

Other Products

The activity continued dissemination of computational models (and data) of the knee as a resource. For more details on model sharing, please refer to progress on Resource Sharing. The activity also resulted in generation and dissemination of various documents. These include various user documentation and mature specifications for development of knee joint models. All such products are listed in the "Documents" section of the project website at <https://simtk.org/home/openknee>. The information is disseminated using the Creative Commons Attribution-ShareAlike 3.0 Unported (CC BY-SA 3.0) license, see <http://creativecommons.org/licenses/by-sa/3.0/>). This license allows anyone to share (to copy, distribute, transmit the work), to remix (to adapt the work), and to make commercial use of the work under the following conditions: i) attribution – one must attribute the work in the manner specified by the author or licensor (but not in any way that suggests that they endorse you or your use of the work); ii) share alike – if one alters, transforms, or builds upon this work, one may distribute the resulting work only under the same or similar license to this one. This licensing scheme provides utmost dissemination and promote open science. It also does not restrict any type of use, academic or commercial.

- Developer Documents:
 1. Roadmap - Wiki page providing the roadmap for development of Open Knee(s).
<http://wiki.simtk.org/openknee/Roadmap>
Last Update: Dec 21, 2013
 2. Specifications: Specimens - Wiki page summarizing desired properties of target Open Knee(s) specimens.
<http://wiki.simtk.org/openknee/Specifications/Specimens>
Last Update: Dec 21, 2013
 3. Specifications: Mechanical Joint Testing - Wiki page summarizing procedures to characterize mechanical response of tibiofemoral and patellofemoral joints of Open Knee(s) specimens.
<http://wiki.simtk.org/openknee/Specifications/ExperimentationJointMechanics>
Last Update: Jan 19, 2014
- User Documents:
 1. Open Knee Scientific Overview - Presentation reflecting the motivations for and progress and future of Open Knee development.
Citation: Erdemir A. Open Knee: A Three-Dimensional Finite Element Representation of the Knee Joint, September 10, 2013.
https://simtk.org/websvn/wsvn/openknee/_gen1/doc/scientific_overview.pdf
Last Update: Sep 10, 2013
 2. Open Knee User's Guide - Instructions to run and edit the finite element representation of the knee joint.
Citation: Erdemir A. and Sibole S. Open Knee: A Three-Dimensional Finite Element Representation of the Knee Joint, User's Guide, Version 1.0.0, December 17, 2010.
https://simtk.org/websvn/wsvn/openknee/_gen1/doc/guide.pdf
Last Update: Dec 17, 2010

The team follows an open science approach; many project activities can be viewed publicly in the development wiki at <http://wiki.simtk.org/openknee>. All such information is disseminated using the Creative Commons Attribution-ShareAlike 3.0 Unported (CC BY-SA 3.0) license, see <http://creativecommons.org/licenses/by-sa/3.0/>). Significant wiki pages are listed below.

1. Specifications – Wiki page listing all specifications under development including those related to anatomical imaging of the knees, mechanical testing of the tibiofemoral and patellofemoral joints and individual tissues, and different components of modeling and simulation steps. This documentation illustrates the steps in building computational models of musculoskeletal joints. In this regard, these specifications can enable others' to implement modeling and simulation procedures and can be used for training of engineers:
<http://wiki.simtk.org/openknee/Specifications>
2. Recurring Meetings – Minutes of meetings between team members and collaborators:
<http://wiki.simtk.org/openknee/RecurringMeetings>
3. Specimen information – Wiki pages relevant to characteristics of acquired knee specimens:
 - <http://wiki.simtk.org/openknee/oks001>
 - <http://wiki.simtk.org/openknee/oks002>
 - <http://wiki.simtk.org/openknee/oks003>
4. Specifications for activities by collaborating teams at the University of Utah and at Stanford University:
 - FEBio Features – Wiki page providing specifications for features to be implemented in FEBio, a publicly accessible software package for finite element analysis in biomechanics. The *in situ* strain feature has been implemented, testing and dissemination are in progress.
<http://wiki.simtk.org/openknee/Specifications/FebioFeatures>
 - Cloud Computing Prototype – Wiki page providing specifications to extend capabilities of Simtk.org by implementing a cloud computing prototype. A working prototype has been built; testing is in progress.
<http://wiki.simtk.org/openknee/Specifications/CloudComputingPrototype>