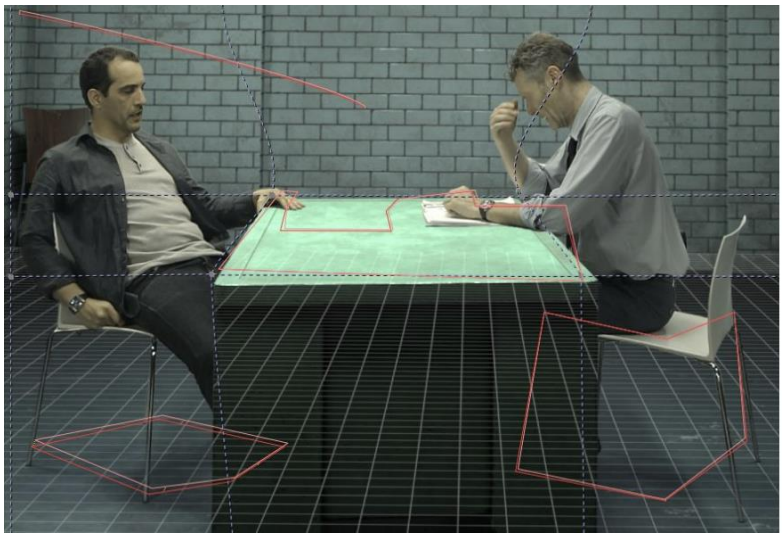


Figure 14. Stereo adjustment process

2.6.3. Modifications and implementations (First pilot)

After the delivery of the post-production work and integration of the Unity scenario, some modifications were considered necessary before showing the pilot to users:

- Time adjustment: Both users had a time lag. User 1 was 5 minutes and 48 seconds and 2 was 6 minutes and 55 seconds. This was a problem because one user was going to have less content than the other, and the piece was supposed to last almost the same time. Solving this wasn't a big deal, since during the shooting process, Entropy Studio shot extra content just in case it was needed lately: images from a hypothetical security camera that was supposed to catch both of the suspects entering into the crime scene. Because of this, it was decided to insert in both users some screen that collected all the security camera images. By doing this, the time could be adjusted and the problem would be solved.
- Development of billboards for better integration and orchestration that was requested in the Integration Meeting (March 2018). The previous billboards were tested with a resolution of 900x1700 px, and it was asked to develop a higher resolution billboards.
- There were some problems with the mask and the integration process. They were solved with extra composition work by Entropy Studio.
- On the audio side it was created an ambisonic audio track.
- Since the British accent used is so pure, and to facilitate understanding of dialogue and story, subtitles were added.
- To also facilitate the user situation about the story told, it was needed to have some introduction where it can be explained why are the users there, what they have to do and what they are going to see. It was also needed to use graphism or even some questions to the end of the piece, as it was discussed in the last General Assembly (Madrid). To summarize and after the VR Days, it was decided the following order of events:
    1. Introduction with the VR-Together project logo.
    2. Unity scenario with the present users for them to see each other and identify between them. Since the observation part is the most shocking, some extra time is needed for both of the users in order to assimilate the situation.
    3. Then, a voice-over is needed that explains the situation: what are they going to see and watch. This will be used as a settlement.
    4. To deliver a 100% involvement situation, the users will see some crime scenarios and hear different sounds (i.e., ambulance and police car typical sounds) to get into the scene environment.
    5. The experience will begin.
    6. When the experience is finished, the users will be asked some questions about the situation and the experience that they just lived. These questions will be, probably, some graphism in order to facilitate the situation. This situation will also be used for the users to interact between each other.

2.7. Content delivered: Contents uploaded to Zenodo. Data Sets

The following table is a resume of contents including the data sets of the material developed and uploaded to Zenodo. It is an organized summary of what is specified below. It contains a brief description, the owner, and the final use of the different versions in a very summarized way to visualize in a first glance. All these contents belongs to the First Pilot of the VR Together project.

	Description	Corresponding pilot	Content Owner	Type
Media Unity 3D Scene GLTF Format	Unity scene containing the geometry of the rooms, fan animations, lights, FX and sounds	Pilot 1	VRT	FINAL VERSION
Media Unity 3D Scene Unity format	Unity scene containing the geometry of the rooms, fan animations, lights, FX and sounds	Pilot 1	VRT	FINAL VERSION
Media User 1_ 360 stereo panorama	360 panorama image in stereo version taken from the User 1 Point Of View	Pilot 1	VRT	DEMO VERSION
Media User 2 _ 360 stereo panorama	360 panorama image in stereo version taken from the User 2 Point Of View	Pilot 1	VRT	DEMO VERSION
Media User 1 _ 360 mono panorama		Pilot 1	VRT	DEMO VERSION
Media User 1_ 360 mono panorama		Pilot 1	VRT	DEMO VERSION
User 1 _Video Billboard		Pilot 1	VRT	DEMO VERSION
User 2_ Video Billboard		Pilot 1	VRT	DEMO VERSION

User 1_ Ambisonic track		Pilot 1	VRT	FINAL VERSION
User 2_ Ambisonic track		Pilot 1	VRT	FINAL VERSION
User 1_ 360 mono video		Pilot 1	VRT	DEMO VERSION
User 2_ 360 mono video		Pilot 1	VRT	DEMO VERSION
User 1_ 360 stereo video		Pilot 1	VRT	DEMO VERSION
User 2_360 stereo video		Pilot 1	VRT	DEMO VERSION

Table 3. Data sets uploaded

2.8. Content delivered: Description of contents uploaded to Zenodo

This section shows all the contents uploaded to the server Zenodo, detailing their characteristics. They are a more detailed description of the contents of the table in section 2.2

All the contents contain the following information:

- File name
- Content description
- Package description
- Purpose
- File size
- Format
- Thumbnail: a little image to illustrate the content uploaded
- Link of the content

The variety and multiplicity of uploaded formats is due to the fact that the different demos or experiments require different formats, depending on the play sources, the players, the integration and capture systems, etc. The variety of them ensures the utility and availability for each of the partners, for the different technological developments and demos made and experienced.

