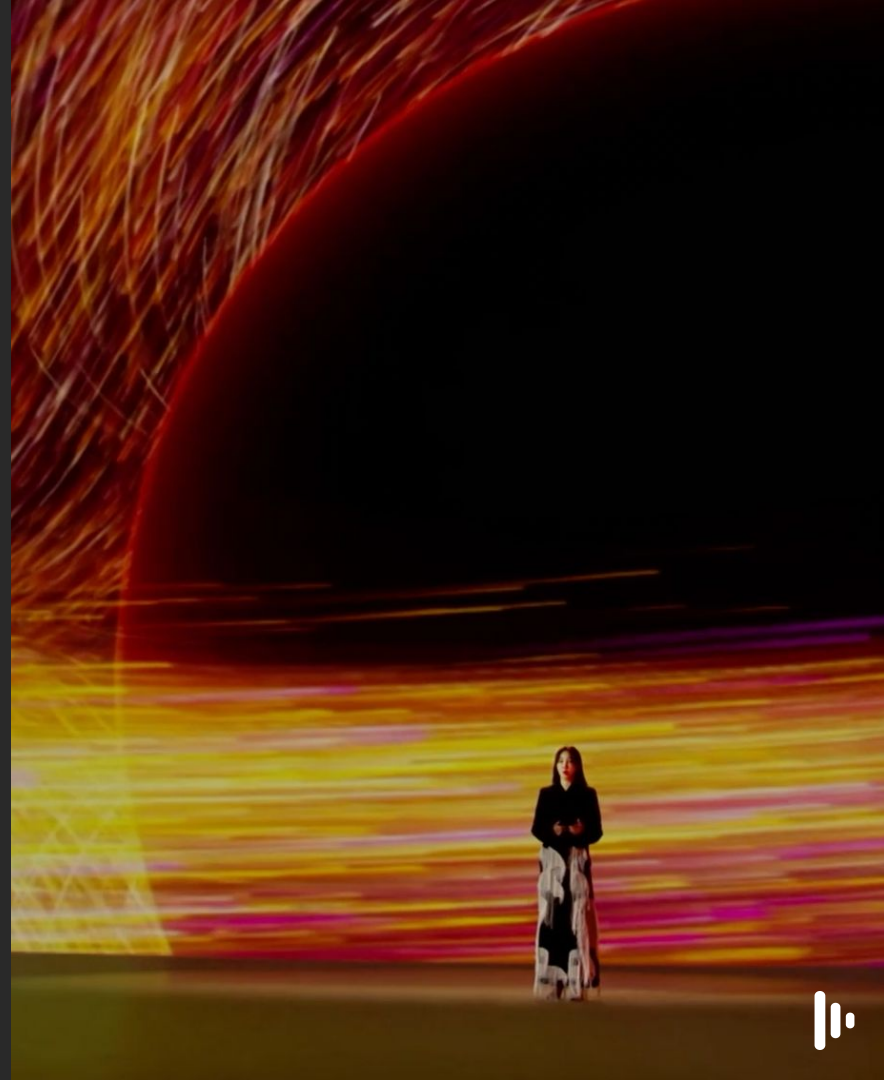


EBS explores the depths of space with expansive xR studio

For a high profile documentary series on the universe hosted by one of Korea's leading actresses, the country's educational public broadcaster EBS chose disguise's Extended Reality (xR) platform so they could create a virtual set that would best showcase the intergalactic elements of the show.

In this case study you will learn how EBS teamed up with BasicTech to use two disguise rx render nodes and one vx 4 media server in their xR-enabled studio, and expand the scope of their production to the very edges of the universe.



At a glance

Korea Educational Broadcasting System (EBS) has been promoting lifelong education for Koreans since the 1980s, offering a diverse mix of original and imported programming. Like many of their original productions, their 2021 documentary series 'The Home' had all the makings of a prestige television show. Hosted by Lee Ji-ah, the host of popular Korean drama series Penthouse, EBS planned an in-depth look at the mysteries of the universe. To do this they needed an engaging way to capture the scale of the universe on screen.

The production team decided a collaboration with disguise-enabled xR solutions company BasicTech would enable them to fulfill their vision and offer an immersive look at the universe whilst keeping Lee Ji-ah at the centre of the action.



The challenge

EBS's *The Home* would be a short-form documentary series that explored various concepts informing the way the universe works. Their first episode saw the biggest challenge of all: visualising the entire history of the universe that showcased the big bang and the actions of the individual particles that would eventually bring about life itself.

xR and augmented reality (AR) technology offered the perfect method to achieve this, allowing host Lee Ji-Ah to present whilst being immersed in the universe itself. Filming on BasicTech's xR stage in Paju, she would be able to interact with her surroundings and deliver a natural performance.

"I believe that disguise xR offered the best solution to express the fantasy visuals of the infinite universe in a documentary format," says director and producer of *The Home*, Hooyoung Jang.



The solution

AR technology visible on set

Using AR technology, Jang was able to surround Lee Ji-Ah with the trembling particles themselves, rendered live using disguise's rx rendering node. Though Ji-ah couldn't see the AR elements that danced around in front of her, she could interact easily with them - because the real-time content rendered on the xR studio's LED walls and floor provided visuals to draw reference from. The director could also see the live render and give more precise instructions.

disguise's set extension feature reveals an expansive universe

The team wanted to create a sense of scale by presenting Ji-ah in front of towering images of the forming universe. Extended sets created using Unreal Engine and delivered through disguise's rx render node and vx 4 media playback server allowed for Ji-ah to perform direct to camera in a small room and have the virtual world stretch out around her, resembling an artificially realised galaxy, or newly formed sun.

