

# SmartBody

SmartBody is a character animation library that provides synchronized locomotion, steering, object manipulation, lip syncing, gazing and nonverbal behavior in real time. It is written in C++ and can be incorporated into most game and simulation engines. SmartBody is a Behavior Markup Language (BML) realization library that transforms BML behavior descriptions into realtime animations. It runs on Windows, Linux, MacOS as well as the iOS and Android devices.

SmartBody is integrated with a variety of game engines. Within ICT, the main target platform is [Unity 3D](#) for Windows. SmartBody integration is included in the [vhAssets](#) Unity package.

For more information on SmartBody, see the dedicated [SmartBody](#) website. This site contains a variety of resources, including a detailed [manual](#).

Quick facts:

- Location: core/smartbody
- Language: C++/Python
- Distribution: source
- Platform(s): Windows, Linux, MacOS, Android, iOS
- Main paper: "Building a Character Animation System", Ari Shapiro. Motion in Games 2011, Edinburgh, UJ, November 2011 [link](#). See the [publicatio ns](#) section for more detailed ones.