

# Autodesk Games Insight

The latest scoop from Autodesk Media & Entertainment



Warhammer Online: Age of Reckoning. Image courtesy of Mythic Entertainment, an EA Studio.

Hello and welcome to Autodesk® Games Insight, our monthly column on Autodesk in the games industry. In this issue, I'd like to introduce the new Autodesk Games group and highlight our middleware solutions Autodesk® Kynapse® and Autodesk® HumanIK® middleware.

## Autodesk Games – Focused on games

Autodesk helps serve the needs of customers worldwide and recently realigned the company with dedicated teams for each industry. With this, the new Autodesk Games group was born. Autodesk Games is a team focused entirely on serving the needs of the games industry through cutting edge middleware technology and powerful game art tools.

Developers trust Autodesk for its 3D packages: Autodesk® Maya®, Autodesk® 3ds Max® and Autodesk® Softimage® software. We expanded on our games offering with middleware, bringing reliable technology to programming teams. Kynapse, a leading artificial intelligence middleware solution, became part of the Autodesk family with the acquisition of Kynogon. This past GDC, we also released a new version of HumanIK, a middleware solution for creating more believable run-time character animation.

## Character-Centric Middleware

Game teams are pushing the boundaries of putting compelling characters in open worlds to tell stories and create new experiences. This presents numerous problems. Art production requirements such as modeling,

sculpting, texturing, shading and animation have increased but this is only one part of the problem. Game teams need run-time technology that is able to bring characters to life in the game through realistic animation performances and decision making capabilities. Autodesk wants to bridge the gap between art and science, and make it much easier for people to create amazing, interactive character performances without technology getting in the way. Our vision is for a unified workflow where your art tools work harmoniously with run-time technology, so that getting to the game is not only quick and painless, but a creatively rewarding process.

## Kynapse – Put the brain in your game

Autodesk Kynapse is an artificial intelligence (AI) middleware solution used in over 80 high-end gaming titles. Kynapse handles dynamic 3D pathfinding, 3D spatial awareness and team coordination. What differentiates Kynapse from other AI middleware is that it helps give characters a highly cognitive understanding of surrounding environments and the ability to interact with it in a dynamic way. Its tool chain is also unique in that it is highly automated and flexible for iterative changes, which means that production teams can work more efficiently.

## HumanIK – Realistic character animation performances

While Kynapse helps give in-game characters artificial intelligence, Autodesk HumanIK helps characters move in a realistic way and interact with the environment. Realistic

“The huge world of Warhammer meant we needed a very robust pathfinding solution. Autodesk Kynapse gave us an algorithmic exploration solution that enabled our AI driven actors to path with the same constraints and freedom as players.”

— Matt Shaw  
Chief Technology Officer  
Mythic Entertainment, an EA

animation performances that would have been extremely difficult through traditional keyframe animation, baking and blending techniques are now easier to achieve with HumanIK. With its procedural motion adaptation technology, characters adapt their motion at run-time responding to the user or the environment. Not only does HumanIK enhance your team's animation in real-time, it also helps solve the problem of animation data complexity. Production teams can focus on key performances with HumanIK working procedurally at run-time, reducing the number of animations necessary for believable results. Animators can now focus on their characters rather than mundane technical work, building compelling stories for the game.

## Conclusion

We are excited about the new Autodesk Games group, supporting developers with 3D software and robust middleware that you can trust. If you have any questions or would like to arrange for an evaluation of our middleware technology, we'd love to hear from you. Please contact us at [middleware@autodesk.com](mailto:middleware@autodesk.com) or visit [www.autodesk.com/games](http://www.autodesk.com/games).



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PS: As we were finishing this column, we were awarded **Best Tools Provider** at the **Develop Awards!**

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