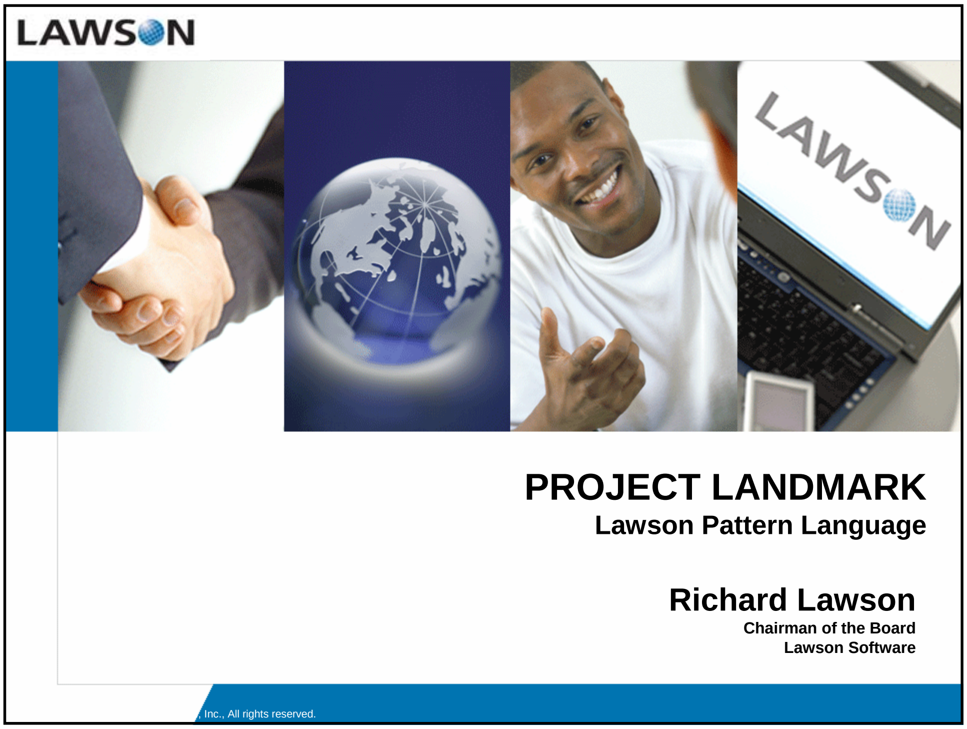
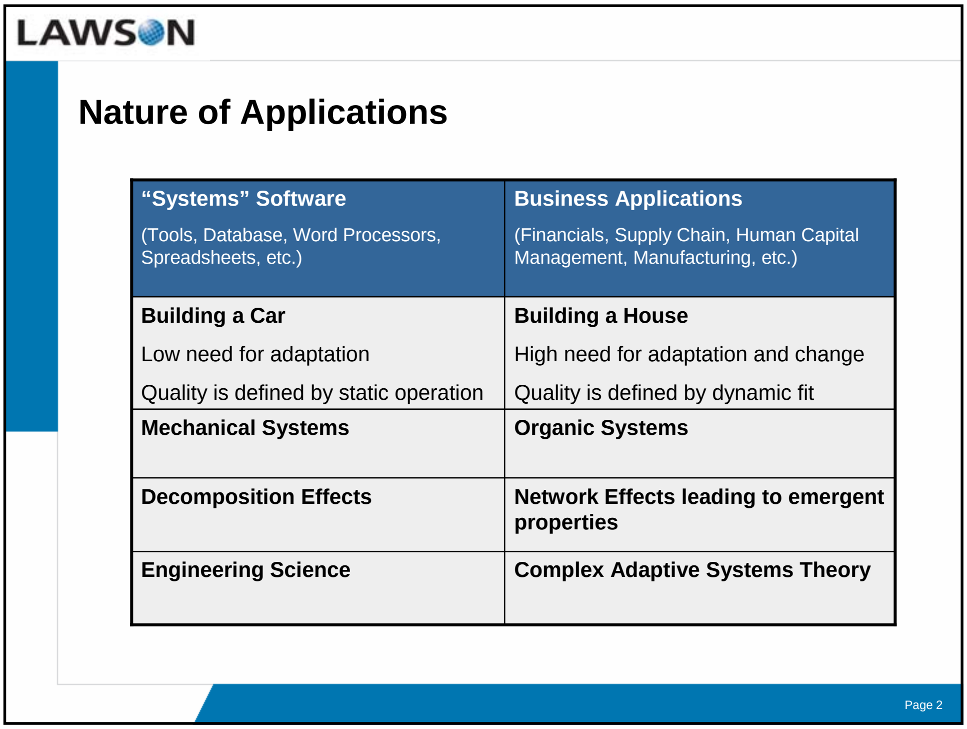


