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Template based procedural rigging of quadrupeds with custom manipulators   (Conference Paper)

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Abstract   ⌄ View references (15)

Character rigging is a process of endowing a character with a set of custom manipulators and controls making it easy to animate by the animators. These controls consist of simple joints, handles, or even separate character selection windows. This research paper present an automated rigging system for quadruped characters with custom controls and manipulators for animation. The full character rigging mechanism is procedurally driven based on various principles and requirements used by the riggers and animators. The automation is achieved initially by creating widgets according to the character type. These widgets then can be customized by the rigger according to the character shape, height and proportion. Then joint locations for each body parts are calculated and widgets are replaced programmatically. Finally a complete and fully operational procedurally generated character control rig is created and attached with the underlying skeletal joints. The functionality and feasibility of the rig was analyzed from various source of actual character motion and a requirements criterion was met. The final rigged character provides an efficient and easy to manipulate control rig with no lagging and at high frame rate. © 2013 IEEE.

Author keywords

Animation   Character Rigging   Procedural Rigging   Quadruped Rigging

Indexed keywords

Engineering controlled terms: Computer science   Manipulators

Character motion   Character Rigging
Fully operational   High frame rate
Procedural Rigging
Quadruped Rigging
Requirements criterion   Skeletal joints

Engineering main heading: Animation

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