This way we present for both users and for final version and demo version, Unity scene and GLTF, stereoscopic and monoscopic panorama, billboards, ambisonic tracks, 360 videos in 2 formats, monoscopic and stereoscopic. The most efficient way to present the information is through tables that order the information in equal sections. Then, the contents uploaded to Zenodo are collected in detailed index.

All titles identify the user first. After this, the content is identified briefly, so that it can be labeled efficiently.

We want to point that the title of the content of each table or section does not correspond to the title of the file, which is shorter but following the same criteria as explained.

2.8.1. Media Unity 3D Scene GLTF Format

File name	Room_GLTF.zip
Content description	Room environment for the interrogation scene. Creation of the 4 3D spaces for the development of the story: 2 user rooms and 2 interrogation rooms. Creation of all the 3D elements that make it up: interrogating table, chairs, various decorative elements such as papers, fan, etc.
Package description	Zip with geometries, textures and animations.
Purpose	Web version of the project
File size	23.626 KB
Format	ZIP compressed
Thumbnail	
Link	https://zenodo.org/record/1452519

Table 4. Media Unity 3D Scene GLTF Format

2.8.2. Media Unity 3D Scene Unity format

File name	Room_Unity.unitypackage
Content description	Room environment for the interrogation scene. Creation of the 4 3D spaces for the development of the story: 2 user rooms and 2 interrogation rooms. Creation of all the 3D elements that make it up: interrogating table, chairs, various decorative elements such as papers, fan, etc.
Package description	UnityPackage containing geometries, textures and animations.
Purpose	Desktop version of the project.
File size	191.149 KB
Format	Unity Package
Thumbnail	
Link	https://zenodo.org/record/1456486

Table 5. Media Unity 3D Scene Unity format

2.8.3. Media User 1_ 360 Stereo Panorama

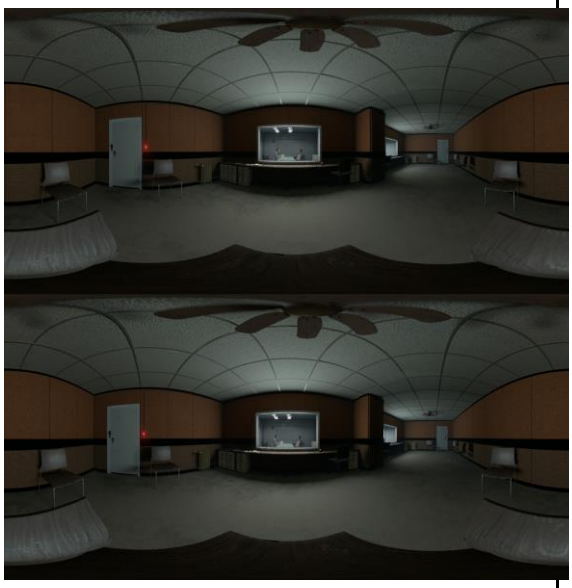
File name	User01_V1.0.jpg
Content description	Panorama image
Package description	360 panorama image. Stereo version Point Of View from User 1.
File size	33,7 MB
Format	JPG
Dimensions	8192x8192 px
Thumbnail	
Link	https://zenodo.org/record/1456521

Table 6. Media User 1_ 360 Stereo Panorama

2.8.4. Media User 2 _360 Stereo Panorama

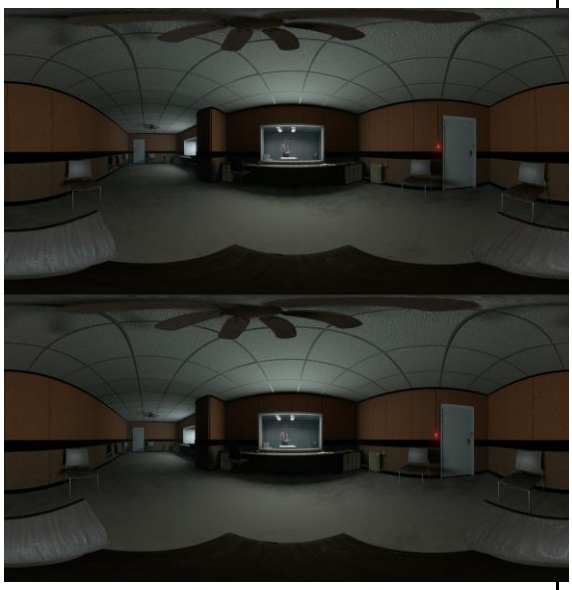
File name	User02_V1.0.jpg
Content description	Panorama image
Package description	360 panorama image. Stereo version Point Of View from User 2.
File size	33,7 MB
Format	JPG
Dimensions	8192x8192 px
Thumbnail	
Link	https://zenodo.org/record/1456521

Table 7. Media User 2 _360 Stereo Panorama

2.8.5. Media User 1_ 360 Mono Panorama

File name	User01_V1.0_mono.jpg
Content description	Panorama image
Package description	360 panorama image. Monoscopic version. Point Of View from User 1.
File size	17,4 MB
Format	JPG
Dimensions	8192x4096 px
Thumbnail	
Link	https://zenodo.org/record/1456521

Table 8. Media User 1_ 360 Mono Panorama

2.8.6. Media User 1_360 Mono Panorama

File name	User02_V1.0_mono.jpg
Content description	Panorama image
Package description	360 panorama image. Monoscopic version. Point Of View from User 2.
File size	17,4 MB
Format	JPG
Dimensions	8192x4096 px
Thumbnail	
Link	https://zenodo.org/record/1456521

