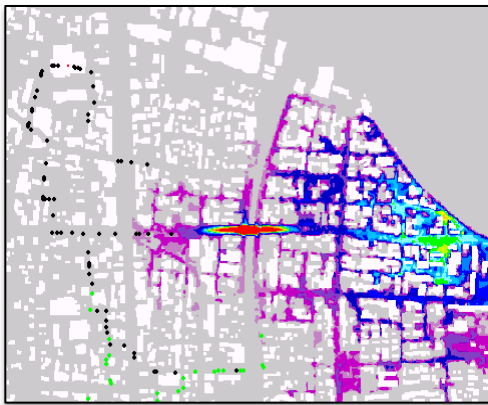


Support of artificial societies on computer decision-making

Complex Approach

- ◆ What was this problem caused? When and how can it be solved? It is difficult to find the answer at the combined and complex societies. The Complex Approach can construct the artificial societies on the computer, and discover the social phenomenon (**emergent phenomenon**) that couldn't get in the traditional analysis technique, with resonance and affinity through observing and evaluating the performance.



River flood evacuation model

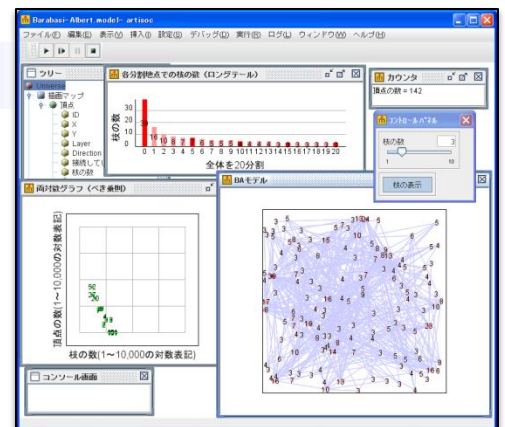
- ◆ Many agents who have individual decision-making rule exist at the artificial societies, and they can act and accumulate experience. Based on each value, most agents interface concurrently, therefore the society will be come up.
- ◆ It is possible to learn trial and error what influence can happen in the whole society, **when and what will be done (or not)**.
- ◆ **artisoc** support **the decision-making of the hypothesis verification type that depend on bottom up** based on the assumption of deciding the society by interaction of individual decision-making, and changing at the time.

Complex Simulator 『artisoc』

To spread the method of the agent based simulation which is the complex approach, KOZO KEIKAKU ENGINEERING Inc. (KKE) is expanding various business performance. KKE also developed the complex simulator 『artisoc』 for many users as decision-making and analysis tool. 『artisoc』 can simply build up a model.

Major Activities

- ◆ Year 2000 Agent based simulator 『KK-MAS』 release
- ◆ Year 2000 『GROWING ARTIFICIAL SOCIETIES』 publishing seminar
- ◆ Year 2001 The 1st MAS competition
- ◆ Year 2002 The 2nd MAS competition
- ◆ Year 2003 The 3rd MAS competition
- ◆ Year 2004 The 4th MAS competition
- ◆ Year 2005 The 5th MAS competition
- ◆ Year 2005 International Workshop (The University of Tokyo)
『Multi-agent simulation and Method of Social Science』
- ◆ Year 2006 Complex Simulator 『artisoc』 release
- ◆ Year 2006 The 6th MAS competition & KK-MAS tutorial
- ◆ Year 2007 The 7th MAS competition & artisoc tutorial
- ◆ Year 2007 Symposium (The University of Tokyo)
『Artificial Societies Possibility-Multi-agent simulation and Social Science』
- ◆ Year 2008 The 8th MAS competition & artisoc tutorial
- ◆ Year 2009 The 9th MAS competition & artisoc tutorial



