## Modeling and Simulation Body of Knowledge (M&SBOK) - Index

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## **Terminology: Types of Simulations & Terms Related with Simulations**

(over 850 terms)

(based on the <u>first version</u> of the Multi-lingual Modeling and Simulation Dictionary)

abstract DEVS simulator abstract sequential simulator abstract simulation abstract simulator abstract threaded simulator abstracting in simulation academic simulation acceptability of simulated data acceptability of simulation study accurate simulation activity-based simulation actor-based simulation engine adaptive multisimulation methodology adaptive simulation adaptive simulation infrastructure advanced distributed simulation advanced numerical simulation advanced simulation advanced simulation environment agent simulation agent-based participatory simulation agent-based simulation agent-directed simulation agent-supported multisimulation agent-supported simulation agent-supported simulation framework aggregate level simulation aggregate level simulation protocol

AI-directed simulation all digital simulation software all software simulation all-digital analog simulation all-digital simulation ALPS-compliant simulation system alternative simulation model analog simulation analog simulation software analog simulation study analysis of simulation result analytic simulation analytic simulation analytic simulation technique antithetic simulation run antithetic simulation study approximate simulation as-fast-as-possible simulation assessment of a simulationist assessment of simulated data assessment of simulation team asymmetric simulation asynchronous simulation audio simulation augmented live simulation augmented reality simulation automatic simulation model generation autonomous simulation mode autosimulation autosimulative base case simulation behavioral microsimulation model behavioral simulator benefit of simulation bisimulation bisimulation equivalence bond-graph simulation branched simulation built-in simulation built-in simulator calibrated simulation model

case-based simulation cellular automaton simulation closed-form simulation co-simulation coercible simulation coercion simulation cognitive simulation cognitive simulator cohersing simulation collaborative simulation collaborative simulation environment collaborative simulation grid collaborative simulation system collaborative virtual simulation colored Petri net simulator combined continuous-discrete simulation combined simulation combined system simulation competition simulation competitive simulation game component simulation component-based distributed simulation component-based simulation paradigm composable simulation composite simulation comprehensive simulation system compressed-time simulation computer network simulation computer simulation computer-aided simulation computer-based simulation computerized simulation conceptual reusable simulation model conceptual simulation model concurrent simulation concurrent simulator condensed-time simulation conjoint simulation conservative simulation constrained simulation

constructive simulation

constructive simulation integration constructive training simulation continuous simulation continuous-change simulation continuous-system simulation continuous-time simulation conventional simulation cooperative simulation cooperative simulation effort cooperative simulation game coopetition simulation coopetitive simulation game cosimulation cosimulation component cost analysis for simulation-based acquisition cost of simulation coupled simulation coupled simulation software credible simulation critical event simulation customizable simulation customized simulation data-driven simulation data-intensive simulation **DES** (Discrete Event Simulation) descriptive simulation design of simulation experiment design of simulation experiments design simulator deterministic simulation **DEVS** simulation protocol **DEVS** simulator digital analog simulation digital computer simulation digital simulation

digital simulation
digital simulation program
digital simulation software
digital simulation study
direct simulation
DIS (Distributed Interactive Simulation)
DIS-compliant simulation system

disconnected simulation discrete event simulation discrete simulation discrete-change simulation discrete-system simulation discrete-time simulation dissimilar simulations dissimulate (v) dissimulation dissimulator distributed DEVS simulation distributed interactive simulation distributed real-time simulation distributed simulation distributed simulation protocol distributed simulation architecture distributed simulation environment distributed simulation framework distributed simulation technology distributed simulator distributed web-based simulation distributed-parameter system simulation driving simulator dynamic microsimulation model dynamic simulation update dynamic simulation composition dynamic simulation linking dynamic simulation service dynamic simulation updating dynamic system simulation dynamically composable simulation economic impact of simulation economics of simulation effects of simulation exposure embedded simulation emerging simulation system endomorphic simulation engineering simulator enterprise simulation model entity-level simulation

