After being introduced to it for my work on *Deus Ex*, I would pick Maya as my 3D software every time. The Maya navigation flow is the best I've ever experienced.

—Jonathan Simard
  Lead Animator
  Eidos-Montreal

Before the beginning.

Eidos-Montreal uses Autodesk software to help revive and revitalize *Deus Ex* video game franchise with *Human Revolution* prequel.

Deus Ex: Human Revolution™. Image courtesy of Eidos-Montreal.

Summary

When *Deus Ex*, a combination of a first-person shooter and a role-playing video game first appeared in 2000, it was already 2050 in the game, with an eerily prescient antiterrorism storyline. By 2003, the game's developer Ion Storm and publisher Eidos Interactive had followed up that success with *Deus Ex: Invisible War*, set in the year 2070, this time for both PC and Microsoft® Xbox® game platforms. Like its predecessor, the game was a success with both gamers and critics.

For *Deus Ex: Human Revolution*, the latest installment in the franchise, production was moved to then-fledgling Eidos-Montreal in 2007. Not about to rest on the laurels of its predecessors, the newest version of the storied franchise is set in 2027, nearly a quarter century before the original game. By going back to before the beginning, Eidos-Montreal served notice of its intention to reboot and revitalize *Deus Ex*, and has done just that. In the process, the multitalented team made intensive use of Autodesk® 3ds Max®, Autodesk® Maya®, and Autodesk® MotionBuilder® software.

The Challenge

"Before we started work on *Human Revolution*, we dedicated ourselves to fully absorbing and understanding the entire *Deus Ex* universe," says David Anfossi, producer at Eidos-Montreal. "We already knew that this was a truly great game, but we were committed to making the game even better. With that in mind, we spent those first months fully immersing ourselves in the game play and storyline. Once we knew it cold, we began thinking about ways to make it better."

Making a great thing even better is a daunting prospect, but the Eidos-Montreal team was nothing if not bold: "We deliberately built a team that seeks out and embraces these kinds of challenges," says Stéphane D'Astous, general manager at Eidos-Montreal. "From the start, Autodesk supported our crazy project. We wanted to deliver the greatest *Deus Ex* experience possible, and Autodesk software, together with Autodesk Consulting and customer support have been with us every step of the way. That has been very gratifying."

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Deus Ex: Human Revolution™. **Image courtesy of Eidos-Montreal.**

The Solution

To achieve a revitalized vision, *Human Revolution* shifts the focus away from terrorism and conspiracy theories and toward the ethical implications of "human augmentation," or the use of biomechanical devices to give humans nearly superhuman powers. In addition, the Eidos-Montreal team has focused on creating the most realistic and compelling human characters that the franchise has yet seen. To do that, the team has relied on the combined capabilities of Autodesk Maya, 3ds Max, and MotionBuilder software.

"Our vision for the game is so ambitious that our biggest challenges have come from getting everything to fit on a disc," says Laurent Labelle, character modeler at Eidos-Montreal. "While most games might have two or three characters on the screen at one time, *Human Revolution* can have as many as 20 unique characters at once. We had to get very creative to ensure we made the most efficient reuse of our texturing and shading and other elements, so we could maintain unique-looking characters without exceeding memory constraints."

Technical art director Frédéric Chappart points to the smoother interoperability and higher-fidelity data exchange made possible by Autodesk® FBX® asset exchange technology as a key factor in enabling the distinctive look of *Human Revolution*. "At the beginning, our game engine was based entirely on Autodesk Maya," says Chappart. "We soon found that we wanted to take advantage of the great talent pool working with 3ds Max and MotionBuilder. With FBX, we have had much more flexibility in creating new modeling, texturing, shading, and lighting techniques that artists can produce and reproduce easily, while still staying within memory limits."

For lead animator Jonathan Simard, the project has opened up a whole new world with Autodesk Maya software: "When I first came to Eidos and to this game, I had no experience with Maya," he says. "Now, after being introduced to it for my work on *Deus Ex*, I would pick Maya as my 3D software every time. The Maya navigation flow is the best I've ever experienced."

The Results

According to everyone involved, bringing *Deus Ex: Human Revolution* to life has been a long, complex, and challenging process. It has also been a successful and rewarding one, thanks in part to Autodesk's consulting and customer support services.
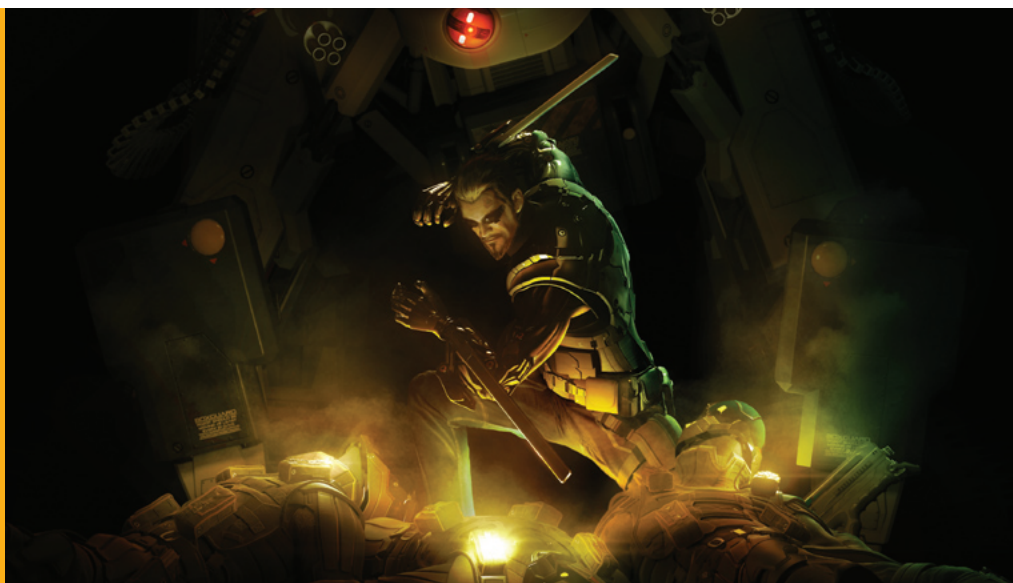
"The Autodesk support has been fantastic," says Chappart. "Among many other things, we needed to develop a complex pipeline for cutscenes, which was far from an easy mandate. We had countless challenges facing us, and Autodesk software and support helped us overcome them all."

To learn more about the game, visit **www.deusex.com**.
To learn more about Autodesk games software, visit **www.autodesk.com/games**.

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