



Steven J. McGee Distributed System Engineering Architect / Consultant / Patent applicant

June 2004 – March 2018 Simple Always Wins Concepts LLC SAW Concepts LLC

Defense Contractor for Validity Systems, SAIC International, MITRE, BAE Systems 1996 – 2002

Masters of Science Information Systems Western International University 3.85 GPA 93 - 96

United States Army Signal Corps Officer 11 years 82 – 93 / ROTC Full Scholarship Recipient

June 2003 – Present: Patent applicant USPTO 13/573,002: The Heart Beacon Cycle Time – Space Meter Adaptive Procedural Template (checklist of tools, processes, platforms, protocols... useful to form Distributed Autonomous Groups DAGS synchronized in time – space

Ecologically sustainable Economic Heartbeat for the Programmable Economy - [LINK](#)

Use Case: distributed systems engineering signaling, telemetry OPORD Annex X for the programmable economy & syntax lexicon, engineering system of systems framework

Universal event flash heartbeat message bus supporting geo-spatial, temporal, semantic – syntactic distributed systems synchronization [LINK](#) <https://bit.ly/2s6Fnav>

Quantum Random Number Beacon / Computing metrics, meters (Supreme Court AliceVs CLS Bank 2014 ruling compliant “claims may not direct towards abstract ideas”

Digital Nations need an Eco sustainable Economic Heartbeat with incentives systemically encoded into the programmable economy applying consistent time - space metrics, meters and syntax lexicon library. The German military made this suggestion circa 2003



The Heart Beacon Cycle Time - Space Meter Adaptive Procedural Template (checklist)  
 USPTO 13/573,002 Use Case: Ecologically sustainable economic incentives coded into the programmable tokenized economy - It's about Time - Space, syntax symbol set lexicon library supporting the Earth Intelligence A.I. EIN Network/ Noosphere

Keywords / tags: Ecology Eco incentives, econometrics, algorithms, consensus, interoperability, Universal Time Zone sync , stochastic UTZ harmonization for the programmable money, economy

The Heart Beacon Cycle Time - Space meter is a distributed system of systems engineering signaling -telemetry temporal, geo-spatial, semantic - syntactic sync & consensus foundation framework supporting the DAAE Distributed Autonomous Automated Economy Eco - Economic Heartbeat. It is time to establish an ecologically sustainable economic heartbeat... PROJECT BEACON: Reuse NATO's system of systems syntax lexicon OPSCODE brevity code structured data exchange, heartbeat micro to macro cycle Universal Time Zone UTZ sync to support the EIN Earth Intelligence Network neural net emulation & improve temporal, geo-spatial, syntactic - semantic consistency, interoperability among myriad programmable money, economy memes.

PROJECT Heart Beacon Eco Economic Epochs: Code Eco sustainable incentives into the world's programmable economic system of systems engineering framework reusing / leveraging NATO systems of systems engineering best practice. Reuse OPSCODE brevity codes mapped to message symbol sets essential to Artificial Intelligence / human interaction ( i.e., man — machine interface). The Heart Beacon Cycle Time — Space Meter USPTO 13/573,002 is an Adaptive Procedural Template - Checklist: Use Case: Eco Economic Epoch Heartbeats for the programmable economy. We can synchronize ourselves in time-space for common goals.



The Heart Beacon Cycle is an adaptive procedural template checklist of things, processes, tools, building blocks useful to form, maintain Eco-responsible trade federations. Each item in the procedural template checklist links to a detailed treatise. We can synchronize ourselves, our cities, towns, cyber-communities in time—space for a common purpose: shared, common, ecologically sound, responsible econometrics.

See the Law of Time organization's site and the 441 Time Cube described by the late Dr. Jose Arguelles LAW OF TIME [site http://lawoftime.org](http://lawoftime.org)

The Heart Beacon Cycle Time - Space meter is a sword to plowshares DAO Distributed Autonomous Organization project using NATO's Situational Awareness system of systems engineering framework, processes, procedures and internet building blocks to establish an Ecologically sustainable Economic Heartbeat, neural network emulation for the EIN Earth Intelligence Network and heartbeat sync pulse for a Universal Time Zone UTZ supporting a one world currency. It's syntax lexicon library of OPSCODE brevity codes used in programmable money, the programmable economy is descriptive of all things internet, internet of money down to the quantum computing, quantum blockchain level. a.k.a Project BEACON / Medium Article LINK <https://bit.ly/2s6Fnav>

Crypto economics needs a universal syntax lexicon digital base Artificial Intelligence A.I., quantum blockchain heartbeat beacon to synchronize, sample tokenized commodities across a stochastically harmonized UTZ Universal Time Zone supporting an Earth Intelligence Network EIN see Robert David Steele's #UNRIG proposal @ <http://robertdavidsteele.com>

Economic #RESET is a mathematical certainty. Do we RESET the global system of systems as is or will we re-engineer using NATO system of systems engineering framework standing on the shoulders of giants to convert swords to plowshares?