environmental simulation

error-controlled simulation evaluative simulation

event-based discrete simulation

event-based simulation

event-driven simulation

event-following simulation

event-oriented simulation

event-scheduling simulation

evolutionary simulation algorithm

ex-ante simulation

expanded-time simulation

experience-aimed simulation

experiment-aimed simulation

expert system embedded within simulation

explanatory simulation

exploratory multisimulation

exploratory multisimulation methodology

exploratory simulation

ex-post simulation

extensible simulation

extensible simulation infrastructure

fast simulation

fast simulation modeling

fault simulation

fault tolerant simulation

faulty simulation

federated simulation

federated simulation architecture

federated simulation environment

federated simulation service

federated simulation system

flat sequential simulator

forward multisimulation

forward multisimulation gaming

fully coupled simulation

functional simulation

fuzzy simulation

fuzzy system simulation

game simulation

game-like simulation

game-theoretic simulation

gaming simulation
general purpose distributed simulation
general simulation knowledge
generalized simulation
generalized-model simulation
genetic algorithm simulation
grid-based collaborative simulation environment
grid-based simulation

hands-on simulation

hardware simulator

hardware-in-the-loop simulation

heterogeneous simulation

heterogeneous simulator

hierarchical DEVS simulator

hierarchical sequential simulator

hierarchical simulation

hierarchical simulation engine

hierarchy of simulations

high-resolution simulation

HLA-compliant simulation study

HLA-compliant simulation system

holonic simulation

holonic system simulation

host simulation computer

host simulation system

human-centered simulation

human-in-the-loop simulation

human-in-the-loop simulator

human-machine simulation

human-simulation interaction

hybrid gaming simulation

hybrid simulation

hybrid simulation software

hybrid simulation study

identity simulation

immersive simulation

impact of simulation

implementability of simulation recommendation

in-basket simulation

incremental simulation

individual-based simulation

instructional simulation

integrated simulation

intelligent simulation

intelligent simulation environment

intelligent system simulation

interactive simulation

interoperability of simulation model

interoperable simulation

interoperable simulation environment

interpre(ta)tive simulation

interpretational simulation

intersimulation data

interval-oriented simulation

intrasimulation data

introspective simulation

introspective simulation model

joint simulation

joint simulation system

JSIMS (Joint Simulation System)

knowledge-based dynamic simulation composition

knowledge-based simulation

knowledge-based simulator

laboratory simulation

large scale simulation environment

large scale simulation software development

large-scale simulation

lazy simulation

lean simulation

legacy simulation

legacy simulation system

length of the simulation run

library-driven simulation

life-cycle of a simulation study

life-cycle of simulation

linear programming embedded within simulation

linear system simulation

line-of-sight simulation

linkage of live, virtual, and constructive simulations

linkage to live simulation

live simulation

live training simulation

live-system enriching simulation

live-system supporting simulation

logic simulation

logic simulator

logical simulation

logical simulation topology

loosely coupled federated simulations

M&S (Modeling and Simulation)

machine simulation

machine-centered simulation

man-centered simulation

man-in-the-loop simulation

man-in-the-loop simulator

man-machine simulation

man-machine system simulation

manual simulation

Markov simulation

massively multi-player simulation

mathematical simulation

mental simulation

meta-simulation

micro simulation

microanalytic simulation

microsimulation model

military simulation gaming

mission rehearsal simulation

mixed simulation

mixed-signal simulation

mock simulation

model-based simulation monitor

modeling and simulation

modeling, simulation and visualization

modular simulation

modular simulation program

monotonic evolutionary simulation algorithm

Monte Carlo simulation

MS&V (Modeling Simulation and Visualization)

MSMP (Modeling and Simulation Master Plan)

multi simulator

multi-agent participatory simulation

multi-agent simulation

multiaspect simulation multilevel simulation multimedia simulation multimedia-enriched simulation multimodel simulator multi-paradigm simulation multi-paradigm simulation system multi-player simulation multiple simulator multiple-fidelity simulation multiple-run simulation study multi-processor simulation multirate simulation multi-resolution multisimulation multiresolution simulation multisimulation multisimulation engine multisimulation formalism multisimulation gaming multisimulation gaming strategy multisimulation methodology multistage simulation nested simulation net-centric simulation networked simulation non-linear system simulation non-line-of-sight simulation non-numerical simulation non-simulatable model non-zero-sum simulation game normality of simulation data normative simulation norms of simulation methodology number of simulation runs numerical simulation object simulation program object-oriented simulation online simulation online simulation update optimistic simulation optimistic simulation algorithm

