# Computer Simulation In Logistics With Visual Basic Application

Computer Simulation and Gaming in Logistics Research
A Ten-year Progress Report
A User's Guide for LOGATAK. A Simulation Model to Analyze Logistic Network Distribution and Interdiction
Analysing Amphibious Logistics Capabilities in the Joint Theater Level Simulation (JTLS)
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Amphibious Logistics Support Ashore (ALSA) (A Computer Simulation).
Computer Simulation and Gaming in Logistics Research
A New Approach to Computer Modeling and Simulation for Logistics Systems Analysis
Managing Reverse Logistics Using System Dynamics: A Generic End-to-end Approach
TranSopot 2017 Conference
International Arrivals Building, Honolulu International Airport
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Theory and Fundamentals
An Analysis of the Cost and Benefit Associated with the Principle of Postponement-speculation
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Logistics Control Facility
Modeling and Simulation of Logistics Flows
Simulation of a Multi-echelon Logistics Support System
Design and Simulation of RFID-Enabled Aircraft Reverse Logistics Network Via Agent-Based Modeling



## PARSONS SHAYLEE

Computer Simulation and Gaming in Logistics Research Springer Science & Business Media
The document covers a technique which was developed to satisfy the need for a model of 'weapon system logistics.' It is a series of four computer simulation models designed to examine the hardware-configuration/operations/logistics-support interactions of a variety of weapon systems in a single-base or multibase environment. (Author).

*A Ten-year Progress Report* Springer
This research investigates the effect of Lean Logistics proposals on the current Air Force reparables pipeline. Lean Logistics proposes reducing reparable asset levels at operating bases, reducing transportation time between bases and depots, and reducing depot repair times. Computer simulation is used as a tool to perform a 3X3X3 full factorial experiment to determine the effects of the Lean Logistics proposals on fully mission capable aircraft and transportation cost. Results indicate that lean Logistics outperforms the current reparables pipeline in term of fully mission capable aircraft. A cost benefit analysis is performed to determine the trade offs between transportation costs and

asset outlays. Logistics management, Pipeline, Inventory, Transportation, Repair.

**A User's Guide for LOGATAK. A Simulation Model to Analyze Logistic Network Distribution and Interdiction** John Wiley & Sons

This dissertation, "A Hybrid Evolutionary Algorithm for Optimization of Maritime Logistics Operations" by Yin-cheung, Eugene, Wong, □□□, was obtained from The University of Hong Kong (Pokfulam, Hong Kong) and is being sold pursuant to Creative Commons: Attribution 3.0 Hong Kong License. The content of this dissertation has not been altered in any way. We have altered the formatting in order to facilitate the ease of printing and reading of the dissertation. All rights not granted by the above license are retained by the author. DOI: 10.5353/th_b4452676 Subjects: Evolutionary programming (Computer science) Evolutionary computation Artificial intelligence Immunocomputers Immune system - Computer simulation Shipping Logistics

*Analysing Amphibious Logistics Capabilities in the Joint Theater Level Simulation (JTLS)* Diplomarbeiten Agentur

Volume 3 begins with an introduction to which are added four chapters focused on modeling and flow simulation in an environment in 2 or 3 dimensions (2D or 3D). They deal with different cases taken from situations found in the field. A conclusion comes close this third book: - The different software used in this third volume; - Computer simulation of discrete flows; - Mixed flow simulation; - Flows in 3D and the evacuation simulation; - Flows in 3D for conveying and storage The conclusion discusses the future developments of the software and their integration into society. At the end of each volume is a bibliography and a list of web links. There is also a glossary explaining some abbreviations, acronyms and some very specific terminology of logistics and operations research.

