



# Design Studio Ars Thanea Uses the Art of Imagination to Bring a Forest to Life with NVIDIA Omniverse Enterprise

Image courtesy of Ars Thanea

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—Jakub Grobelny, Studio Supervisor at Ars Thanea

## CHALLENGE

Ars Thanea is an award-winning studio that blends creativity with technology to create engaging stories. From design and animation to live action and VFX, Ars Thanea delivers experiences that drive businesses for the most demanding brands worldwide. In one of their recent R&D projects, the team wanted to build and render a forest using scanned data and existing images. The studio’s goals for this project included:

- > Discovering new tools for filmmakers
- > Improving planning for video shoots
- > Using virtual production to combine live-action outdoor shoots with on-set footage
- > Finding ways to reduce the carbon footprint for filmmaking and advertising

But with artists mostly working from different locations around the world, they needed a solution to help them reach their goals and allow them to work more efficiently, collaborate easily, and accelerate content creation pipelines.

## SOLUTION

Ars Thanea believes Universal Scene Description (USD), an open-source framework for 3D graphics data interchange among different software tools, will be the future of design workflows. The studio used NVIDIA Omniverse™ Enterprise for content collaboration and real-time rendering for virtual production. The software platform, which is built on USD, helped the team recreate pieces of the forest-based on 3D scanned data. The team shot countless 100-megapixel images, resulting in a point cloud totalling 250GB. Omniverse was also used as a central hub for all the data exchange, and Ars Thanea could easily bring users into the Omniverse pipeline without requiring them to change their DCC tools. Autodesk Maya was the entry point for the project and was used for camera animation and lighting, bringing the data in through an Omniverse Connector for the app. SideFX Houdini was used to scatter the forest with additional trees, and Omniverse RTX Renderer was used to view changes in real time. With Omniverse Create, the artists could hand-place trees, create tree patches, and then tweak them to fit the forest floor. This collaborative workflow was key for

enabling high-profile VFX artists to work both remotely and on-site. Path tracing and render quality were also important factors of the tool choice. With the RTX Renderer in Omniverse Enterprise, powered by the NVIDIA RTX™ 8000, Ars Thanea can render photorealistic and physically accurate images in real time.

## IMPACT

In addition to faster rendering, the team was able to simultaneously collaborate in one virtual space. Using the Omniverse Create app, one artist would be placing trees in a scene, while another artist was multiplying tree patches in the same scene. In the end, the instancing was incredibly efficient. “The thing we loved was the non-destructive workflow,” said Jakub Grobelny, Studio Supervisor at Ars Thanea. “Omniverse created a level of safety when working on other people’s assets, and it created a better mindset that allowed more freedom to collaborate.” The platform also enabled the artists at Ars Thanea to stay within their preferable DCC zone, so they could easily jump into USD workflows. Throughout the project, Omniverse Enterprise Nucleus Server was used to bring all the 3D data together, allowing a constant collaboration of artists that were working in distant physical locations.

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