optimistic simulation architecture optimization embedded within simulation optimization within simulation optimizing simulation outcome-driven simulation outcome-oriented simulation parallel discrete-event simulation parallel simulation parallel simulation engine parallel simulator participative simulation participatory simulation peace simulation Petri net simulation physical simulation physical system simulation plan simulation portable simulation portable simulation system post simulation analysis post simulation report post-simulation phase predictive simulation prescriptive simulation pre-simulation phase process simulation process-based discrete event simulation process-oriented simulation proxy simulation pseudo simulation pseudo simulator public domain simulation pure software simulation purpose of simulation qualitative simulation qualitative simulation system quantitative simulation quantized DEVS simulator quantized simulator quasi-analytic simulation quasi-analytic simulation technique

quasi-Monte Carlo simulation rare-event simulation real-system enriching simulation real-system support simulation real-time continuous simulation real-time simulation reasonable simulation reasoning simulation reconfigurable simulator regenerative simulation related simulation reliable simulation reliable simulation model retrospective simulation reusable simulation component reuse of simulation asset risk simulation robust simulation runtime library role playing simulation rule-based system embedded within simulation runtime simulation linking runtime simulation reconfiguration runtime simulation update scaled real-time simulation self-organizing simulation self-organizing system simulation sequential simulation sequential simulator serial simulation serious simulation server simulator shape simulation simulatable simulatable model simulate (v) simulated simulated view simulated annealing simulated annealing method simulated behavior