PROJECT LANDMARK

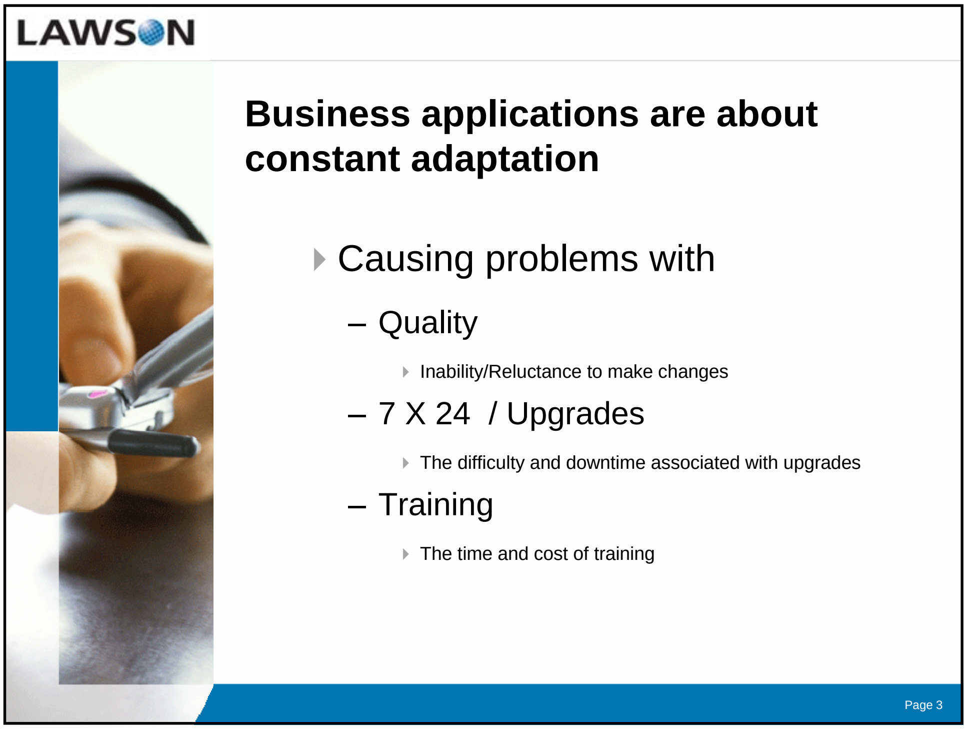
Lawson Pattern Language

Richard Lawson
Chairman of the Board
Lawson Software



Nature of Applications

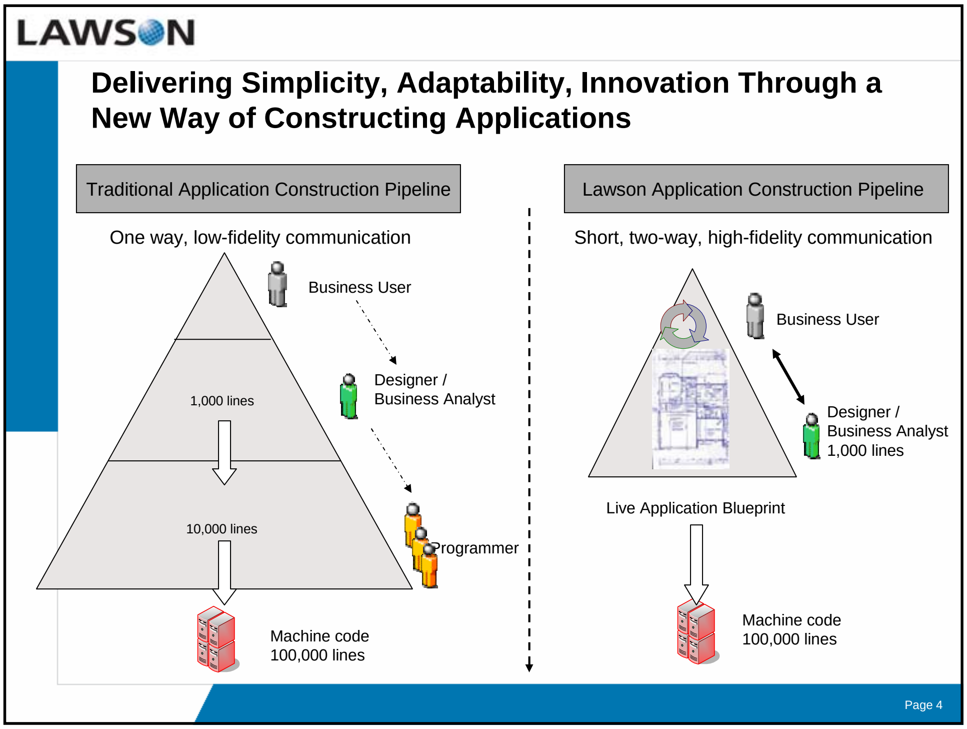
"Systems" Software (Tools, Database, Word Processors, Spreadsheets, etc.)	**Business Applications** (Financials, Supply Chain, Human Capital Management, Manufacturing, etc.)
Building a Car Low need for adaptation Quality is defined by static operation	**Building a House** High need for adaptation and change Quality is defined by dynamic fit
Mechanical Systems	**Organic Systems**
Decomposition Effects	**Network Effects leading to emergent properties**
Engineering Science	**Complex Adaptive Systems Theory**