Assessing the Impacts of Lean Logistics Infrastructures on Strategic Airlift Capability Praeger Pub Text

Traditionally, there have been two primary types of simulation textbooks: those that emphasize the theoretical (and mostly statistical) aspects of simulation, and those that emphasize the simulation language or package.Simulation Modeling and Arena, Second Edition blends these two aspects of simulation textbooks together while adding and emphasizing the art of model building. This book features coverage of statistical analysis, which is integrated with the modeling to emphasize the importance of both topics. The Second Edition features new topical coverage, including static simulation and spreadsheet simulation; how simulation works and why it matters; and expanded use of Arena, specifically the use of strings in models, the Atribute module, the OnChange block, visual dashboards, and an introduction to 3-D animation concepts. In addition, a running example is presented throghout each chapter to prepare readers to perform a realistic case study based on the IIE/RA contest problem. The new edition also contains expanded topical coverage on: simulation clock within discrete event modeling simulation; statistical modeling concepts with the theoretical basis and equationsneeded to perform the analysis by hand; increased use of Arena Run Controller, modeling non-stationary arrival processes; and the Wait-Signal constructs.

Discrete and Continuous Flows in 2D/3D Elsevier

In support of a request from the Air Force Logistics Command, a model of the Advanced Logistics System (ALS) CYBER 73 Batch processing system was developed. The initial specification required that this model allow changes to the magnetic tape unit configuration and to all essential installation parameters. In order to determine the best approach, the various computer system modeling techniques are first surveyed. Then, based on the modeling goals and requirements, a queue level simulation model is selected as the best approach. The basic features of the CYBER 73 computer system are discussed and a description of job movement through the system is given. This discussion is used to describe the various system queues and the SCOPE integrated scheduler. The algorithms used in the model are then developed and the accuracy of the model verified by comparison against data obtained from the ALS CYBER 73 batch system during test runs of a typical jobmix. The verification process showed that all of the original design objectives were met, although several areas of possible improvement to the model are indicated and discussed.

Advanced Systems Modeling and Simulation Computer Simulation in LogisticsWith Visual Basic Application

The report discusses the significant accomplishments of Project TRANSIM at the University of California, Los Angeles, during the ten-year period ending December 31, 1973. The research and development program is an extension and expansion of earlier work at UCLA and concentrated on further development of general-purpose computer simulation as a versatile and effective analytical tool and expanding its application in an increasing number of Navy management problem areas. Specific coverage is given to application to: Marine port systems; amphibious operations; shipyard operations; ship systems; integrated logistics support; naval supplies distribution; ship acquisition project management; ship repair/modernization/overhaul planning project management; naval facilities project management.

Project TRANSIM John Wiley & Sons

As legislations have become stricter and the competition on markets is getting stronger, companies facing return flows strive for the implementation of efficient and cost-effective reverse logistic procedures. At the same time, when managing reverse logistics, they are not only confronted with a high degree of uncertainties concerning the quality, quantity and timing or the product returns, but also with a dynamically changing environment. Various aspects, such the increasing amount of return flows, shorter repair and lead times as well as increasing disposal costs, affect the reverse logistic system and need to be managed proficiently. Additionally, handling product returns requires supportive computer aided modelling tools that are capable of handling the dynamic and complex characteristics of the reverse logistic system and allow an improved estimation of the impact of a changing environment and management decisions. For the purpose of this study, the system dynamics modelling approach has been identified as particularly suitable for illustrating the system in question with a special focus on understanding the dynamic behaviour over time. A generic system dynamics model has been exemplarily created and simulated using the program iThink. The model comprises end-to-end processes of the main reverse logistic activities related to