Table 9. Media User 1_360 Mono Panorama

2.8.7. User 1_ Video Billboard

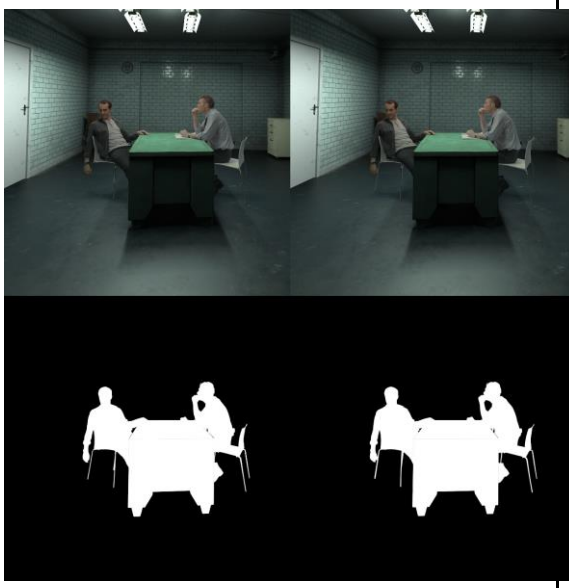
File name	Final-with-security-cam_User01__10-10-2018.mp4
Content description	Video billboard for User 1
Package description	Video Composition in stereo of User 1. Normal audio track. Image of the composition and integration of the room, in the upper side. Alpha compositing in the lower side.
File size	434 MB
Format	MP4
Codec	MPEG AAC Audio
Dimensions	4096x4096 px
Length	7:06 m
Bitrate	8000 kbps
Frame rate	29,97 fps
Audio	48000 Hz
Thumbnail	
Link	https://zenodo.org/record/1456687

Table 10. User 1_ Video Billboard

2.8.8. User 2_ Video Billboard

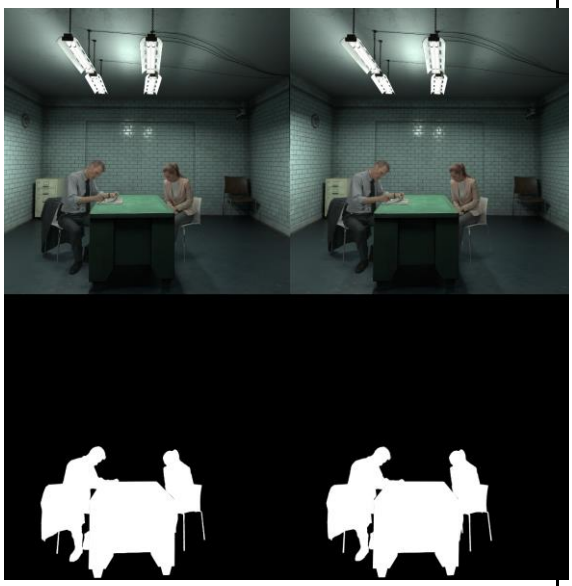
File name	Final-with-security-cam_User02__10-10-2018.mp4
Content description	Video billboard for User 2
Package description	Video Composition in stereo of User 2. Normal audio track. Image of the composition and integration of the room, in the upper side. Alpha compositing in the lower side.
File size	3432 MB
Format	MP4
Codec	MPEG AAC Audio
Dimensions	4096x4096 px
Length	7:06 m
Bitrate	8000 kbps
Frame rate	29,97 fps
Audio	48000 Hz
Thumbnail	
Link	https://zenodo.org/record/1456785

Table 11. User 2_ Video Billboard

2.8.9. Ambisonic track _User 1

File name	User1_AMBI.wav
Content description	Ambisonic audio track for User 1
Package description	Audio track with spatial audio information
File size	233 MB
Format	WAV
Codec	PCM S24 LE
Channels	2F2R
Duration	7:05 m
Bitrate	48000 Hz
Sample rate	32
Link	https://zenodo.org/record/1456542

Table 12. Ambisonic track _User 1

2.8.10. User 2_Ambisonic track

File name	User2_AMBI.wav
Content description	Ambisonic audio track for User 2
Package description	Audio track with spatial audio information
File size	234 MB
Format	WAV
Codec	PCM S24 LE
Channels	2F2R
Duration	7:06 m
Bitrate	48000 Hz
Sample rate	32
Link	https://zenodo.org/record/1456542

Table 13. Ambisonic track _User 2

2.8.11. User 1_360 Mono V

File name	User1_Mono_Audio_03-08-2018.mp4
Content description	User1_Mono_Audio_03-08-2018.mp4
Package description	Complete 360 monoscopic version for User 1. Video Composition of the full experience: Interrogation room story video and video compositing for conversation between the users. Equirectangular. Monoscopic.
File size	320 MB
Format	MP4
Codec	MPEG AAC Audio
Dimensions	4096x2048 px
Length	5:48 m
Bitrate	7000 kbps
Frame rate	29,97 fps
Audio	48000 Hz
Thumbnail	
Link	https://zenodo.org/record/1456866

Table 14. User 1_360 Mono V

2.8.12. User 2_360 mono video

File name	User2_Mono_H265_audio-17-08-2018.mp4
Content description	Complete 360 monoscopic version for User 2. Video Composition of the full experience: Interrogation room story video and video compositing for conversation between the users. Equirectangular. Monoscopic.
Package description	Video Composition in equirectangular, mono with the full experience for User 2
File size	778 MB
Format	MP4
Codec	MPEG AAC Audio
Dimensions	4096x2048 px
Length	6:55 m
Bitrate	15000 kbps
Frame rate	29,97 fps
Audio	48000 Hz
Thumbnail	
Link	https://zenodo.org/record/1457163

