



AAMKS – OPEN SOURCE, WEB-BASED PLATFORM FOR ASSESSING THE FIRE SAFETY OF HUMANS IN BUILDINGS

T. Drzymala¹, M. Banas¹

¹ The Main School of Fire Service (MSFS), Poland

e-mail: tdrzymala@sgsp.edu.pl, e-mail: mbanas@sgsp.edu.pl

Aamks is an open source, web-based platform for assessing the fire safety of humans in buildings. Aamks runs hundreds of fire simulations (CFAST) and evacuation simulations (Aamks.Evac) and then evaluates the results. In each simulation humans are moving across the building and are affected by fire and smoke.

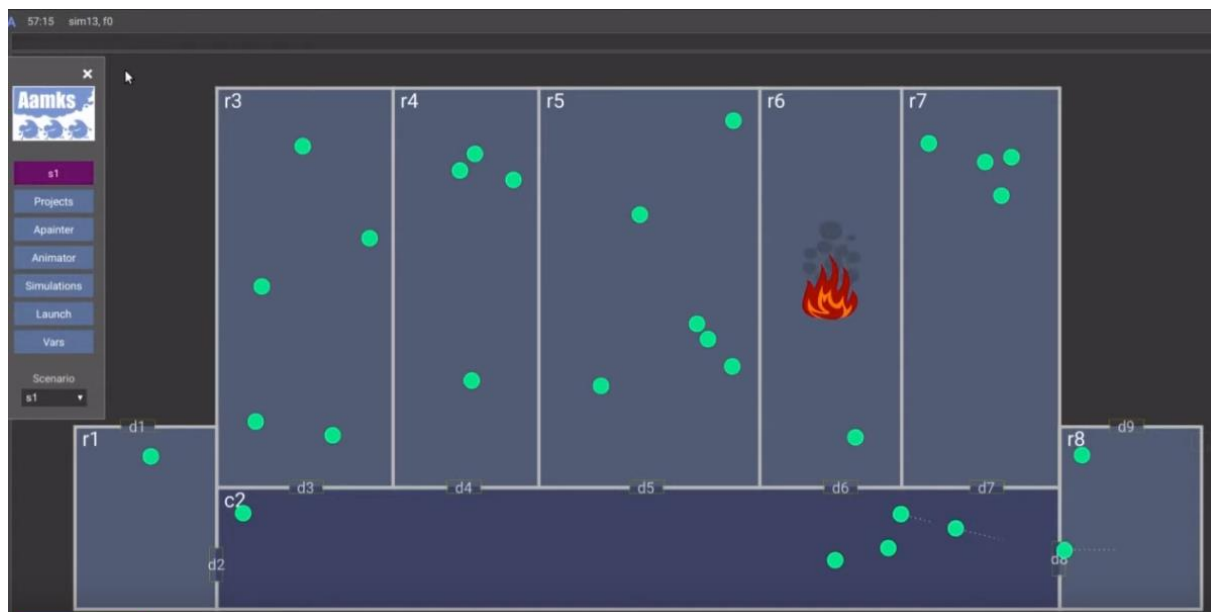


Fig. 1. Graphic visualization of the evacuation

Source: AAMKS

AAMKS performs a stochastic analysis of life safety in building fires using deterministic models for fire and evacuation and stochastic sampling of the uncertain input parameters in day-to-day work.

AAMKS core developers:

- [Adam Krasuski](#) (github link);
- [Karol Kreński](#) (github link);
- [Mateusz Fliszkiwicz](#) (github link).

Contributors:

- Andrzej Krauze;
- Hubert Zawistowski;
- Mateusz Mackiewicz;
- Mateusz Zimny;
- Simo Hostikka;
- Stanisław Łazowy;
- Wojtek Kowalski.