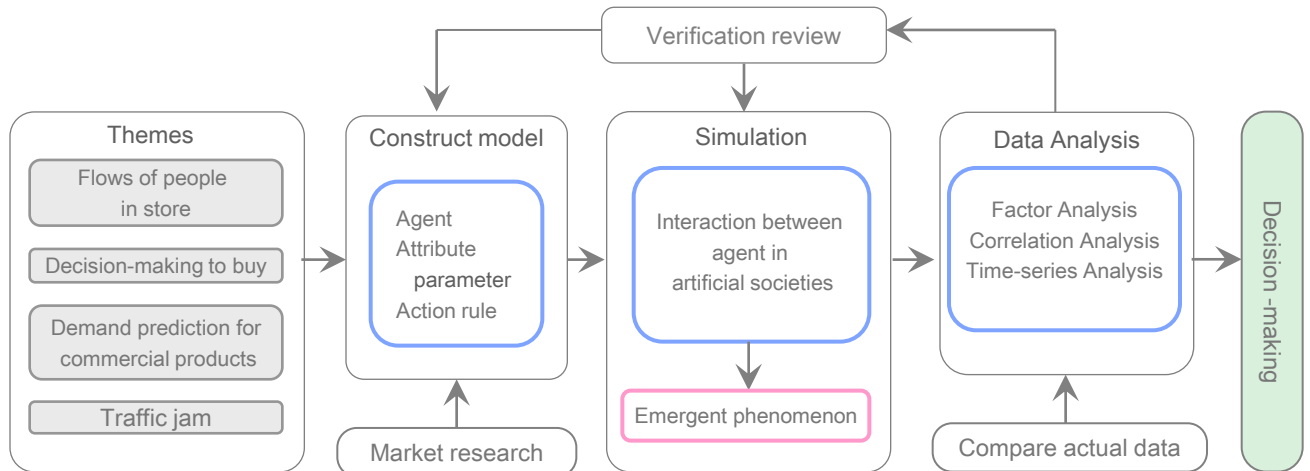
Long tail model

Major Records

- ◆ Educational support → collaboration with 527 academia clients
- ◆ Report the results of studies in academic society, workshop
Passenger Marketing study competition Encouragement Prize (KK-MAS)
The Operations Research society of Japan Society Award (KK-MAS)
- ◆ Related books
『GROWING ARTIFICIAL SOCIETIES / by EPSTEIN 』 (Japanese translation)
『コンピュータのなかの人工社会』 (MAS collected papers)
『複雑系マーケティング入門』 (Hideaki Kitanaka)
『人工社会構築指南』 (Susumu Yamakage)
『ビジネスシステムのシミュレーション』 (Norihisa Komoda)
『ネイションの複雑性』 (Kazuya Yamamoto)

Complex Consulting

KKE provide business consulting with using the complex simulator 『artiosc』.



Institutional Design, Policy Evaluation

Liberalization of electricity trading simulation
 Effective employment policy simulation
 International emissions trading simulation

Human Action

Audience rating prediction simulation
 Operational efficiency improvement at pharmacy simulation
 Counting flows of people · congestion at mall simulation
 Kid's playing group forming simulation

Disaster-prevention, Evacuation, Traffic

Portable hazard map
 (earthquake, river flood, tsunami, fire evacuation)
 Waterborne aid delivery in disasters simulation
 Initial evaluation simulation of advanced safety driving support system

Assessment of Environment

Cell phone traffic control simulation
 Recycle process simulation for construction waste
 Urban infrastructures · maintenance simulation

Products lineup

	artiosc professional	artiosc academic	artiosc textbook	artiosc player
Target user	Corporate business Administrative agency	Academic (student, faculty member)	All user	All user
Simulation function	○	○	○ (rule: max 200 lines, In-out filename limited)	△ (only binary model)
Model function	○	○	○	×
Debug	○	○	○	×
Network, Script Database linkage	○	×	×	○
Language	Japanese / English (available attached documents for each language)			
Hardware requirements	Windows 7/Vista/XP、Mac OS X Snow Leopard/Lion (running in Java1.6.0 or more)			
USB key	3 attached USB	1 liscence ¥30,000 (tax excluded)	(no need)	(no need)
Price	Please ask.	¥120,000 (tax excluded)	Attached book※	free (available from HP download)

※ Book 『人工社会構築指南』, 『artiosc で始める歩行者エージェントシミュレーション』