Table 15. User 2_360 mono video

2.8.13. User 1_360 stereo video

File name	User1_Stereo_Audio_03-08-2018.mp4
Content description	Complete 360 stereo version for User1
Package description	Complete 360 stereoscopic version for User 1. Video Composition of the full experience: Interrogation room story video and video compositing for conversation between the users. Equirectangular. Stereoscopic.
File size	652 MB
Format	MP4
Codec	MPEG AAC Audio
Dimensions	4096x4096 px
Length	5:48 m
Bitrate	15000 kbps
Frame rate	29,97 fps
Audio	48000 Hz
Thumbnail	
Link	

Table 16. User 1_360 stereo video

2.8.14. User 2_360 stereo video

File name	User2_stereo_H265_audio_17-08-2018.mp4
Content description	Complete 360 stereo version for User2
Package description	Complete 360 stereoscopic version for User 2. Video Composition of the full experience: Interrogation room story video and video compositing for conversation between the users. Equirectangular. Stereoscopic.
File size	777 MB
Format	MP4
Codec	MPEG AAC Audio
Dimensions	4096x4096 px
Length	6:55 m
Bitrate	15000 kbps
Frame rate	29,97 fps
Audio	48000 Hz
Thumbnail	
Link	

Table 17. User 2_360 stereo video

3. CONTENT CREATION: PILOT 2

This section is out of the scope of the current document version.

4. CONTENT CREATION: PILOT 3

This section is out of the scope of the current document version.

5. CONCLUSIONS

The objectives and the summary of this year during the development of the First Pilot are:

1. Creation of high quality content in different formats. We have achieved the following:
    - An 8-minute story about a crime with two users who must share and discuss the experience they are seeing.
    - An incredible technology that allows us to visualize ourselves in real time, while we see the story.
    - A content and a 3D environment of hyper-realistic quality like never before.
2. Evaluation of these contents through different demos that have been evaluated in Barcelona in October 2018 with end-users before uploading to Zenodo and by professionals at IBC 2018 on September 12th-17th, 2018 .
3. Creation of a story that allows the correct visualization of the technology developed and its presentation in different festivals and fairs in the sector.
4. Definition and specification of the lines of action for Pilot 2 through different calls and a technical meeting on October 1st in Madrid in which the current points were defined.

During the first year of the project we have managed to create and develop a fictional story that will be complemented with the other pilots. The first pilot is the first chapter of a murder story. The story developed focuses on the murder of Ms. Armova, a wealthy British lady, in unknown circumstances. Two people were present at the time of the murder: Ryan Zeller and Christine Gérard. Each suspect has his version of the crime and what happened that night, but it will be up to the users to draw conclusions. The next chapters of this story are expected to come out in the dates shown in the following figure.

Figure 15. Roadmap of the planned pilots

The second pilot (TBA, 2019) of the VR-Together project will continue the plot of the previous one, expanding and illustrating the crime investigation introduced in the first pilot. The pilot will being the day right after the crime. News will run across the channels while we will be taken into a news channel's set where we will meet other users and the anchor. She will describe the scene with another anchor at the crime scene.

The users then, will appear in a television contest set look-a-like. That will be an extraordinary opportunity to let the host to talk to the users, in simulated interactions. The host will make some statements, pointing and looking at a certain user. The host will ask some questions about the city affairs and about what's going on. That will evoke the users a feeling of direct interaction. The host will welcome then the other host from the news show, since they are going to share some updates about the crime scene. Then the users will be transported to the crime scene to get a review of all the events. The change of environment will be made in a full 3D transition, fading in or fading out depending on the moment. The users that are watching the scene already know the previous story told in the first pilot: who are murdered person, who are the suspects and who is leading the investigation.

The second pilot will consist in a live content production. All the partners agreed in October 2018 (GA in Madrid) and during severals virtual reunions to present the following combination of content and representation.

- For the live actors (not only the presenter, but also the victim), will be represented in 3D, using different body scans machines and tools and as well the motion capture technology. This methodology will be used to capture the whole body, fingers and the face of each participant in real-time. We will also improve our live system capture to see in real time the real users.
- It was discussed the use of two different motion capture systems. The first one would be a Vicon cameras system (https://www.vicon.com/products/camera-systems) for high-end capture process, and the second one would be the use of an HTC Vive trackers system (https://www.vive.com/us/vive-tracker/), and inverse kinematics to allow the generation of a full body animation as a lighter setup for travelling demos. The difference between the first and the second method would be a slightly degraded version if the second option is finally selected.

Finally for the motion capture data streaming, all of the software development kits will be available from botch Vicon cameras and HTC Vive Trackers. All the previous information can be summarized in the following roadmap.

	JULY	AG	SEPT	OCT	NOV	DIC	JAN	FEB	MAR	APR	MAY	JUNE	JULY
Pre-production process													
First ideas													
Discussion w/partners													
Definition of the plot													
Script definition													
Production tasks													
Shooting planning													
Production													
Shooting													
Post-production													
Material preparation													
Post-production planning													
Compilation													
P-P process													
Final details													

Figure 16. Roadmap of the expected pilot development

In conclusion, the utility of this deliverable is is to have a complete and global vision of the work done for the first pilot and to understand how this work is planned and how it has led us to modify and improve the first ideas for the Second Pilot. This deliverable agglutinates and identifies all the contents and their access links. It is also important that the document collects the utilities of each generated file, for an efficient use of it.

This deliverable had the following objectives:

GENERAL OBJECTIVES

1. To get a broad view of the content generated to support technological development and the different systems developed.
2. To get a broad view of the contents generated for the dissemination of the project.
3. To get a easily and quickly identification of each file
4. To order of the files
5. Evaluation of the files
6. To help the general evaluation of the first phase of the project

SPECIFIC OBJECTIVES

1. To identify needs of formats
2. To select suitable formats and discard the non-useful ones
3. To identify format failures
4. To identify users

5. To identify production problems
6. To identify technological development problems
7. To help the general evaluation of the first phase of the contents for the First Pilot and its dissemination.