LAWSON

Business applications are about constant adaptation

- Causing problems with
  - Quality
    - Inability/Reluctance to make changes
  - 7 X 24 / Upgrades
    - The difficulty and downtime associated with upgrades
  - Training
    - The time and cost of training



LAWSON

Delivering Simplicity, Adaptability, Innovation Through a New Way of Constructing Applications

Traditional Application Construction Pipeline

One way, low-fidelity communication

Business User

Designer / Business Analyst

1,000 lines

10,000 lines

Programmer

Machine code 100,000 lines

Lawson Application Construction Pipeline

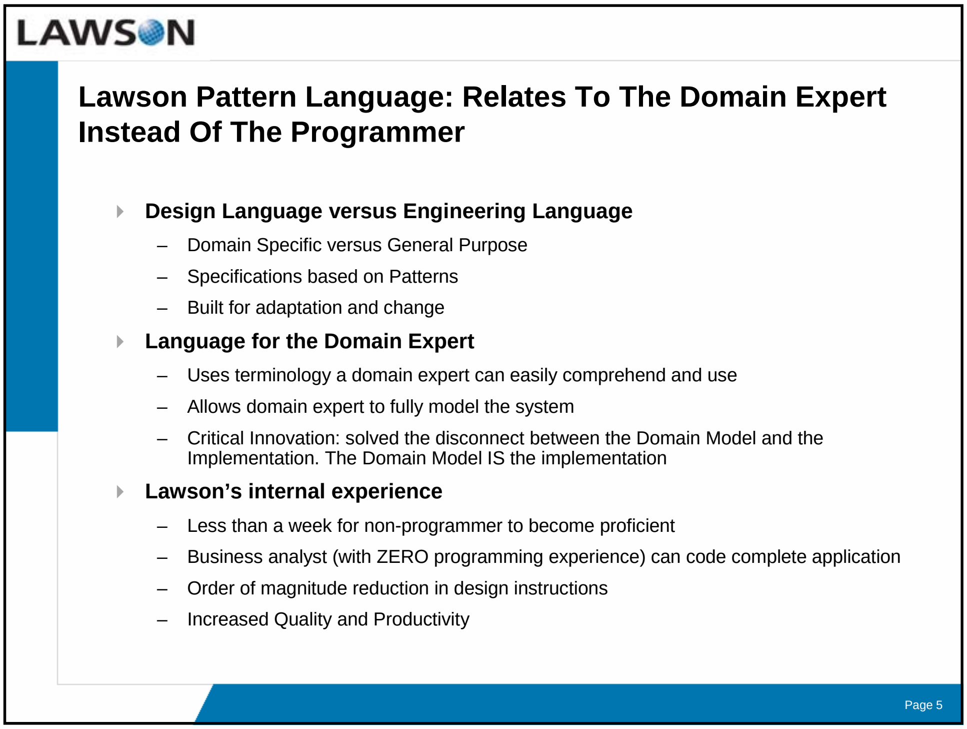
Short, two-way, high-fidelity communication

