

Ersatz Systems Machine Cognition, LLC (ESMC)

Colorado Springs, Colorado

Incorporated 2012

IP Cross-licensed with CEC Services, LLC (CECSSM), founded 1985, incorporated 1995

ESMC develops embedded software

- Services for software development
 - Exclusive to the bi-valent branches of math and computing
 - Flat rate quotes and 100% portable solutions
- Tools for hardware development
 - Computing in irrational number bases, such as ϕ
 - Logical arithmetic in the 16 symmetrical and 240 non-symmetrical connectives
- Products for sale and license
 - Kanban cell as a universal computer
 - Bi-valent neurons of Kanban cells
 - Self-timing computer embedded in smallest FPGA

ESMC Software development services

Analysis based only on bi-valent mathematics and computing

Mathematics:	Geometry and topology; Information theory; Game theory; Cryptology; Signal processing
Computing:	Turing machine; Software; Hardware; Interface; Sequential state machine; Irrational radix arithmetic

Design using the Software Development Methodology (SDM)

The finished user's manual is the target requirements document.

Project resources with testing are estimated to within 100 person hours as
 $= 7 \times (\text{time of analysis} + \text{design})$, meaning flat rate work quotes.

100% portable, scalable, useable, maintainable (pSUM) code in

Structured query language (SQL)

Ada2012 and VHSIC Hardware Description Language (VHDL)

True BASIC®

ESMC Hardware development tools

Computations in irrational number bases such as:

$$\phi = (1 - (5^{0.5})) / 2;$$

$$\Phi = (1 + (5^{0.5})) / 2$$

Use of the Standard Form Notation of minimal 1's notation:

$$4 = 101.01;$$

$$5 = 1000.0001;$$

$$4 + 5 = 9 = 10010.0101$$

Logical arithmetic in 256-connectives, as those defined by OR:

$$\text{NOT}(p) = \text{NOT}(p \text{ OR } p); \text{NOT}(q) = \text{NOT}(q \text{ OR } q)$$

$$p \text{ AND } q \equiv (\text{NOT}((\text{NOT}(p)) \text{ OR } (\text{NOT}(q))))$$

$$p \text{ EQV } q \equiv ((\text{NOT}(p \text{ OR } q)) \text{ OR } (\text{NOT}(\text{NOT}(p) \text{ OR } \text{NOT}(q))))$$

$$p \text{ IMP } q \equiv (\text{NOT}((\text{NOT}(p)) \text{ OR } q))$$

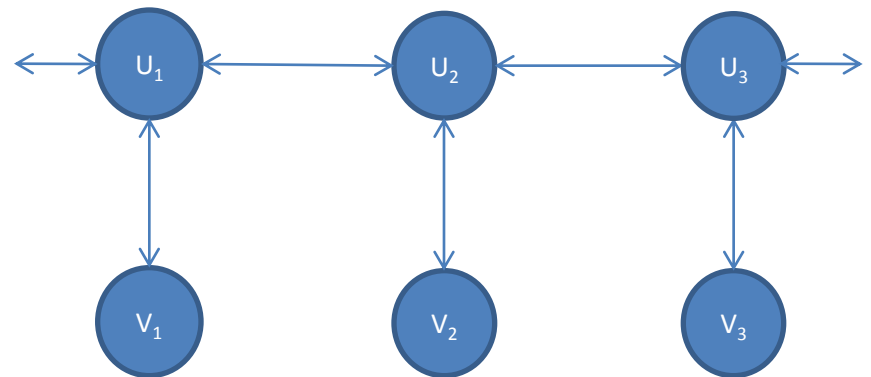
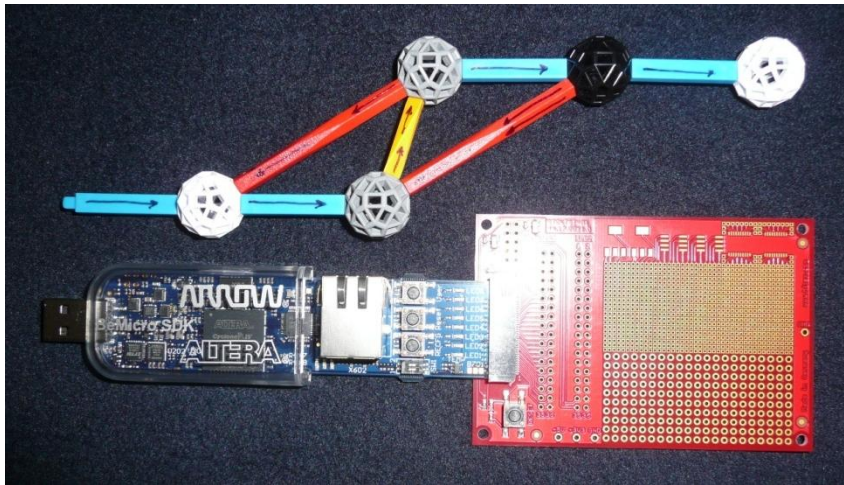
$$p \text{ IF } q \equiv (p \text{ OR } (\text{NOT}(q)))$$

