

# NADA HOLDINGS is leveraging MediaTek's AI technology "Edge AI" to bring revolutionary advancements to Taiwan's ACG (Animation, Comic, Game) industry and the global ACG industry.

NADA HOLDINGS (智寶國際), which has been accumulating research in the production area of the ACG industry for many years, announced on May 9, 2024, the launch of its AI animation assistant tool, "AIFRED." "AIFRED will bring a revolutionary evolution to the Taiwanese and global ACG industry."

AIFRED integrates LoRA Fusion, a Generative AI (abbreviated as "GenAI") technology, into MediaTek's terminals and leverages NADA HOLDINGS's ACG content IP to enable a smarter character generation process and animation movement with smarter and higher quality. AIFRED also incorporates Cyltek's (中雍科技) AI MEMC dynamic compensation technology to effectively improve animator productivity. AIFRED will also be combined with JP Games' PEGASUS WORLD KIT, one of the leading companies in the global game creative scene, to rapidly generate 3D characters from text and images and improve production quality.

NADA HOLDINGS' AIFRED deploys MediaTek's LoRA Fusion technology to rapidly generate images from text-based information on PCs and mobile devices. MediaTek's LoRA Fusion technology combines the basic model of Stable Diffusion ver. 1.5 with LoRA fine-tuning technology to generate the specified character at the device terminal. AIFRED is expected to benefit from the collaborative research and application of NADA HOLDINGS and JP GAMES in the ACG domain, ensuring that the generated images and videos will be of the industry's highest quality. The generated images and videos will be of the highest quality in the industry. Furthermore, combined with MediaTek's GenAI Security encryption technology, AIFRED will be able to generate specific characters on authenticated devices upon IP request. This enhances creativity and takes an important step forward in copyright protection. It also represents a strong commitment by NADA HOLDINGS to protect the copyrights of its creators.



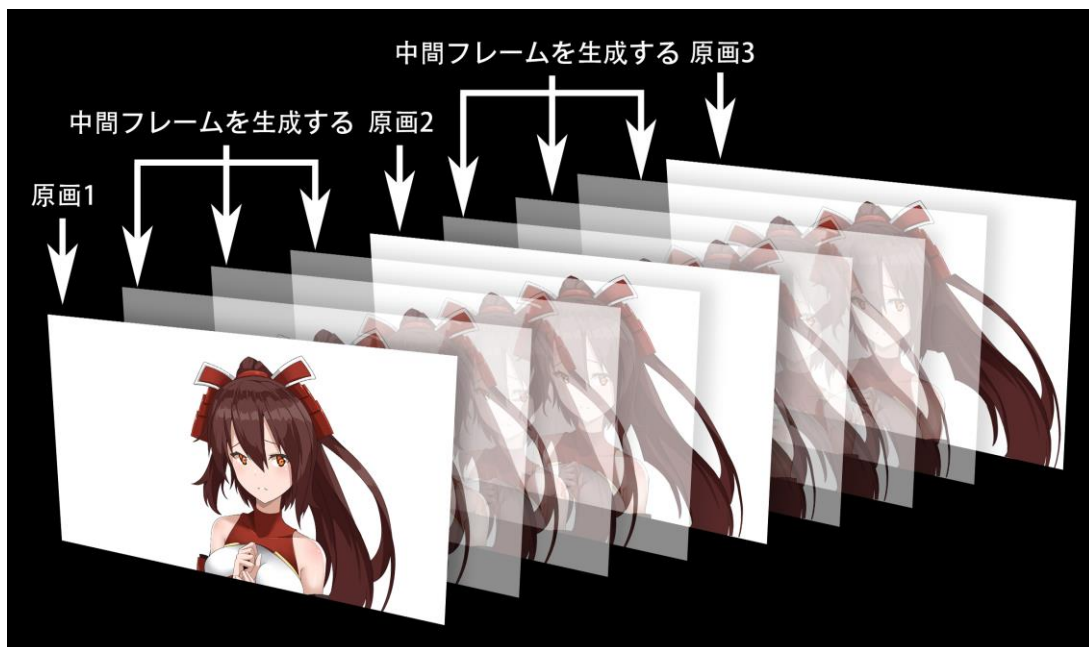
▲ 《Image Photo》 Unauthenticated devices cannot correctly generate certain characters, ensuring IP security.

AIFRED also greatly simplifies the animators' work process and reduces their workload: by introducing AIFRED into the animation production process, animators only need to focus their energy and time on the main screen and creative ideas, while other necessary tasks (e.g. video production) are automatically generated by AIFRED: AIFRED not only reduces the animation production process and time by more than 20%, but also allows for more detailed expressions to be rendered smoothly and attractively through automatic frame filling. AIFRED can be used not only in the animation industry, but also in advertising, film, television, games, and other related industries that require image and video generation, ushering in a new era of quality and efficiency for the entire ACG industry.