customer returns and has been used for studying the strategic design and optimization of the reverse logistic system. In order to consider relevant uncertainties as well as environmental concerns and economic efficiency, representative policies have been applied where, inter alia, with the help of the graphical illustration of the processes, effective strategies could be implemented. A general evaluation of the system dynamics methodology has revealed the significant advantages of using supportive modelling techniques for strategic decision making. Particularly for complex systems that change over time, such as reverse logistics, applying appropriate computer aided modelling tools in order to anticipate the overall effect on processes caused by varying surroundings has proven essential. An effective utilization of system dynamics may significantly reduce the forecasting and planning risks within individual frameworks, such as capacity planning. Moreover, the generic approach allows the application of the model to any other industry that is characterized by uncertain capacity utilization and varying technical, economical and legal conditions.
Diplomica Verlag
Volume 1 presents successively an introduction followed by 10 chapters and a conclusion: A logistic approach an overview of operations research The basics of graph theory calculating optimal routes Dynamic programming planning and scheduling with PERT and MPM the waves of calculations in a network spanning trees and touring linear programming modeling of road traffic
**Simulation of Reverse Logistics Network Designs for Computer Recovery** Springer Nature
This book presents the proceedings of The 2020 International Conference on Machine Learning and Big Data Analytics for IoT Security and Privacy (SPIoT-2020), held in Shanghai, China, on November 6, 2020. Due to the COVID-19 outbreak problem, SPIoT-2020 conference was held online by Tencent Meeting. It provides comprehensive coverage of the latest advances and trends in information technology, science and engineering, addressing a number of broad themes, including novel machine learning and big data analytics methods for IoT security, data mining and statistical modelling for the secure IoT and machine learning-based security detecting protocols, which inspire the development of IoT security and privacy technologies. The contributions cover a wide range of topics: analytics and machine learning applications to IoT security; data-based metrics and risk assessment approaches for IoT; data confidentiality and privacy in IoT; and authentication and access control for data usage in IoT. Outlining promising future research directions, the book is a valuable resource for students, researchers and professionals and provides a useful reference guide for newcomers to the IoT security and privacy field.
*Computer Simulation Model for Traffic Flow Analysis* Springer Science & Business Media
One of the primary tools available to a Unified Commander-in-Chief (CINC) for training his staffs in execution of their joint plans a command post exercise supported by a computer simulation. This is commonly referred to as a Computer Aided Exercise (CAX). The computer simulation used for this thesis is the Joint Theater Level Simulation. Currently, the after-action reviews (AARs) are mostly subjective in nature with very little quantitative

analysis. The objective of this thesis is to develop a methodology for quantitatively evaluating the data produced by the computer simulation and presenting this analysis graphically. The methodology is based on the Universal Joint Task List which is a comprehensive listing of all joint tasks pertaining to the Armed Forces of the United States. These joint tasks provide the critical events that are analyzed during the CAX. The graphs display a casual audit trail for the critical events of the CAX. The focus of this thesis is Strategic Task Four, Theater Logistics, with specific analysis of amphibious logistics operations.

Modeling and Simulation of Logistics Flows 1 John Wiley & Sons

This volume brings together works resulting from research carried out by members of the EURO Working Group on Transportation (EWGT) and presented during meetings and workshops organized by the Group under the patronage of the Association of European Operational Research Societies in 2012 and 2013. The main targets of the EWGT include providing a forum to share research information and experience, encouraging joint research and the development of both theoretical methods and applications, and promoting cooperation among the many institutions and organizations which are leaders at national level in the field of transportation and logistics. The primary fields of interest concern operational research methods, mathematical models and computation algorithms, to solve and sustain solutions to problems mainly faced by public administrations, city authorities, public transport companies, service providers and logistic operators. Related areas of interest are: land use and transportation planning, traffic control and simulation models, traffic network equilibrium models, public transport planning and management, applications of combinatorial optimization, vehicle routing and scheduling, intelligent transport systems, logistics and freight transport, environment problems, transport safety, and impact evaluation methods. In this volume, attention focuses on the following topics of interest: · Decision-making and decision support · Energy and Environmental Impacts · Urban network design · Optimization and simulation · Traffic Modelling, Control and Network Traffic Management · Transportation Planning · Mobility, Accessibility and Travel Behavior · Vehicle Routing

Stochastic Computer Simulation of Forest Biomass Logistics in Greece Springer Nature

The purpose of this research was to compare two lean logistics infrastructures to See which one would provide better support for the C-5 aircraft. The level of support was defined as the average number of mission capable parts (MICAPs) created by system operation. One infrastructure had the central storage facility (CSF) located at the depot and the other had a geographically separate CSF. A computer simulation model developed by the Air Force Logistics Management Agency was run for a period of twelve years and the average number of MICAPs for each system was collected. The data was then analyzed using a paired T-test. The results showed that the infrastructure with the CSF located at the depot resulted in significantly fewer average MICAPs over a twelve year simulation period. The conclusion is that with regards to the average number of MICAPs produced by system operation, an infrastructure with the CSF located at the depot is desired.