“

disguise greatly contributed to our ability to overcome the limitations of the studio by expanding our limited space indefinitely.”

Hooyoung Jang, Director and Producer, 'The Home'



The results

“The LED-based xR solution ensured we had access to advanced workflows that were fast and responsive while we filmed on-site,” says Jang.

“disguise’s system allowed us to sufficiently simulate the workflows before filming, so we knew what to expect on the day. If we needed to change anything we had the ability for real-time response with fast results.”

As well as the ability to control every element of the xR studio through disguise’s workflow, the team valued the technical support offered by disguise. With the technology developing quickly, even the BasicTech team could see the difference from their earliest experiences just a year earlier.

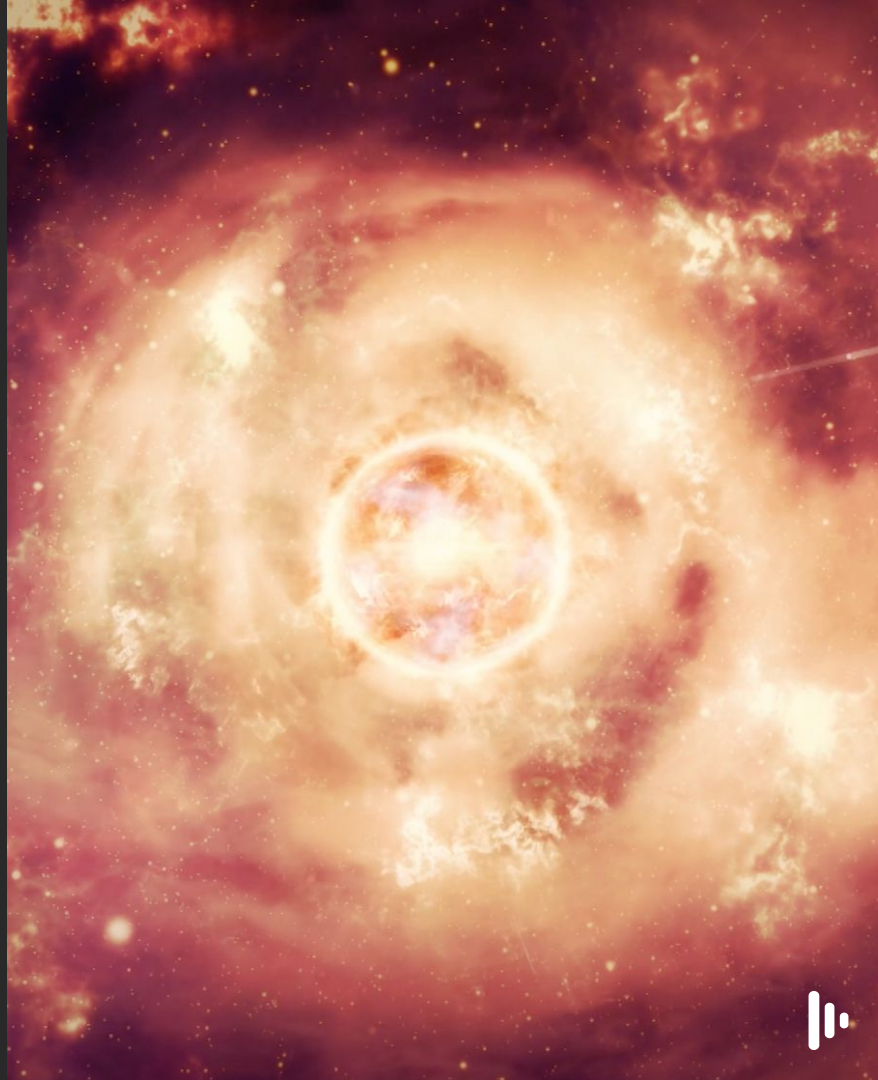
“Studio production has the advantage of reducing costs and allowing more freedom during production due to the scope of creation on offer,” Jang added.



Success

The first episode of 'The Home' captured the sheer magnitude of the big bang, and the remarkable events that created our universe.

The camera offered a number of dynamic shots of the host, placing her in the middle distance so that a galaxy towered over her. This was achieved through disguise's virtual zoom software feature, which offers productions the ability to shoot as though they were in much larger studio spaces. The effect comes together with so many other simple touches to create a final product that fits the high standards of Korea's leading educational broadcaster.



disguise equipment used

vx 4



The vx 4 has been engineered to playback video at higher quality, smoothness and resolution than ever before.

[Find out more](#)

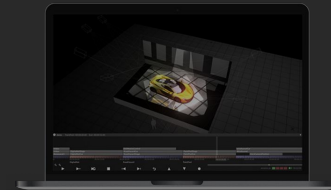
rx



The rx is engineered to deliver new possibilities for scale out rendering.

[Find out more](#)

Designer



Designer is the ultimate software to visualise, design, and sequence projects from concept to showtime.

[Find out more](#)



Credits

EBS

Producer: EBS

Director: Hooyoung Jang

CG Design: Jooik Jung and Eyeonestudio

Video Management & Equipment:

Youngsan Yoon and BasicTech

BasicTech

xR Technical Specialists: BasicTech

xR Creative Director: Minsoo Kang

xR Technical Integrator: Hyeonwoo Lee

disguise xR Programmer: Donghoon Shin

Lead Content Designer: Inwook Lee

Unreal Engine Designers: Hyunsok Jung,
Johyeon Lee, Hyeongjin Ju, Eunyoung Yang

Notch VFX Designer: Jisun Byun

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www.basictech.co.kr

 disguise



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