**The global ACG industry is growing at a CAGR of 9.8%, but a shortage of animator talent is a major concern for the industry**

According to a global animation market analysis from 2018 to 2030 by market research firm Global View Research, the global animation market size is expected to reach \$60.07 billion by 2030, with a compound annual growth rate (CAGR) from 2023 to 2030 of 9.8% (Note 1) from 2023 to 2030. In recent years, animation and video games have become social phenomenon-level blockbusters, and modern animation production has surprised many people by reaching new heights in screen precision and high-quality expression, sparking attention and debate. However, exquisite scenes and images depend on animators to create them one by one, which is extremely time consuming. Balancing quality and efficiency has been a perennial challenge for the animation industry. In general, animation production requires 24 pictures per second to produce a smooth image. Under the pressure of production schedules and budget control, animators in the animation production field reduce the number of pictures at the expense of animation quality in order to save time and money. In addition, due to the extremely large workload of animators, there are frequent cases of overwork and delays in the progress of the work.

AIFRED is a revolutionary new technology developed to solve this problem. AIFRED analyzes the original screen of "key frames" drawn by the animator and automatically generates intermediate frames, or "intermediate motion pictures," to produce a smooth image. The animator no longer needs to draw every frame, and can immediately see the results of the completed interpolation, dramatically increasing production efficiency. By learning AI, the tool can automatically complete the required number of frames in a very short time. By supplementing the intermediate frames, especially in scenes such as seawater, special effects, and high-speed combat, the tool not only reduces the burden on the animator, but also significantly improves the production quality of the work.



▲ 《Image Photo》 AI assistant is used to generate intermediate frames (moving images) from the three original keyframes to create a smoother animated image.

AIFRED stands for "Artificial Intelligence FFrame-interpolation Edge-computing Deputy," inspired by Alfred, the trusted Batman assistant. This will be the most effective assistant to help animators maximize their professional performance.

Mr. Lin Shichen, General Manager of NADA HOLDINGS Group General Management Department, said, "The rapid development of AI technology is opening new doors for content production, and AIFRED will significantly improve the quality and quantity of animation productions, injecting powerful energy into the development of the ACG industry. We are confident that AIFRED will lead to vigorous growth in the production value of the ACG market, bringing unprecedented prosperity and opportunity." He stated.

### **Global Application! NADA HOLDINGS, JP GAMES and Cyltek Partner to Promote AI Automated 3D Modeling Generation**

In addition to the launch of AIFRED, NADA HOLDINGS has formed a strong partnership with Cyltek and JP Games of Japan to incorporate its auto-generation technology into JP Games' PEGASUS WORLD KIT (PWK for short), an RPG/metaverse production middleware, PWK's engine functions will be enhanced. The PWK engine will be able to quickly and massively generate 3D characters in a variety of styles using images, effectively reducing the time required for 3D modeling. JP Games' game space meta platform, RYUGUKOKU®, also incorporates AIFRED's technology and leverages its powerful and rapid generation capabilities to provide even richer and more diverse game content.

We are committed to providing maximum technical support so that our deep learning AI tools can create an environment where creators can focus on creation and innovation," said Shi-Chen Lin, General Manager of the NADA HOLDINGS Group General Management Department. We also expect that the world-class technological development and application we bring to the table will result in a quantum leap in quality for ACG content creation. said Mr. Krishnamoorthy.



▲ "RYUGUKOKU®" is a dream world realized in the metaverse.

### **NADA HOLDINGS (智寶國際)**

Founded in 2015, NADA HOLDINGS (智寶國際) specializes in IP production investments in ACG content and focuses on IP industry resource coordination and project management for the international market. To date, NADA has established reliable partnership relationships with partners in the Japanese animation industry and is the only Taiwanese company to have formed multiple production committees in Japan. In the past, the company has had successful partnerships with Japanese companies for original Taiwanese IP productions, including projects such as "Ekken Chien Aojino Yo" and "Genso Sanguozhi".

### **MediaTek (Taiwan Stock Exchange Number: 2454)**

A global fabless semiconductor manufacturer serving approximately 2 billion connected devices annually, MediaTek is a market leader in the development of innovative system-on-chips (SoCs) for mobile devices, home entertainment, connectivity and IoT products. Through its dedication to innovation, the company has established market leading positions in key technology areas including power efficient mobile technologies and advanced multimedia solutions. Their technologies are used in a wide range of fields and products, including smartphones, tablets, digital TVs, 5G, voice-assisted devices (VADs), wearable devices, and automotive solutions.

### **Cyltek (中雍科技)**

Cyltek is a pioneer of generative AI in Taiwan and has a strong AI algorithm R&D team to design and provide solutions tailored to various needs. The company supports industries moving into the AI era with the most valuable big data analytics in a professional, precise, and efficient manner.

### **JP GAMES Inc.**

JP Games Inc. is a game development studio founded by game creator Hajime Tabata, who formerly worked on the Final Fantasy series at Square Enix Group. With the concepts of "evolving RPGs" and "making the future fun with the power of games," JP GAMES pursues the possibilities of games without being bound by conventional frameworks.

Official HP: <https://jpgamesinc.com/>.