Business User

Designer / Business Analyst 1,000 lines

Live Application Blueprint

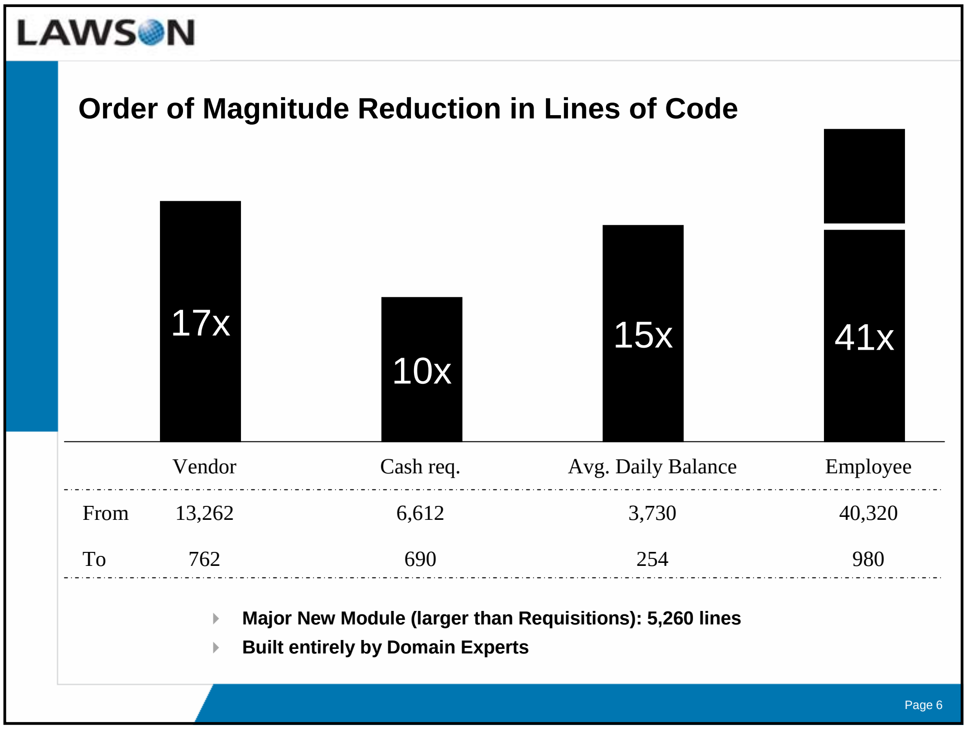
Machine code 100,000 lines



LAWSON

Lawson Pattern Language: Relates To The Domain Expert Instead Of The Programmer

- **Design Language versus Engineering Language**
  - Domain Specific versus General Purpose
  - Specifications based on Patterns
  - Built for adaptation and change
- **Language for the Domain Expert**
  - Uses terminology a domain expert can easily comprehend and use
  - Allows domain expert to fully model the system
  - Critical Innovation: solved the disconnect between the Domain Model and the Implementation. The Domain Model IS the implementation
- **Lawson's internal experience**
  - Less than a week for non-programmer to become proficient
  - Business analyst (with ZERO programming experience) can code complete application
  - Order of magnitude reduction in design instructions
  - Increased Quality and Productivity



