**CD++ Model Data Form**

Title: Modelling a Major Maritime Disaster with DEVS

Type: DEVS Model

Acronym/Short name: MAJMAR in DEVS

Purpose for which Developed: SYSC 5104 assignment 1 submission

Other Applications for which it is Suitable: Testing benchmark evacuation policies based upon triage category

Date Developed/Implemented: Feb. 2024

Domain: Analysis

Current Version 1.0

URL: <https://github.com/HazelGriffith/MAJMAR_DEVS/tree/main>

Description: A model of the evacuation of people from a major maritime disaster. There are three coupled models that represent the Evacuees, Helicopters used for the evacuation, and the Evacuation Site where evacuees and helicopters are coordinated and the next people to evacuate are chosen based upon a triage policy. The number of helicopters and evacuees can vary, but it currently adheres to the characteristics of a particular paper about modelling a major maritime disaster.

Links to Related Documents:

Short Title: Modelling a Major Maritime Disaster using the Universal Framework for Decisions under Uncertainty

URL: <https://www.sciencedirect.com/science/article/pii/S0925753523003211?ssrnid=4515043&dgcid=SSRN_redirect_SD>

Description: In this paper, researchers develop a model using the universal framework for decisions under uncertainty to model a major maritime disaster. The disaster is of many people being evacuated from a place along the northwest passage by helicopter because large aircraft cannot land nearby. As so few people can be carried away at a time the evacuees are triaged and chosen for evacuation based upon their triage category to save the largest number of people. In the paper, they complete several case studiies using different evacuation policies and the presence of a coast guard ship that can provide medical aid at the evacuationn site.

Keywords: Discrete-event, Simulation, Modelling, DEVS

Developer:

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