A Hybrid Evolutionary Algorithm for Optimization of Maritime Logistics Operations Helsingin Yliopisto

(Cont.) This thesis investigates the factors of inefficiency in the

current taxi system, reviews previous taxi efficiency studies, and suggests possible solutions. After extensive literature reviews and field research, a computer simulation model has been built in the MATLAB environment. This computer model tests various attributes that affect logistic optimizations for taxi services. In particular, the effect of taxi fleet size, the quantity of hotspots, and the concentrations of customers at hotspots are analyzed in detail using the model. The metric of interest includes the customers' wait time, taxi revenue, and costs of operations. Results from the computer simulation experiments, field research, and literature review are analyzed and synthesized. Possible solutions are proposed as part of this thesis.

Simulation Modeling and Arena

Integrates the concepts of logistics management and simulation to help executives and managers improve their logistics decisions.

**New Research Trends in Transport Sustainability and Innovation**

A computer program for simulating alternative inventory policies for a multi-echelon logistics support system is described. In its present form, the computer program simulates a force composed of nine Polaris submarines, one tender and one depot. Attention is given in the paper to the representation of the physical system, divergencies from the actual environment, decision rules internal to the computer program and computer inputs and outputs. An actual simulation experiment is described and evaluated in terms of the cost and effectiveness measurements permitted via utilization of the simulator. (Author).

Theory, Technologies and Applications (FC 2019)

Volume 3 begins with an introduction to which are added four chapters focused on modeling and flow simulation in an environment in 2 or 3 dimensions (2D or 3D). They deal with different cases taken from situations found in the field. A conclusion comes close this third book: The different software used in this third volume Computer simulation of discrete flows Mixed flow simulation Flows in 3D and the evacuation simulation Flows in 3D for conveying and storage The conclusion discusses the future developments of the software and their integration into society. At the end of each volume is a bibliography and a list of web links. There is also a glossary explaining some abbreviations, acronyms and some very specific terminology of logistics and operations research.

Modeling and Simulation of Logistics Flows 3

This user's guide describes the LOGATAK computer simulation model and its applications. The model is a transportation network simulation by which logistics and combat forces are moved throughout a theater of operations. Interdiction strategies are tested using the model to determine vulnerabilities in the transportation system and evaluate the effectiveness of interdiction against forces and resupply. The model was originally developed in 1977 by the BDM Corporation based on the MAWLOGS (Model of the Army Worldwide Logistics) modeling system. Since then, a number of improvements and enhanced capabilities have been made, resulting in an effective interdiction analysis tool. (Author).

**Simulation-Based Case Studies in Logistics**

This book gathers the proceedings of the 9th International Conference on Frontier Computing, held in Kyushu, Japan on July

9–12, 2019, and provides comprehensive coverage of the latest advances and trends in information technology, science and engineering. It addresses a number of broad themes, including communication networks, business intelligence and knowledge management, web intelligence, and related fields that inspire the development of information technology. The respective contributions cover a wide range of topics: database and data mining, networking and communications, web and internet of things, embedded systems, soft computing, social network analysis, security and privacy, optical communication, and ubiquitous/pervasive computing. Many of the papers outline promising future research directions, and the book will benefit students, researchers and professionals alike. Further, it offers a useful reference guide for newcomers to the field.

**SPIoT-2020, Volume 2**

Systems Logistics, Inc. has designed, programmed, and validated a computer simulation of the International Arrivals building at Honolulu International Airport for the State of Hawaii, Department of Transportation. This report defines the specifications, capabilities, and limitations of this simulation. The report also contains ancillary studies of passenger flow at the International Arrivals building performed as part of the project, including an extensive timing study of passenger movements and border agency inspections and a photographic study of passenger flow.