Compsim™

KEEL®

Knowledge
Enhanced
Electronic
Logic

Compsim LLC

Compsim is a “Technology Provider”

By Tom Keeley, President & Technology Visionary

Observation

- Observations:
  - The world is becoming more and more complex
  - There is more and more information (growing exponentially)
  - Everybody is under more cost pressures
- Hypothesis:
  - The only way to achieve government objectives is to automate more functionality
- Big Question:
  - What is prohibiting “everything” from being automated?

Historically

- Historically “man” created machines
  - To amplify strength
  - To operate faster
  - To improve quality
- For the military this meant
  - Those with the “biggest / fastest / most powerful” were dominant

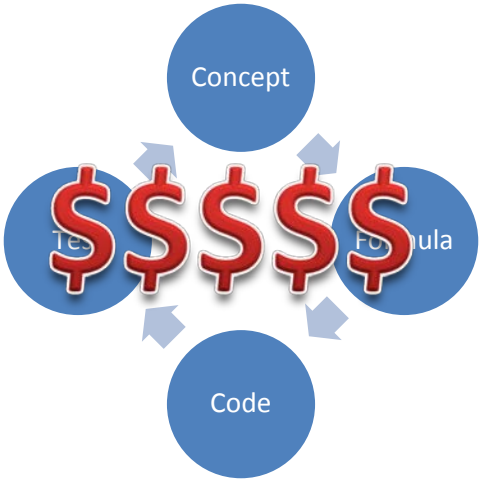
Do you think things will change?

Why isn't everything automated?
Enter the Information Age

- More information means more **$$$$**
  - Capture information
  - Validate information
  - Store information
  - Manipulate information
  - Move information
- Why
  - In order to make decisions and exert control

Automation = Programming

- Conventional IF | THEN | ELSE Programming
  - Costly to develop and maintain
  - Relatively little has changed in the last 50 years
  - Increase in both Lines of Code and **$$$**
  - Not economically feasible to keep up with demand
  - Development Model:
    - SME (Concept)
    - Mathematician (Formula)
    - Software Engineer (Code)
    - Test & Debug (repeat cycle until complete)



Alternatives

- Human Control
  - Lack of attention
  - Lack of situation awareness
  - Limited short term memory
  - Poor judgment
  - Having a bad day
  - Too many problems
  - Biased
  - Requires “individual training”
  - High maintenance
- Automation (Machine Control)
  - No attention problems
  - Not an issue (sensors everywhere)
  - Unlimited memory
  - Mass produced
  - Fast
  - **With KEEL Technology:**
    - **Explainable / Auditable Judgment and Reasoning**
    - **Facilitated with the KEEL “dynamic graphical language” (Tools)**

KEEL Technology

- The KEEL “dynamic graphical language”
  - Makes it “relatively easy” to address complex problem sets (dynamic, non-linear, inter-related, multi-dimensional)
- Create KEEL “cognitive engines” that are platform and architecture independent
- For deployment in adaptive, real-time devices and software applications
- Easy “code certification”!
- Extremely small memory footprint (no libraries)

KEEL Technology (Right Brain Computing)

- The ability to exercise judgment and reasoning has separated humans from computerized systems in the past.
- With KEEL Technology, the decisions and actions of a KEEL-based system can be “easily” (100%) audited and explained (when necessary).
- Eliminating the “Black Swan” costs!

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