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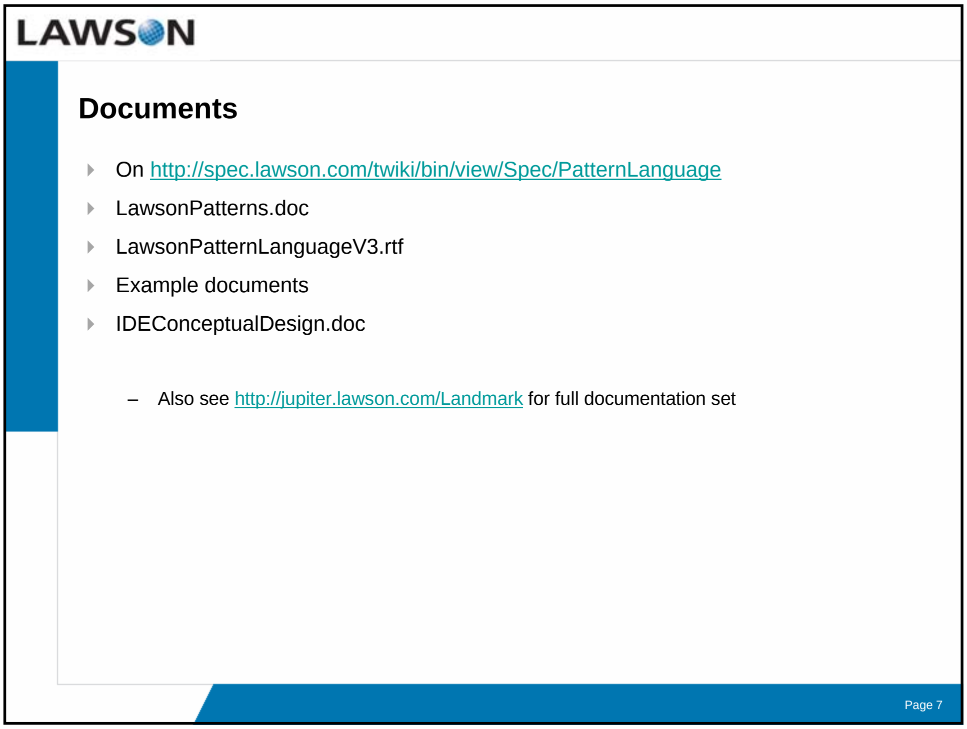
Order of Magnitude Reduction in Lines of Code

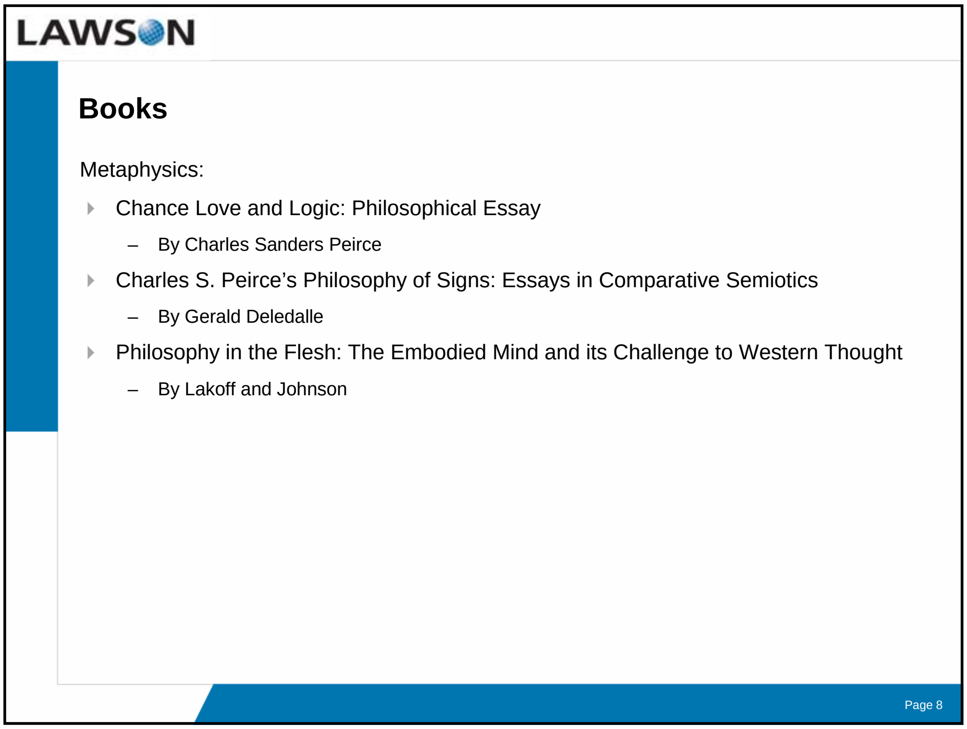
	Vendor	Cash req.	Avg. Daily Balance	Employee
From	13,262	6,612	3,730	40,320
To	762	690	254	980