6. ANNEX

I. Work planning

	FEB.	MAR.	APRIL	MAY	JUNE	JULY	SEPT.	OCT.
PRELIMINARY CONTENT DEVELOPMENT - PRE-PRODUCTION								
Definition of the production tasks of the first pilot (Entropy and Artanim)								
Research of production companies for casting, sound, camera equipment	From the 26th	To the 10th						
Definition and guidelines of content. Start from the work from previous months. Concretion	From the 26th	To the 10th						
Elaboration of Script and review		From the 12th	To the 2nd					
Script review and casting selection		From the 26th	To the 2nd					
Shooting planing		From the 26th	To the 2nd					
Script reading and rehearsal			The 2nd and 3rd					
PRODUCTION								
Shooting			From the 4th to the 7th					
POST-PRODUTION								
Material preparation and removal from discs.			From the 9th to the 20th					
Scripts updating after shooting. Compilation of camera parts, filming data, etc.			From the 9th to the 20th					
Editing and conforming			From the 9th to the 20th					
Shotgun of the project: Post production planning			From the 9th to the 20th					
Chroma cleaning. Unity scenario creation			From the 20th		To the 20th			
CGI of the elements, masks, lighting and integration			From the 20th		To the 7th			
Programming of the unity scenario			From the 20th		To the 20th			
Content delivery								
Showcase video 1: script and creation of a video to show the work. Graphism								
Showcase video 2 for advisory board: script and technical interviews								
Showcase video 1 delivery						The 28th		
Content for IBC demo								
Zenodo upload								
Content for VR Days Demo: programming and 3D works								
Programming and 3D settings								
Unity scenario last settings								
Subtitles								
Roadmap of Festivals calendar starting point: Sundance and South by Southwest								

II. Script

In the present section, both of the scripts written for the first pilot are presented. The scripts represents the two sides of the same story. The difference between them is the starring suspect who is being interrogated.

VR TOGETHER EPISODE 1
THE ARMOVA CASE

USER 1 - THE INTERROGATION OF RYAN ZELLER

FADE IN:

INT. INTERROGATION ROOM - LATE NIGHT

The user is sitting on the dark side of an interrogation room, looking at a one-way mirror. Through the mirror they can see the lighted side of the room, a spartan concrete box featuring just a bare table and two simple chairs.

In the user's side of the room, resting on a table in front of the user and a bit to his side, a screen is playing a recording on loop - a CCTV recording showing the entrance to Armova's apartment, with a timestamp: "17.45" We see ZELLER arriving at the door, and going in. The CCTV recording jumps ahead - timestamp "18.19". We see ZELLER going out and walking away. Another cut - "19.25". CHRISTINE arrives, wearing a spaghetti strap dress, her shoulders exposed and pale, no bandage on her arm. The recording jumps ahead - timestamp "22.03". CHRISTINE exits the building hurriedly, clutching her left arm, and runs away. The recording keeps looping.

Enter the SARGE, a middle-aged British cop, a tad jaded, slumped shoulders betraying his tiredness. He closes the door, drops a heavy folder on the table, then approaches the mirror and stares at the user, voice edged with sarcasm.

SARGE
Well, here we are. Back with the cool kids. Let's make this good, inspector.

He sits on the table and skim-reads through the dossier.

SARGE
What do we have here? Miss Yelena Armova, age 27…

(holds a picture for a second)
Rather easy on the eyes. Owner of an hotel empire, found dead in her Mayfair residence.
(looks up, winks at the mirror)
The tabloids must be all over this, eh? Guess that explains why the big shots at Europol got us out of bed in the dead of night. Alright, let's see it through.
(reads from the dossier)
Next witness, RYAN Zeller, age 34, playboy with a reputation for nastiness, saw Armova before she died.
(raises his voice)
Alright, let's get started!

A few seconds later, ZELLER enters the room, all confidence and swagger. An aging dilettante who hasn't accepted he's not in his twenties any more. His natural insolence and flamboyance are boosted with some substance - he moves erratically and occasionally slurs his words. He stands there for a second, looking around the room.

ZELLER
Whoa. This is the real deal, huh?

SARGE
Mister Zeller, take a seat. Tell us about last night, and especially… mister Zeller?

ZELLER ignores the policeman and heads to the mirror, seemingly fascinated, almost tripping on the chairs.

ZELLER grins and shields his eyes to see through the glass.

ZELLER
Hellooo. Hello? Someone there? Someone home? You bet...

With a sigh, SARGE approaches, taps ZELLER on the shoulder.

SARGE
Mr. Zeller!!!

ZELLER turns around nonplussed, as if he saw SARGE for the first time - then loses balance.

ZELLER
Not guilty. I didn't kill him, I mean her. Just here for the show.

SARGE
Sir, Have you taken drugs?

ZELLER
(running out of steam)
Drugs? Ha! You call them drugs, I call… it… breakfast.

ZELLER tries to straighten his back and stand but his knees falter. SARGE catches him before he falls, then shoots the user a resigned look through the mirror before helping ZELLER into one of the chairs.

ZELLER
(mumbling)
Oh man, this is a shithole.

SARGE sighs, obviously tired with the whole scene.

SARGE
Not your kind of suite, eh, Zeller?

ZELLER
Well, it's... not the Ritz.

SARGE slams a hand on the table and leans towards him, intimidating. He's had enough.

SARGE
But it's a bloody good warm-up for the jail. You can talk, or you can start getting used to it.

ZELLER claps, laughing, then coughs. He gestures with a trembling hand, pointing at SARGE, the mirror and the door.

