

# The Freedom of Real Time.

Autodesk MotionBuilder 2012 software delivers new tools for virtual movie-making, performance animation and stereoscopic productions plus enhanced interoperability with other products in the Autodesk Entertainment Creation Suites 2012.



We have an excellent pipeline using MotionBuilder for animation. MotionBuilder is simply a brilliant animation tool. Using another package at this point would be like taking my hands away.

— Simon Sherr  
Animation Director  
EA Tiburon



*Dance Central*. Image courtesy of Harmonix Music Systems, Inc.

Create higher-quality character animation in less time with MotionBuilder. With its real-time 3D engine, robust interoperability with leading 3D packages and productivity-oriented workflows, MotionBuilder helps to make high-volume film and game animation pipelines more efficient. MotionBuilder is ideal for motion capture data clean-up and editing, virtual cinematography, pre-visualisation, performance animation and real-time character simulations.

#### Key Features

##### Real-Time Engine

Work interactively with real-time animation and display tools that help maximise speed and efficiency:

- Get instant playback of multiple highly detailed, fully textured characters and their performances, so there's no need to preview or render animations.
- Display advanced CgFX and CG hardware-accelerated shaders in real time.
- Create and trigger animation clips in real time.
- Enjoy time-accurate playback.
- Take advantage of the power of your GPU (Graphical Processing Unit) to calculate skinning and blendshape deformations faster than before.

##### Advanced Character Tools

Take advantage of industry-leading character animation technology to create, edit and re-use performances:

- Pose and animate characters more easily and naturally, with full-body inverse kinematics (FBIK) technology.
- Create FK/IK rigs automatically based on the size and proportions of your character.
- Create and save custom, re-usable rigs.
- Capture and re-use character-independent poses.
- Retarget animation data between characters, even those of different sizes and proportions.
- Define floor and other contact objects and animate feet, toes, hands and fingers against them without interpenetration.



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

For more information about Autodesk MotionBuilder, visit [www.autodesk.co.uk/motionbuilder](http://www.autodesk.co.uk/motionbuilder)



Assassin's Creed Brotherhood. Image courtesy of Ubisoft.

### Unified Non-linear Editing Environment

Use the MotionBuilder Story Tool to re-order and retime your shots on the fly, similar to traditional non-linear video editing:

- Sequence and edit multiple media types in a true non-linear environment.
- Create and edit real-time camera and audio cross-fades from multiple video and audio tracks.
- Create, edit and blend multiple animation tracks and match animation clips.
- Build tracks for camera shots, storyboards, animatics and final edits from track-based projects: time discontinuities, time warping and camera shot looping.
- Enjoy frame-accurate audio playback during both job and shuttle.
- Import and work with video for real-time production previsualisation.

### Real-Time Simulation

Set up a real-time, rigid-body simulation using the 3D objects within your scene:

- Simulate complex interactions between a character and its environment.
- Take advantage of support for real-time collisions to help prevent interpenetration of characters, objects and other scene elements.
- Mix simulation with existing animation data or poses.
- Guide ragdoll simulations between user-defined poses to combine natural-looking movement with precisely positioned keyframes.
- Connect multiple objects together using joints, automatically solving secondary animation.
- Calculate simulations optionally using the Nvidia® PhysX® plug-in.

### Productivity Tools and Workflows

Streamline the animation process with productivity-enhancing tools and workflows:

- Customise layouts, keyboard shortcuts and in-context menus to help match your workflow and personal preference.

- Create quality animatics with OpenGL® hardware rendering.
- Save character animation (and extensions) directly to an Autodesk® FBX® file and re-load them onto target characters with a choice of methods.
- Organise scene objects into groups and sets.
- Import and export multiple files: motion capture data for batch processing.
- Use unlimited animation takes to iterate and compare multiple animation versions in a single scene.
- Clean up, edit and process motion capture data with the powerful MotionBuilder toolset.

### Seamless Pipeline Integration

MotionBuilder integrates seamlessly into your pipeline enabling you to use it in tandem with certain other industry-leading 3D applications, proprietary software and animation input devices:

- Customise and extend MotionBuilder via the C++ Open Reality® SDK (Software Developer Kit) and automate repetitive tasks with the powerful Python® scripting environment.
- Use the industry-standard Qt UI toolkit to help build your Open Reality SDK plug-ins.
- Exchange data with Autodesk® Maya® 2012, Autodesk® 3ds Max® 2012, Autodesk® Mudbox™ 2012 and Autodesk® Softimage® 2012 and certain other 3D authoring packages via the Autodesk® FBX® 2012 asset-technology format.
- Take advantage of direct support for asset management systems.
- Stream in live, device-captured data and apply it to a full-resolution character or record it in real-time with support for multiple built-in, third-party or custom devices simultaneously in a scene.
- Import and export Biovision (.BVH), Acclaim (.ASF/.AMC), Motion Analysis (.HTR/.TRC) or Vicon (.C3D) motion capture data formats.

### New in MotionBuilder 2012

MotionBuilder 2012 software delivers new tools to better facilitate virtual movie-making and performance animation productions:

- Create and view stereoscopic content in MotionBuilder with the new in-viewport stereoscopic display and camera rig. Camera data can be exchanged with Maya, Autodesk® Flame® 2012 and Autodesk® Smoke® 2012 software via FBX 2012.
- Enjoy a more seamless workflow that uses multiple Autodesk Entertainment Creation Suite products with new single-step interoperability between MotionBuilder 2012, Maya 2012 or 3ds Max 2012. Also achieve greater consistency thanks to the enhanced UI scheme of MotionBuilder 2012.
- Enjoy some of the best features from the f-curve editors within each of the products in the Autodesk® Entertainment Creation Suites 2012, combined into a toolset that offers more consistent functionality and terminology so you can switch between products more easily.
- Working with characters in MotionBuilder 2012 and Maya 2012 is now easier with an enhanced interface, unified solver and more consistent workflows for HumanIK® technology.
- Stream reference video from a motion capture session directly into MotionBuilder and record simultaneously with the motion capture data on a per-take basis.
- Deal more easily with multiple animation variations that each have associated audio, with the ability to handle separate audio files per take.

### Autodesk Entertainment Creation Suites 2012

The Entertainment Creation Suites 2012 deliver powerful 3D modelling and animation technology in a choice of software suites at a significant cost saving\*. The Standard suite includes 3ds Max 2012 or Maya 2012 together with MotionBuilder 2012 and Mudbox 2012 digital sculpting and 3D painting software. With the Premium option, get additional access to the innovative creative toolsets in Softimage. To learn more, visit [www.autodesk.co.uk/entertainmentcreationsuites](http://www.autodesk.co.uk/entertainmentcreationsuites).

\* Savings based on USD SRP. International savings may vary.

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