

Thomas Krijnen

<http://thomaskrijnen.com/#home>

Doctoral candidate, Eindhoven University of Technology, NL.

Maintainer and initiator of Ifc OpenShell, a leading open source software library for IFC building models.

Developed browser-based visualization of IFC building models as a Senior Software Engineer at Gehry Technologies in Los Angeles, CA.

Established novel standards to enable scalability and interoperable use of IFC building models up to gigabytes in size and integration of building models and point clouds.

Selected journal publications

Krijnen, T.F. & Beetz, J. (2017). *An IFC schema extension and binary serialization format to efficiently integrate point cloud data into building models*. *Advanced Engineering Informatics*, 33, 473-490.

Pauwels, P., Krijnen, T., Terkaj, W. & Beetz, J. (2017). *Enhancing the ifcOWL ontology with an alternative representation for geometric data*. *Automation in Construction*, 80, 77-94.

El-Diraby, T., Krijnen, T. & Papagelis, M. (2017). *BIM-based collaborative design and socio-technical analytics of green buildings*. *Automation in Construction*, 82, 59-74.

Oldfield, J., van Oosterom, P., Beetz, J. & Krijnen, T.F. (2017). *Working with Open BIM Standards to source legal spaces for a 3D Cadastre*. *ISPRS International Journal of Geo-Information*, 6(11):351

Hornikx, M.C.J., Krijnen, T.F. & van Harten, L. (2016). *OpenPSTD : The open source pseudospectral time-domain method for acoustic propagation*. *Computer Physics Communications*, 203, 298-308.

Wang, T., Krijnen, T.F. & de Vries, B. (2016). *Combining GIS and BIM for facility reuse - a profiling approach*. *Research in Urbanism Series*, 4, 185-204.

van Berlo, L.A.H.M. & Krijnen, T.F. (2014). *Using the BIM collaboration format in a server based workflow*. *Procedia Environmental Sciences*, 22, 325-332.

Work experience

2014-	Eindhoven University of Technology, The Netherlands	Doctoral Research. Large scale heterogeneous building data platforms
2014-	Founder AECgeeks	Research and development for open source BIM tools and consultancy for international research projects
2012-2014	Gehry Technologies	Senior Software Engineer. Development of an online collaboration platform for the AEC industry. http://www.gteam.com
2012	Eindhoven University of Technology, The Netherlands	Valorization of a model for the propagation of sound. http://openpstd.org

2012 University of Toronto, Canada BIM 2.0. Research and implementation of a discourse and issue tracking system within the IFC file format

Initiatives

2009 <http://archikey.com> An open, online, semantical archive of the built environment

2011 <http://IfcOpenShell.org> An open source IFC software library and geometry engine

2012 <http://explauralisation.org> Tools and methods for qualitative simulation of aural architecture