ZELLER
Bravo. Hard cop. I've seen this one. You're gonna talk tough to me for a while, and then a nicer guy steps in, maybe a woman, she's all

smooth, so I spill. You gonna rough me up too?
(leans forwards, pointing to his own face, hopeful)
Hit me a couple times maybe, for the bragging rights? Nah?
(he sits back, disappointed, gestures around)

I guess all you have is this shit job, right?

SARGE
Alright, here's what I don't get, Zeller. You are filthy rich. You could have avoided this. You waived your rights because you wanted to talk to us. So talk. Why did you kill her?

ZELLER
Oh, I didn't.

SARGE
You're famous for having a temper.

ZELLER
uhm

SARGE
It doesn't make you look good. You're going to be famous as a murderer. A crime of passion.

ZELLER throws his arms up and shouts festively:

ZELLER
Bravo! Case closed! Well done, Sherlock!

SARGE remains silent, surprised with the confession…

ZELLER
(suddenly serious)
A crime of passion. You got that right. But, alas, I didn't do it. She did.

SARGE
So you're saying it's a suicide?

That sends ZELLER into a fit of laughter.

ZELLER
Not her. HER.

ZELLER points to, in the direction of the other room. SARGE looks towards the user. Right there, the LIGHTS GO OUT for a second, then they come back.

SARGE
(deadpan)
Who were you talking about?

ZELLER
Oh, come on. I know you have that glorified secretary in the can as well. Always hovering around her like,
(mimicking CHRISTINE)
"Lena sign this, Lena let me handle that, Lena you're late, Lena don't do drugs, Lena don't breathe." Fucking hell. Lena knew she wasn't working just for her.

SARGE
Miss Gérard?

ZELLER
Yeah, whatever. The menial.

SARGE
What do you mean, miss Gérard wasn't working only for Lena?

ZELLER
You think she can afford that with the pittance Lena paid? Selling her secrets. I told Lena, she wouldn't listen. Maybe she told her too, pillow talk or something.

SARGE
Industrial espionage, eh?

ZELLER
I'm doing your job here, officer.

SARGE

So if miss Gérard was selling Armova's secrets, who was buying? If we're talking business competitors, then right now I'm looking at a strong suspect. Wasn't she kicking you out of all major western European resorts?

For the first time, ZELLER visibly tenses up. He sits a bit straighter, pauses. Suddenly serious and calculating.

ZELLER
(quietly angry)
That has nothing to do with this.

SARGE
You have motive, opportunity, you're sitting there trying to find a scapegoat. I could sell it.

ZELLER
(interrupting)
You could try.

SARGE
(unfazed)
...or you could tell me what you actually know, if you really believe it was miss Gérard.

ZELLER
(gesturing to the other room)
Well, talk to her! Ask her about her real job, spying on Lena for years...

The outburst makes ZELLER a little dizzy. He blinks, shakes his head to clear it. SARGE tut-tuts.

SARGE
Easy on the booze, Zeller.

ZELLER
I'm fine… a bit under the weather. Just need to stretch my legs...

ZELLER gets up, carefully, closely watched by the cop.

SARGE

What time did you get to her apartment?

ZELLER walks up to the mirror again. He blinks uneasily.

ZELLER
Eh, six? Maybe five-thirty…

...And then Chris arrived...

...made a fuss...

...We had a drink…

...At eight or so.

SARGE
(nodding at the user)
OK, we'll check.

(back at ZELLER)
We found blood on the crime scene, Zeller, but it wasn't Lena's. Did someone get hurt?

ZELLER
Blood? No…

ZELLER gasps for air, eyes wide open.

ZELLER
I didn't… do… do-don't...

SARGE
(impatiently)
I need facts, Zeller! When you left, was miss Gérard still with miss...

ZELLER retches and drops to the floor, spasming. SARGE jumps to his feet and tries in vain to wake ZELLER up.

SARGE
What the… Medic! We need a medic!

FADE OUT:

USER 2 - THE INTERROGATION OF CHRISTINE

FADE IN:

INT. INTERROGATION ROOM - NIGHT

The user is sitting on the dark side of an interrogation room, looking at a one-way mirror. Through it they can see the lighted side of the room, a spartan concrete box containing just a table and two chairs.

In the user's side there's an open dossier, resting on the table. It reads: "Forensic analysis of the body: (under way), Preliminary cause of death: widespread trauma stemming from fall from balcony. Forensic analysis of the room has focused on three glasses of whisky, one of them containing chemicals (symptoms: dizziness, euphoria, disorientation, vomit, heart failure if untreated)."

In the lighted side of the room, SARGE is reading a dossier.

SARGE
(he looks up at the user)
Have you read the dossier, inspector?
(he reads)
Yelena Armova, age 27, top businesswoman, darling of the London tabloids, found dead in her Mayfair mansion. No witnesses, no leads.
(winks at the user)
Sounds like we're out on a wing and prayer, eh? So let's close this case soon. I'd rather be having a pint in Margate, instead of a friendly chat with…
(he reads again)
Miss CHRISTINE Gérard, age 30, Armova's assistant. Last person to see her alive.
(yelling)
Send her in, lads!

A few seconds later, CHRISTINE enters the room and stops.

CHRISTINE is a professional-looking woman, composed and conservatively made-up. Her movements and gestures are tightly controlled, as she's trying to rein in her emotions. She's wearing trousers and a short-sleeved shirt, all very office-smart. A big adhesive bandage covers most of her left forearm.

She stands at the threshold for a second, looking at the cop, the table and the mirror.

SARGE
Come in, CHRISTINE. I hope you have some answers for me…

CHRISTINE
(coldly)
I don't think we're on a first-name basis yet. Sir.

SARGE does a mock bow, indicating the chair.

SARGE
Touché, ma'am. If you would be so kind as to take a seat, ma'am.

CHRISTINE sits, reluctantly. SARGE turns to the mirror.

SARGE
Where were you last night? Exact times.

CHRISTINE
I had been reviewing Le… miss Armova's schedule with her, at her apartment.