$$p \text{ RP } q \equiv (\text{NOT}((\text{NOT}(p)) \text{ OR } (\text{NOT}(q)))) \text{ OR } q$$

ESMC Products for sale and license

The Kanban cell as a universal computer; The self-timing computer as embedded in the smallest FPGA's

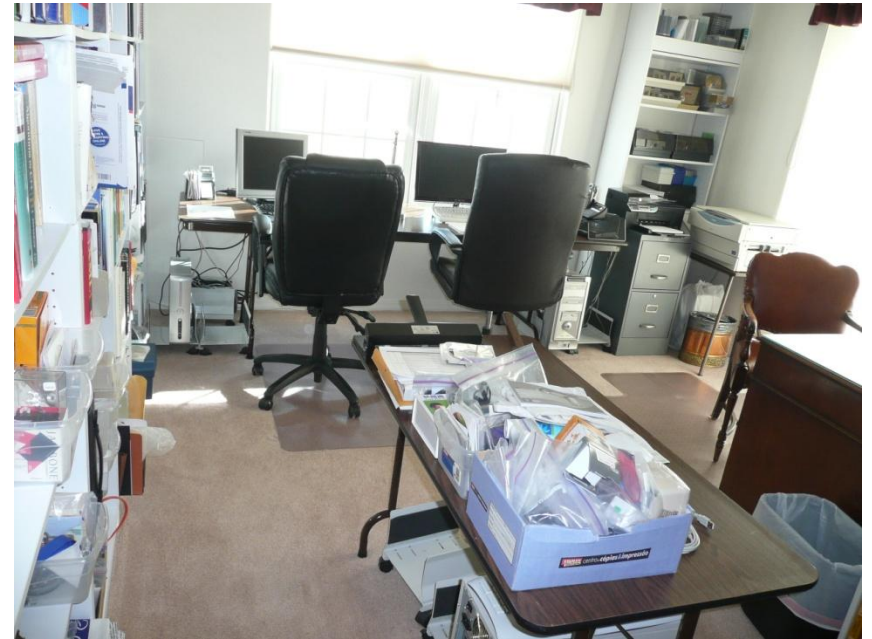
Bi-valent neurons of Kanban cells known as Bi-valent Neurons



Savvy Mission Statement

Sell the company.

Computer laboratory at principal office



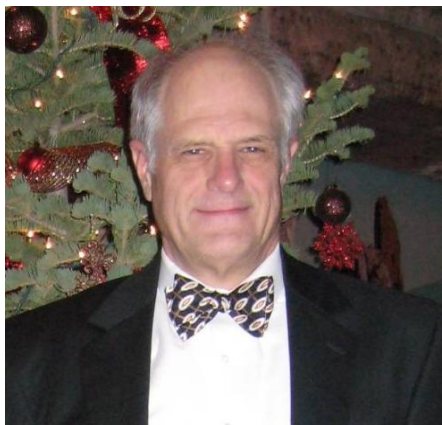
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Corporation details

Corporate name: Ersatz Systems Machine Cognition, LLC (ESMCSM)
Principal address: 3925 Elisa Ct, Colorado Springs CO 80904
Date incorporated: 2012 February 6
State incorporated: Colorado
Corporation type: Limited Liability Corporation
Director: Colin James III
Federal EIN: 45-4457081
D & B DUNS: 179259015
Wholesale license: 01336550 (facsimile on request)
IP Licensing: Cross-licensed with CEC Services, LLC (est. 1985)
Business banking: Guaranty Bank and Trust Company, Colorado
Web domains: ersatz-systems.com; ersatz-systems.net
Employee number: 3 (includes one Chinese and one Thai speaking)