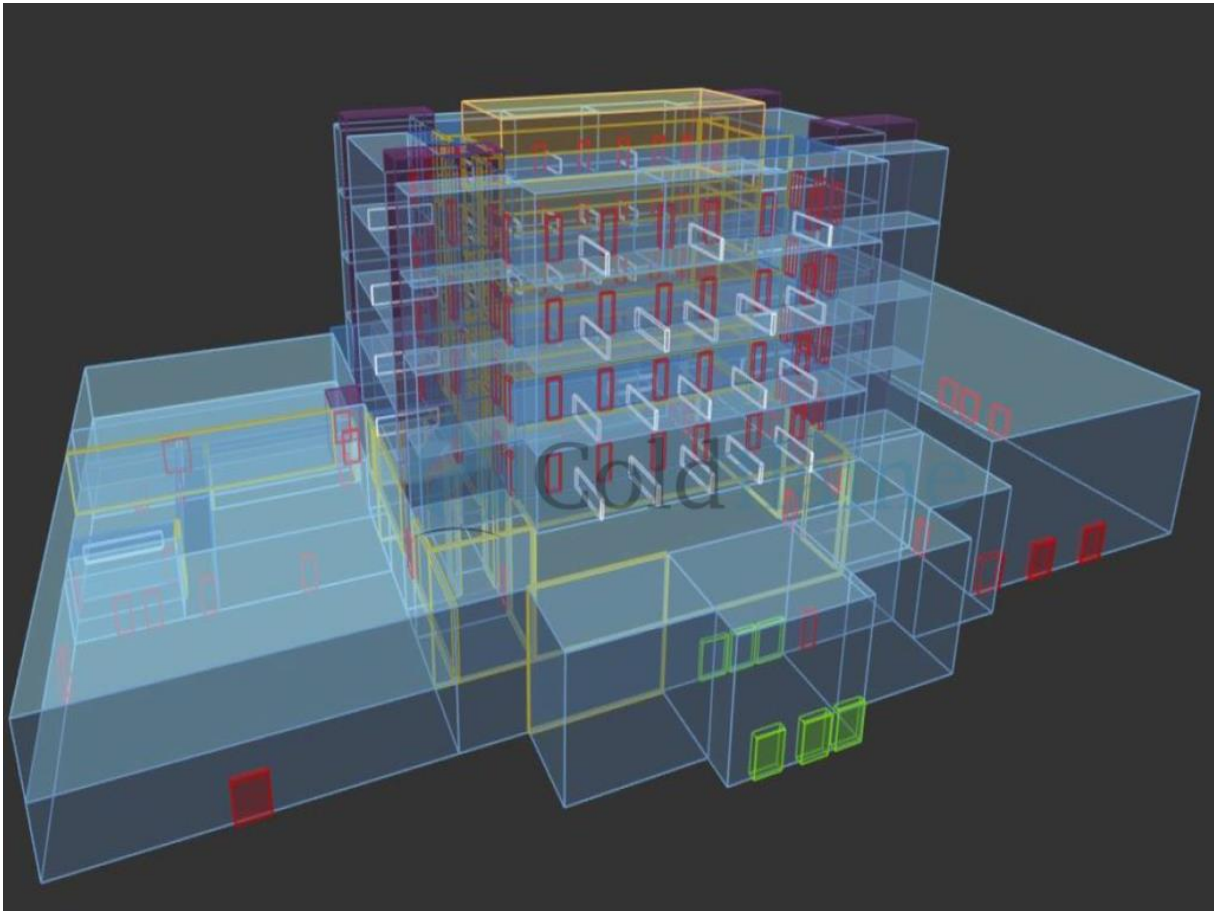


Fig. 2. GUI
Source: AAMKS

AAMKS is an open source software released under the GPL license.

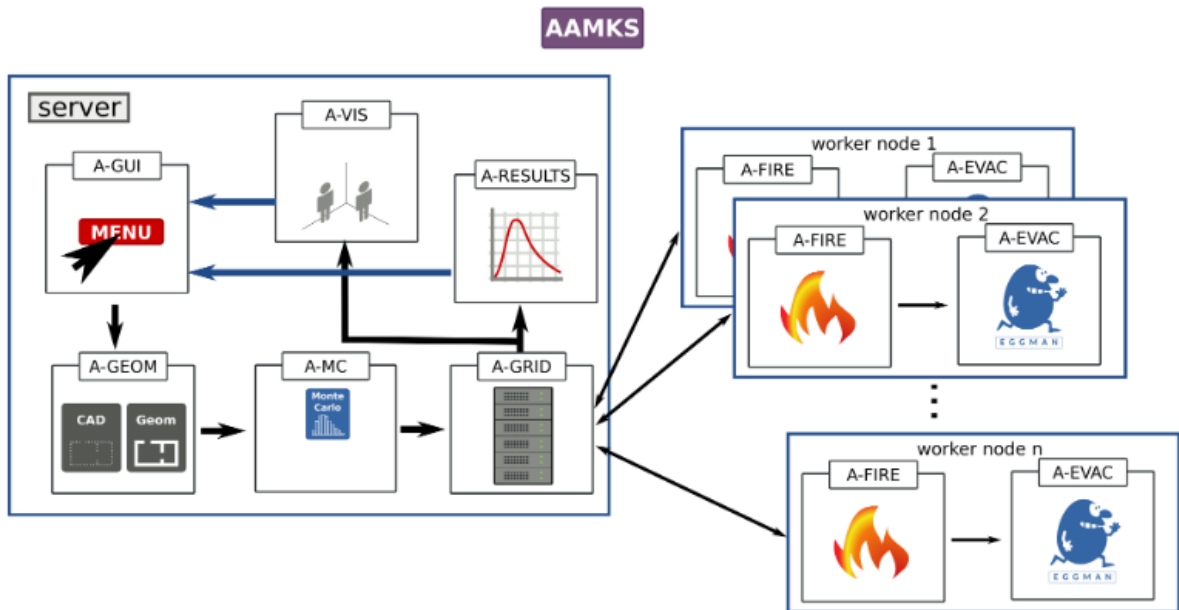


Fig. 3. General overview of the Aamks model and workflow
Source: AAMKS



For more information please see:

- Krasuski, A. & Pecio, M. Application of an Integrated Risk Assessment Software to Quantify the Life Safety Risk in Building during a Fire. MATEC Web Conf. 247, 00011, 1–8 (2018);
- Krasuski, A. & Kuziora, Ł. Comparison of Risk Categorization Methods in a Multisimulation Framework. MATEC Web Conf. 247, 00018, 1–8 (2018);
- Kreński, K. & Fliszkiewicz, M. Aamks: the platform for assessing fire safety of humans in buildings. MATEC Web Conf. (2018). doi:10.1051/mateconf/201824700001;
- Kubica, P. & Wdowiak, T. The use of multisimulation in determining fire hazards in buildings covered by expertise. MATEC Web Conf. (2018). doi:10.1051/mateconf/201824700061;
- Krasuski, A. Multisimulation: Stochastic simulations for the assessment of building fire safety. (The Main School of Fire Service, 2019)
- Krasuski, A. & Hostikka, S: Aamks – Integrated Cloud-based Application for Probabilistic Fire Risk Assessment. Proceeding of Interflam 2019 conference;
- <https://aamks.szach.in/?node=about>;
- AAMKS YouTube channel:
<https://www.youtube.com/channel/UCKhHI32-1TQL6AKQ4IdDRLg>.