(Sarge looks at her)

She hast to attend a cocktail at the embassy, so we wrapped up and I left.

Must have been nine o'clock.

SARGE
And what time did you arrive?

CHRISTINE

(without hesitation)
Twenty-five past seven.

SARGE turns around to look at her.

SARGE
That's surprisingly precise timekeeping, miss Gérard.

CHRISTINE
I suppose I am a surprisingly precise individual, officer. That's why I am Le-… was, miss Armova's assistant.

SARGE
Was she a generous employer?

CHRISTINE
(choosing her words)
She was… correct. Stern, but fair.

SARGE
By which you mean she was stingy as hell and notoriously vicious. You seem pretty well-off, miss Gérard. Your account shows quite a tidy sum, for a secretary.

CHRISTINE
With all due respect, you didn't know miss Armova, officer. I did. She was a great businesswoman, a mentor, and an inspiration. And may I add, my finances are none of your business.

SARGE
(without missing a beat)
Did you hurt yourself?

CHRISTINE
(taken by surprise)
Beg your pardon?

SARGE
Your wrist.

CHRISTINE touches the bandage on her arm, reflexively.

CHRISTINE
Oh, no… well, in a way. I fell down some stairs last week. I hope that's not a crime yet, inspector?

SARGE
Devil's in the details, miss Gérard. So you arrived at miss Armova's apartment at 7.25 and departed at 9. We'll check.
(he nods to the user)
Were you two alone during all that time?

CHRISTINE
(with evident distaste)
No. A… friend of miss Armova was there as well.

SARGE
Who?

CHRISTINE

RYAN Zeller. They had a… private conversation, and then he left.

SARGE
What time?

CHRISTINE
I don't recall.

SARGE
That's a surprise. I thought you were a very exact woman.

CHRISTINE
I was miss Armova's assistant, not Zeller's. She was supposed to attend a charity fundraiser in Milan today. We went over the details and then I left.

The lights flicker and go out for a second, then they're back. SARGE walks around the table, her gaze following him.

SARGE

Miss Gérard, would you describe yourself as a loyal employee?

CHRISTINE
Of course!

SARGE is now standing next to CHRISTINE, so that she needs to look up to face him. CHRISTINE frowns, uncomfortable.

SARGE
You strike me as an exceptionally devoted employee, you do. Much more than anyone would reasonably expect, considering miss Armova's reputation for cruelty and ruthlessness.

CHRISTINE
(irritably)
And what are you implying, officer?

SARGE
You knew Lena very well, didn't you? Perhaps better than anyone else. How long have you been her assistant?

CHRISTINE
Three years. But she's miss Armova…

SARGE
(implacably)
Three years. Traveling with her, living with her. Must have been quite a bonding experience, Lena and you.

CHRISTINE
(raising her voice, exasperated)
I don't like your tone, officer…

SARGE

(talking over her)
Such an impressive devotion. I can absolutely understand why you didn't want Zeller around her.

CHRISTINE
Zeller wanted her dead…

SARGE
(louder)
And how would you know that? Obviously you had a mission, but you grew too attached to her during those years…

CHRISTINE
(furious)
I won't stand here and…!

SARGE
(drones on, talking over her)
It was more than your job. It was your life. You wanted to keep her to yourself, keep Lena away from men like Zeller...

CHRISTINE gets up, fists clenched.

CHRISTINE
She is Miss Armova to you!

SARGE
...you were jealous. All those years, all your loyalty, and Lena couldn't be faithful to you, she had to get high with Zeller, she never valued what you sacrificed to be with her...

CHRISTINE
(yelling, lost all composure)
She's miss Armova to you! Don't you bloody call her Lena, you pig! You don't know her! Zeller wanted her gone, and I told her! But she didn't listen, so I followed her to the kitchen… confused..., she got angry, Zeller was… she grabbed...

CHRISTINE shuts up abruptly, sits down, trembling, nursing her arm. SARGE follows her movement, squatting to keep eye level.

CHRISTINE
(suddenly calm and cold)
He did it. Zeller. He's your man. I was only trying to protect her from him.

SARGE
And what did you do to protect her?

CHRISTINE
I warned her. I tried to keep him away. She thought he loved her, but it was just business to him…

SARGE
And what was it to you? I think you were working for Zeller, and now that the going gets tough you're turning on him. Did Zeller tell you to poison her?

CHRISTINE looks at him. Suddenly, she smiles, a mirthless, savage smile. All her shyness is gone. She's in control.

CHRISTINE
What!! Nice try. He's using me to cover his ass. Are you sure it was her that was poisoned?

SARGE
(realising he's made a mistake)
Come on, CHRISTINE

CHRISTINE
I want a lawyer.

CHRISTINE
(interrupting)
I. Want. A. Fucking. Lawyer.

CHRISTINE crosses her arms, eyes defiant. SARGE looks back at her for a couple of seconds, then at the user.

SARGE
I'll be… Alright, we're done here.

CHRISTINE gets up, and before walking out, she shoots a victorious smile at the user.

FADE OUT:

III. Call for filming and planning (April 5th and 6th)

CONTACT INFO
DIRECTOR. Ignacio Lacosta. +34 646 97 65 79
PRODUCER. Ana Revilla. +34 639 30 63 94
VFX SUPERVISOR. Javier Lajara. +34 670 63 36 53
MGMT. ASSIS. Guillermo Calahorra. +34 644 05 91 38
ARTANIM CONTACT. Caecilia Charbonnier. +41 (0)22 980 91 92

Working time: 08:00-20:00 / **Ready**: 08:30
Coffee break: 11:00 / **Lunch**: 13:00 / **Dinner**: 20:00
Location: Chemin du Grand-Puits 40, 1217 Meyrin, Switzerland
Weather forecast:

High: 13°C, Low: 2°C
Precipitation: 80%
Sunrise: 7:08 AM, Sunset: 8:09 PM

Closest hospital: Avenue J.-D.-Maillard 3, 1217 Meyrin, Switzerland
Hotel NH Geneva Airport: Avenue de Mategnin 21, 1217 Meyrin, Switzerland
Dinner: 20:00. We will go directly to the restaurant, not going first to the hotel.

