



Open Source Multibody Aeroelastic Modeling, Simulation, and Video Rendering

AHS International Forum
Grapevine, Texas

28 May 2009

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www.baldwintechology.com



Outline of presentation

- Introduction to the work that was completed
- Motivation video (2 minutes)
- Demonstration video (16 minutes)
- Q & A

Websites containing the free software:

- MBDyn: <http://www.aero.polimi.it/mbdyn/>
- Blender: <http://www.blender.org/>
- Scripts: <http://sourceforge.net/projects/blenderandmbdyn/>

Video tutorials are at <http://www.baldwintechology.com/>



Summary

- MBDyn is free multibody dynamics code
- Blender is free 3D modeling and rendering code
- BTC produced and publicly released:
 - 5000+ LOC in Python language to join these two codes
 - An improved “deformable joint” element in C++ (an example of MBDyn extensibility)
 - Video tutorials with example model files

The conference paper documents the Python script architecture and functionality. The scripts are extensible by any user, and are maintained by BTC on sourceforge.net



Videos



- Motivation Video
- Demonstration Video

See <http://www.baldwintechology.com/> to view these videos.



Question prompts

- How much does it cost?
- How does one learn how to use it?
- How do I know it is right for my project?
- Why is BTC publicly releasing this at no cost?
 - Hints:
 - Independent verification and validation
 - Functionality growth



Question prompts

- How much does it cost? **free**
- How does one learn how to use it? **tutorials**
- How do I know it is right for my project?
 - **If after building your model you need a new feature, just add it.**
- Why is BTC publicly releasing this at no cost?
 - Hints:
 - Independent verification and validation
 - Functionality growth