simulated data

simulated entity

simulated environment

simulated evolution

simulated input

simulated model

simulated real-time

simulated representation

simulated retrocausality

simulated time

simulated warfare

simulated world

simulating program

simulation

simulation branching

simulation concept

simulation controller

simulation coordination

simulation engine

simulation operator

simulation resolution

simulation reuse

simulation stability

simulation accuracy

simulation adaptation

simulation algorithm

simulation analysis

simulation animation

simulation annealing process

simulation application

simulation application federate

simulation architecture

simulation asset

simulation asset management

simulation association

simulation-based

simulation brokering

simulation business

simulation business practice

simulation capability

simulation certification

simulation clock

simulation code

simulation coercion

simulation complexity

simulation component

simulation component interface

simulation composability

simulation composition

simulation confederation

simulation configuration

simulation control

simulation correctness

simulation credibility

simulation customer

simulation data

simulation delivery

simulation design

simulation design methodology

simulation developer

simulation development

simulation development environment

simulation development life cycle

simulation development program

simulation documentation

simulation domain

simulation domain requirements

simulation- driven

simulation effort

simulation embedded within expert system

simulation embedded within linear programming

simulation embedded within optimization

simulation embedded within rule-based system

simulation- enhanced

simulation enterprise

simulation entity

simulation environment

simulation epistemology

simulation error

simulation error assessment

simulation ethics

simulation execution

simulation execution environment

simulation execution speed

simulation execution synchronization

simulation exercise

simulation experiment

simulation expert

simulation exposure

simulation federation

simulation fidelity

simulation fitness

simulation for acquisition

simulation for decision making

simulation for decision support

simulation for system analysis

simulation for system design

simulation for systems engineering life cycle

simulation for training

simulation framework

simulation game

simulation gaming

simulation gaming application

simulation gaming process

simulation gaming project

simulation gaming software

simulation gaming tool

simulation- generated

simulation granularity

simulation grid

simulation grid architecture

simulation heuristic

simulation implementation

simulation in entertainment

simulation in entertainment game

simulation infrastructure

simulation instance

simulation interaction

simulation interface

simulation interface issue

simulation interface system

simulation interoperability

simulation interoperability standard

simulation investment

simulation knowledge

simulation knowledge acquisition

simulation knowledge sharing

simulation language

simulation language processor

simulation latency

simulation layer

simulation library

simulation life cycle

simulation linkage

simulation maintenance program

simulation management

simulation management capability

simulation manager

simulation market

simulation metamodel

simulation metamodeling

simulation method

simulation methodology

simulation middleware

simulation mode

simulation mode control

simulation model

simulation model assessment

simulation modeling

simulation modeling infrastructure

simulation monitoring

simulation object model

simulation on high performance computer

simulation ontology

simulation optimization

simulation optimization methodology

simulation optimization problem

simulation organization

simulation output data analysis federate

simulation package

simulation paradigm

simulation participant

simulation phase

simulation platform

simulation platform degree of freedom

simulation policy group simulation portal simulation problem simulation process simulation processor simulation program simulation program generator simulation program management simulation programming simulation programming language simulation project simulation project management simulation project report simulation protocol simulation proxy simulation quality assurance simulation reconfiguration simulation reference markup language simulation- related simulation relation simulation reliability simulation repository simulation resource simulation response simulation response function simulation response surface simulation result simulation reusability simulation robustness simulation run simulation run control simulation run control simulation run length simulation run monitoring simulation runtime library simulation runtime monitoring simulation sequence simulation server simulation service

simulation service provider

simulation society

simulation software

simulation software assessment

simulation software development

simulation- specific

simulation specification

simulation specification environment

simulation specification language

simulation specification repository

simulation stakeholder

simulation standard

simulation status

simulation strategy

simulation structure

simulation study

simulation study monitoring

simulation support

simulation support entity

simulation support tool

simulation supported game

simulation supported war game

simulation system

simulation systems engineering

simulation task

simulation team

simulation technique

simulation technology

simulation term

simulation terminology

simulation time

simulation tool

simulation topology

simulation trainer development

simulation update

simulation update time

simulation updating

simulation use

simulation user

simulation user issue

simulation utility

simulation utility type

simulation validation

simulation visualization federate simulation web service simulation within optimization simulation, test, and evaluation process simulational context simulation-augmented reality simulation-based education simulation-based prototype simulation-based understanding simulation-based acquisition simulation-based augmented reality simulation-based control simulation-based control graph simulation-based data mining simulation-based design simulation-based design approach simulation-based diagnosis simulation-based distributed training simulation-based education technique simulation-based enterprise simulation-based learning

simulation-based learning system simulation-based management simulation-based operational support

simulation-based optimization simulation-based prediction simulation-based problem solving

simulation-based problem solving environment

simulation-based proof-of-concept simulation-based prototyping

simulation-based research

simulation-based serious game

simulation-based system

simulation-based system acquisition

simulation-based tool

simulation-based training

simulation-based training system

simulation-C4ISR interoperability

simulation-control program

simulation-driven education

simulation-driven optimization

simulation-driven training

simulationist

simulation-model response

simulations

simulative

simulative design

simulative design approach

simulative design environment

simulative environment

simulative problem solving environment

simulative solution technique

simulator

simulator middleware

simulator parameter

simulator program

simulator server

simultaneous simulation

single component simulation

single processor simulation

single run simulation study

single-paradigm simulation system

smoothness simulation

software simulator

source simulation program

spatial microsimulation model

special-purpose simulation hardware

specification of simulation task

spectrum of simulators

stand-alone simulation

static microsimulation model

static simulation

statistical design of simulation experiments

steady-state simulation

stochastic simulation

stochastic simulation model

stochastic simulation optimization

strong bisimulation

structural simulation

structure simulation

structured simulation knowledge

symbiotic simulation

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symbolic simulation symmetric simulation system simulation theory system-of-systems simulation systems engineering for simulation life cycle systems theory based simulation technical simulation terminating simulation texture simulation throttled time-warp simulation time-slicing simulation time-stepping simulation time-varying system simulation time-warp simulation trace-driven simulation tractable simulation training simulation training simulation game training simulator trajectory simulation transfer function simulation trends in simulation Trojan simulator unconstrained simulation uncoupled simulation uniform bisimulation equivalence unsimulatable use of simulator in training value of simulation variable fidelity simulation variable resolution simulation virtual simulation virtual simulator virtual training simulation visual interactive simulation visual simulation visual simulator war simulation warfare simulation weak bisimulation equivalence

wearable computer-based simulation

web-based simulation web-centric simulation web-enabled simulation yoked simulation zero sum simulation