TECHNICAL TEAM	ACTORS TEAM
DIRECTOR. Ignacio Lacosta. **PRODUCER**. Ana Revilla. **VFX SUPERVISOR**. Javier Lajara. **MGMT**. **ASSIS**. Guillermo Calahorra. **ARTANIM SCANNING/MOCAP**. Caecilia Charbonnier. **ARTANIM SCANNING/MOCAP**. Henrique Galvan. **ARTANIM SCANNING/MOCAP**. Sylvain Chagué. **DOP. CAMERA**. Cristian Domínguez. **MAKEUP STYLIST**. Alejandra García. **SOUND TECHNICAL**. José Luis Lara. **ELECTRICAL TECH**. Jorge Zetac. **CHROMA TECH**. Marta Zetac.	**ACTRESS**. Almudena Calvo. **ACTOR**. Steve Joffrey Vazquez. **ACTOR**. Jonathan David Meillor.

CITATION TECHNICAL TEAM

DIRECTOR	08:00	PRODUCER	08:00	VFX SUPERVISOR	08:00
MANAGEMENT ASSIST.	08:00	CAMERA	13:00	MAKEUP-STY	08:00
SOUND TECH.	13:00	ELECTRICAL TECH.	08:00	CHROMA TECH.	08:00
ARTANIM #1	08:00	ARTANIM #2	08:00	ARTANIM #3	08:00
ARTANIM #4	08:00	ARTANIM #5	08:00		

CITATION ACTORS SCANNING

#	CHARACTER	ACTOR	P/UP	MAKEUP-HAIR	CLOTHING	READY	COMMENTS
1	SARGE	JONATHAN MEILLOR	08:00	08:00	08:00	08:30	
2	CHRISTINE	ALMUDENA CALVO	09:00	08:00	08:00	09:30	
3	RYAN	STEVE JOFFREY	09:00	08:00	08:00	09:30	
4	POLICE	ANA REVILLA	08:00	08:00	08:00	08:30	

CITATION ACTORS SHOOTING

#	CHARACTER	ACTOR	P/UP	MAKEUP-HAIR	CLOTHING	READY	COMMENTS
1	SARGE	JONATHAN MEILLOR	14:00	14:00	14:00	14:30	
2	CHRISTINE	ALMUDENA CALVO	14:00	14:00	14:00	14:30	
3	RYAN	STEVE JOFFREY	14:00	14:00	14:00	14:30	
4	POLICE	ANA REVILLA	14:00	14:00	14:00	14:30	

Production

XXX

Management coordination

XXX

CONTACT INFO
DIRECTOR. Ignacio Lacosta. +34 646 97 65 79
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ARTANIM CONTACT. Caecilia Charbonnier. +41 (0)22 980 91 92

VRTogether

Pilot #1
Shooting order #2
Friday, April 6th, 2018

Working time: 08:00-18:00 / **Ready**: 10:15
Coffee break: 11:00 / **Lunch**: 13:00
Location: Chemin du Grand-Puits 40, 1217 Meyrin, Switzerland
Weather forecast:

Fri
19° 4°
High: 19°C, Low: 4°C
Precipitation: 0%
Sunrise: 7:07 AM, Sunset: 8:10 PM

Closest hospital: Avenue J.-D.-Maillard 3, 1217 Meyrin, Switzerland
Hotel NH Geneva Airport: Avenue de Mategnin 21, 1217 Meyrin, Switzerland

MAKE UP STYLIST: Recoger y libre
ZETAC: Recoger y libre

La cena será en el centro de Ginebra. Comunicaremos por whtasapp

TECHNICAL TEAM	ACTORS TEAM
DIRECTOR. Ignacio Lacosta. **PRODUCER**. Ana Revilla. **VFX SUPERVISOR**. Javier Lajara. **MGMT. ASSIS**. Guillermo Calahorra. **ARTANIM SCANNING/MOCAP**. Caecilia Charbonnier. **ARTANIM SCANNING/MOCAP**. Henrique Galvan. **ARTANIM SCANNING/MOCAP**. Sylvain Chagué. **DOP. CAMERA**. Cristian Domínguez. **MAKEUP STYLIST**. Alejandra García. **SOUND TECHNICAL**. José Luis Lara. **ELECTRICAL TECH**. Jorge Zetac. **CHROMA TECH**. Marta Zetac.	**ACTRESS**. Almudena Calvo. **ACTOR**. Steve Joffrey Vazquez. **ACTOR**. Jonathan David Meillor.

CITATION TECHNICAL TEAM

DIRECTOR	09:30	PRODUCER	08:00	VFX SUPERVISOR	09:30
MANAGEMENT ASSIST.	09:30	CAMERA	09:30	MAKEUP-STY	09:30
SOUND TECH.	09:30	ELECTRICAL TECH.	08:00	CHROMA TECH.	08:00
ARTANIM #1	08:00	ARTANIM #2	09:00	ARTANIM #3	08:00
ARTANIM #4	08:00	ARTANIM #5	09:00		

CITATION ACTORS MOCAP

#	CHARACTER	ACTOR	P/UP	MAKEUP-HAIR	CLOTHING	READY	COMMENTS
1	SARGE	JONATHAN MEILLOR	09:30		09:30	10:15	
2	CHRISTINE	ALMUDENA CALVO	09:30		09:30	10:15	
3	RYAN	STEVE JOFFREY	09:30		09:30	10:15	
4	POLICE	ANA REVILLA	09:30		09:30	10:15	