- **Major New Module (larger than Requisitions): 5,260 lines**
- **Built entirely by Domain Experts**



Documents

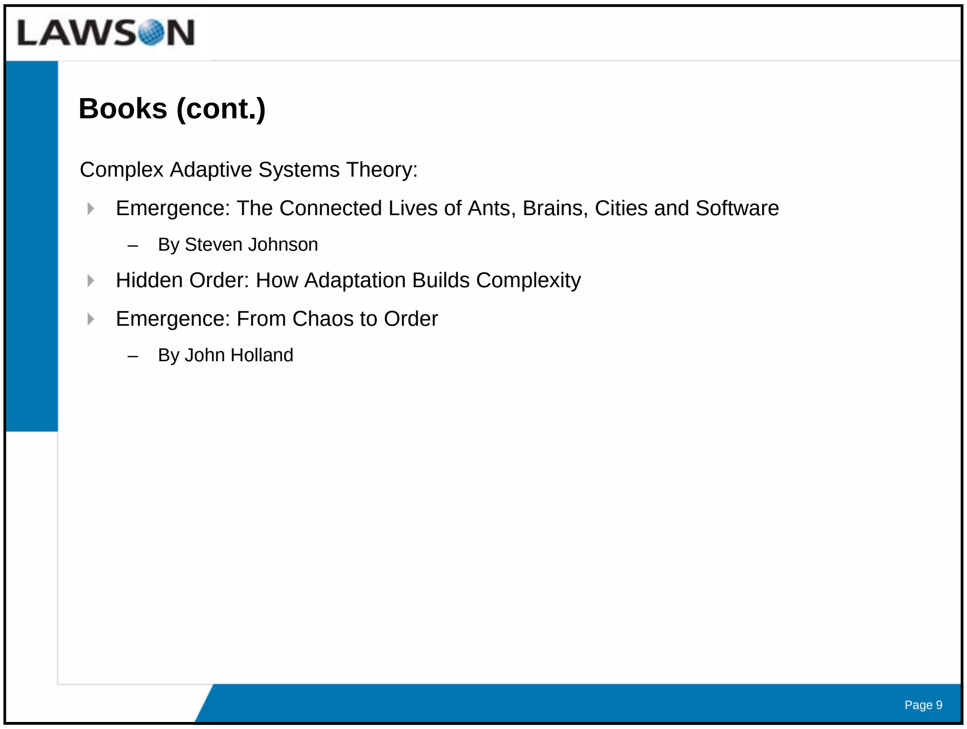
- On http://spec.lawson.com/twiki/bin/view/Spec/PatternLanguage
- LawsonPatterns.doc
- LawsonPatternLanguageV3.rtf
- Example documents
- IDEConceptualDesign.doc
  - Also see http://jupiter.lawson.com/Landmark for full documentation set



Books

Metaphysics:

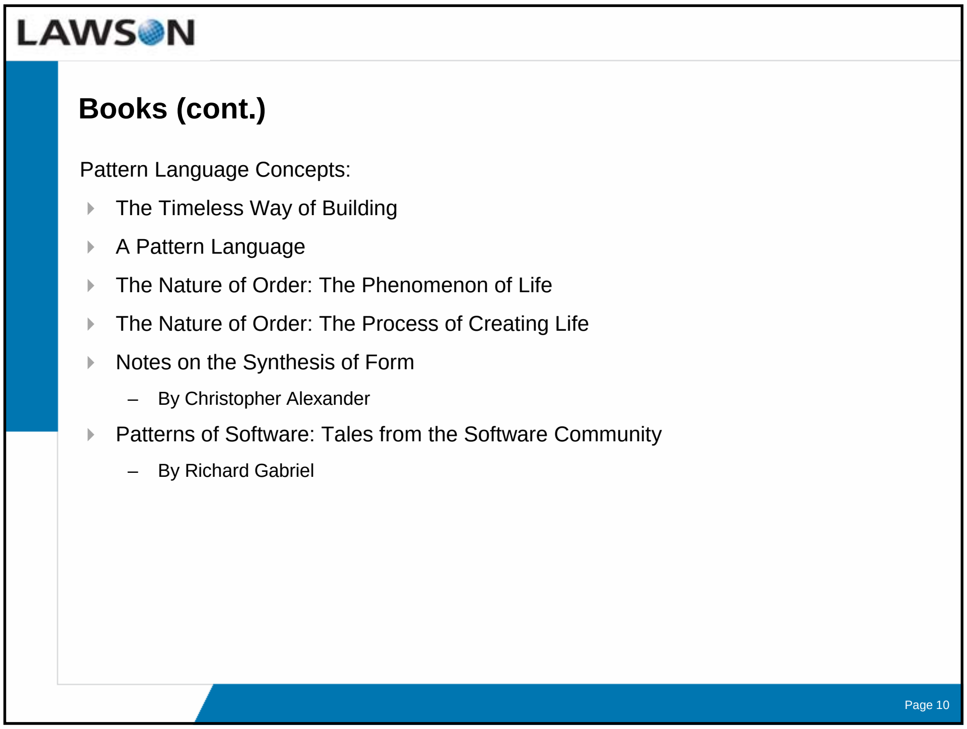
- Chance Love and Logic: Philosophical Essay
  - By Charles Sanders Peirce
- Charles S. Peirce’s Philosophy of Signs: Essays in Comparative Semiotics
  - By Gerald Deledalle
- Philosophy in the Flesh: The Embodied Mind and its Challenge to Western Thought
  - By Lakoff and Johnson



Books (cont.)

Complex Adaptive Systems Theory:

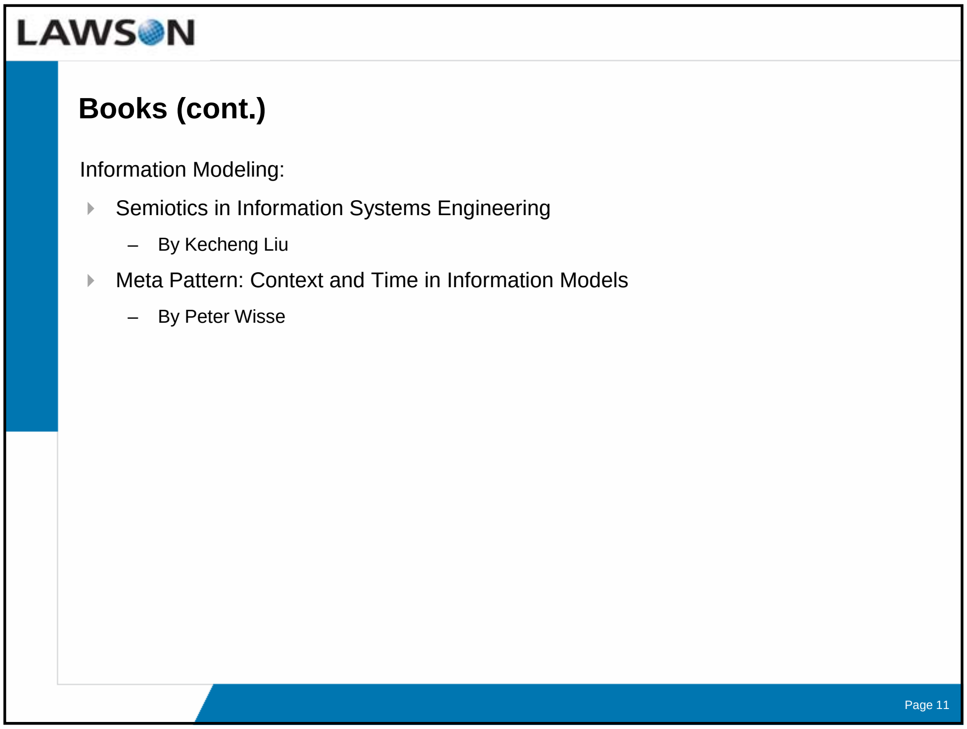
- Emergence: The Connected Lives of Ants, Brains, Cities and Software
  - By Steven Johnson
- Hidden Order: How Adaptation Builds Complexity
- Emergence: From Chaos to Order
  - By John Holland



