



Humans : DI-Guy Human Simulation Software

DI-Guy SDK

DI-Guy Software Development Toolkit (SDK) is the core of the DI-Guy product line, providing realistic human characters to real-time visual simulations. DI-Guy characters move realistically, respond to simple high-level commands, and travel throughout the environment as directed. DI-Guy characters make seamless transitions from one activity to the next, moving naturally like real people. Whether you are a seasoned visualization professional or a fledgling start-up, the DI-Guy SDK will simplify and speed your task of adding realistic life-like humans to real-time 3D simulators, saving you time and money.

A Wide Range of Models and Movement Content

DI-Guy SDK includes models and behaviors for hundreds of human characters that represent people from all walks of life, including:

- Soldier characters with an extensive array of uniforms, weapons, and behaviors
- Flight deck crew (LSE, LSO, etc.)
- Policemen, firemen, first responders equipped with gas masks and other hazardous (MOPP) gear
- Civilian suspects and enemy combatants
- A wide range of civilian men, women, and children from a variety of cultural and ethnic groups
- Divers, dancers, street sweepers, people using wheelchairs, cyclists, commuters
- Animals including horses, mules, dogs, cows, kangaroos, and chickens

DI-Guy also includes hundreds of vehicles and props to support your human performances.

High-Performance, Real-Time Motion Engine

DI-Guy's advanced motion engine ensures that each model's behavior is lifelike and realistic. DI-Guy automatically creates natural-looking smooth behavior for its more than 2,000 motions and transitions, even when a character changes behavior from one action to the next.

The SDK allows you to work at a high level concentrating on telling characters where to go and what to do, while the software and content handles critical low-level details such as:

- Joint angle control and kinematics
- Smooth and realistic motion generation derived from motion capture
- Graphics hierarchy management
- Load management
- Realistic Geometry and Texture files

Because of DI-Guy's high-level control, you can concentrate on your application rather than on the time-consuming details of low-level animation.

Built to Run in Your Environment

DI-Guy SDK works out-of-the box with OpenGL, DirectX, OpenSceneGraph (OSG), and Vega Prime, as well as MAK's other products. DI-Guy also works with a number of third-party rendering products including Rockwell Collins EPX, Quantum3D Mantis, FlightSafety VITAL X Lockheed Martin SEView, URS X-IG, and DiamondVisionics Genesis RTX. Interested in using DI-Guy in a simulation environment not on this list? The DI-Guy Graphics API module allows you to integrate with whatever rendering environment you choose.



- FEATURES**
- UNIQUE CHARACTER APPEARANCES
 - MULTIPLE TEXTURES FOR HEIGHTENED REALISM
 - CUSTOMIZABLE TO ANY RENDERING SOLUTION
 - CUSTOMIZABLE BEHAVIORS, INCLUDING FORMATIONS, GESTURES, AIMING, GAZING, DYNAMIC STANDING
 - GRAPHIC AND MOTION LEVEL-OF-DETAIL SWITCHING
 - COMES LOADED WITH CONTENT

- USE CASES**
- GROUND AND URBAN COMBAT TRAINING
 - MISSION PLANNING AND AFTER-ACTION REVIEW/DEBRIEFING
 - PEACEKEEPER TRAINING
 - LAW-ENFORCEMENT TRAINING
 - DRIVING SIMULATORS
 - URBAN VISUALIZATION
 - ARCHITECTURAL WALK-THROUGHS
 - DISASTER EVACUATION PLANNING

DI-Guy Motion Editor

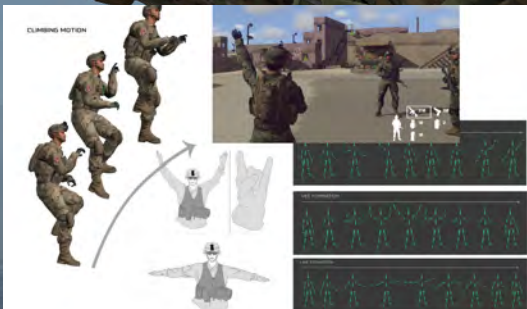
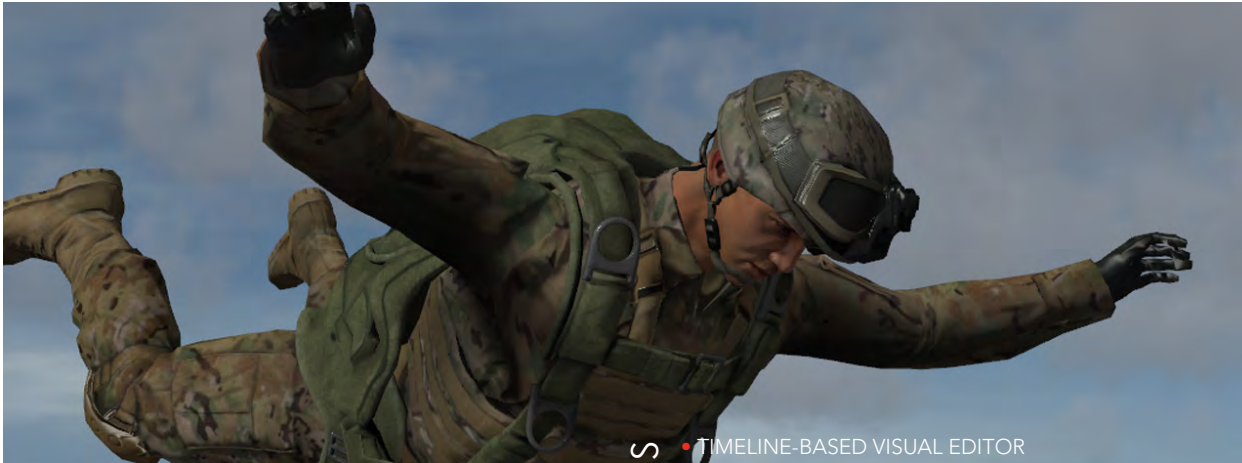
DI-Guy Motion Editor lets you add and extend motion behaviors for DI-Guy SDK and DI-Guy Scenario characters. Create motions by modifying and combining motions sourced from the entire DI-Guy library or by importing motions via the popular BVH motion file format.

Edit and Review Motion Data

The DI-Guy Motion Editor features a timeline-based editing tool for editing 3D human motion data and immediately reviewing the results. The editor features a number of blending and interpolation functions for rapid motion development. Characters are displayed in a real-time 3D window and reflect the latest motion changes from the timeline.

Integrate and Create New Motions

Using the Action Table Editor, users can integrate new motions into the DI-Guy motion engine and even create new actions. Once integrated, these new motions and actions are available throughout DI-Guy as if those motions were shipped with the product. All changes are stored in the custom directory, so custom motions can be easily propagated to other DI-Guy-enabled applications.



FEATURES

- TIMELINE-BASED VISUAL EDITOR
- WORK WITH SINGLE FRAME POSES AND MULTI-FRAME MOTIONS
- MULTI-TRACK DESIGN SUPPORTS DIFFERENT JOINT VARIABLES AS SPECIFIED BY USER
- SUPPORTS INDUSTRY-STANDARD BVH MOTION CAPTURE FORMAT IMPORT
- OUTPUT INTEGRATES EFFORTLESSLY ACROSS ENTIRE DI-GUY SOFTWARE SUITE
- EXERCISE NEW MOTIONS IN CONTEXT OF OTHER MOTIONS FOR TRANSITION MOTION DEVELOPMENT



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