Books (cont.)

Pattern Language Concepts:

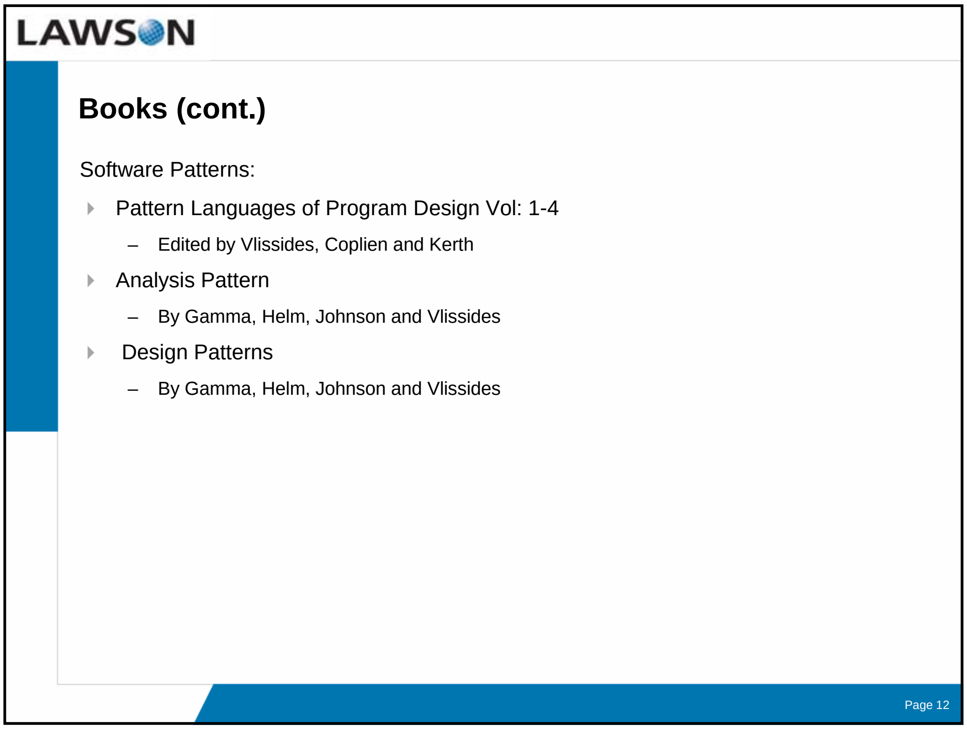
- The Timeless Way of Building
- A Pattern Language
- The Nature of Order: The Phenomenon of Life
- The Nature of Order: The Process of Creating Life
- Notes on the Synthesis of Form
  - By Christopher Alexander
- Patterns of Software: Tales from the Software Community
  - By Richard Gabriel



Books (cont.)

Information Modeling:

- Semiotics in Information Systems Engineering
  - By Kecheng Liu
- Meta Pattern: Context and Time in Information Models
  - By Peter Wisse



Books (cont.)

Software Patterns:

- Pattern Languages of Program Design Vol: 1-4
  - Edited by Vlissides, Coplien and Kerth
- Analysis Pattern
  - By Gamma, Helm, Johnson and Vlissides
- Design Patterns
  - By Gamma, Helm, Johnson and Vlissides

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Thank You

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