Eco Economic Heartbeat: It's TIME: IF Climate Change causes a drop in crop commodity food production by 20–25 % while population continues to grow, THEN it follows that this condition will become a matter of national security. It's TIME to implement an Ecologically Sustainable Economic Heartbeat ELSE face > greater chaos by not leveraging proven system of system structured data exchange tactics.

IF climate change causes a drop in crop commodity by 20–25 % while population grows, THEN this condition will become a matter of national security. THEN this will require revisiting Belgian Economist Bernard Lietaer's TRC Trade Reference Currency ELSE face > chaos LINK <http://lietaer.com/2010/01/terra/> If, when climate change reduces crop commodity production while population continues to rise, it follows that this could become a National Security issue—then, an ecologically sustainable economic heartbeat would be obviously needed. Why wait until crisis, DEFCON 2 stage?

The Heart Beacon Cycle Time — Space Meter USPTO 13/573,002 Adaptive Procedural Template: Use Case: Eco Economic Epoch Heartbeats for the programmable economy / money.

We can synchronize ourselves, our cities, towns, cyber-communities in time — space for a common purpose: shared, common, ecologically sound, equitable... econometrics.

Given space travel risks, navigation based on consciousness / telepathy (use of symbols not words), a consistent syntax lexicon to communicate with #UFO EBO's that are likely

Artificial Intelligence AI powered drones is reuse of DARPA - NATO's structured data exchange that maps data element OPSCODES to symbols with over 300 message sets

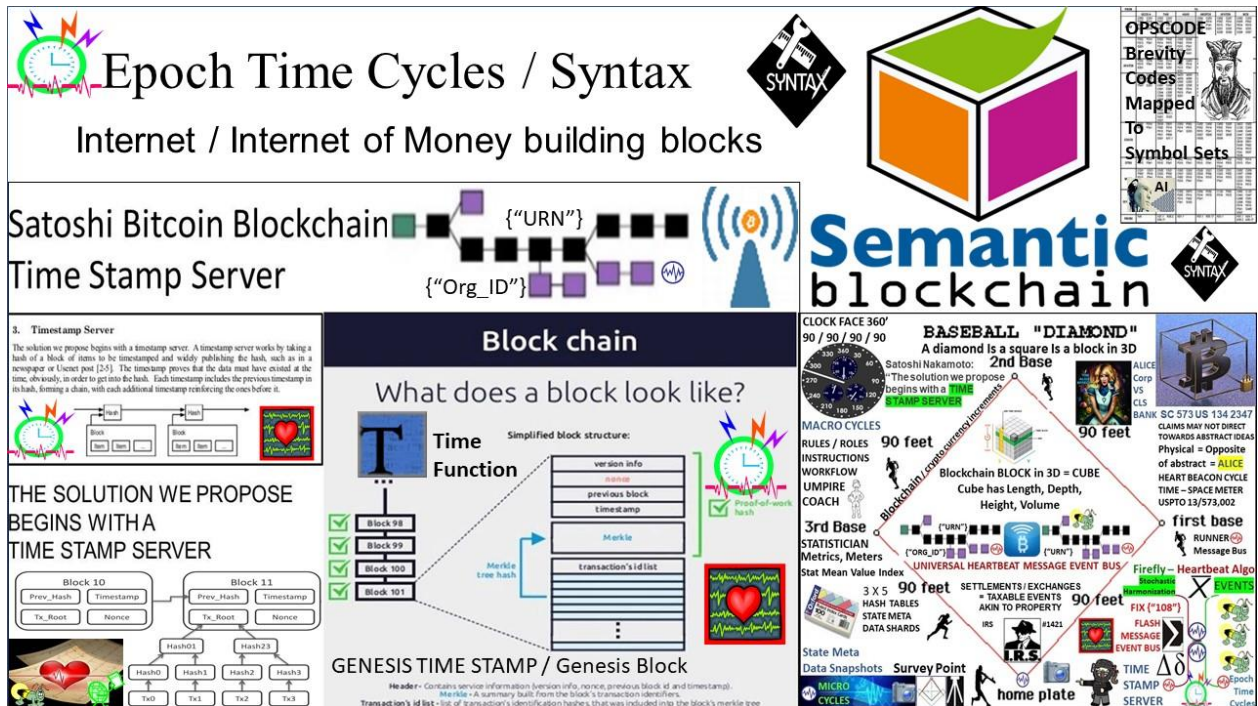
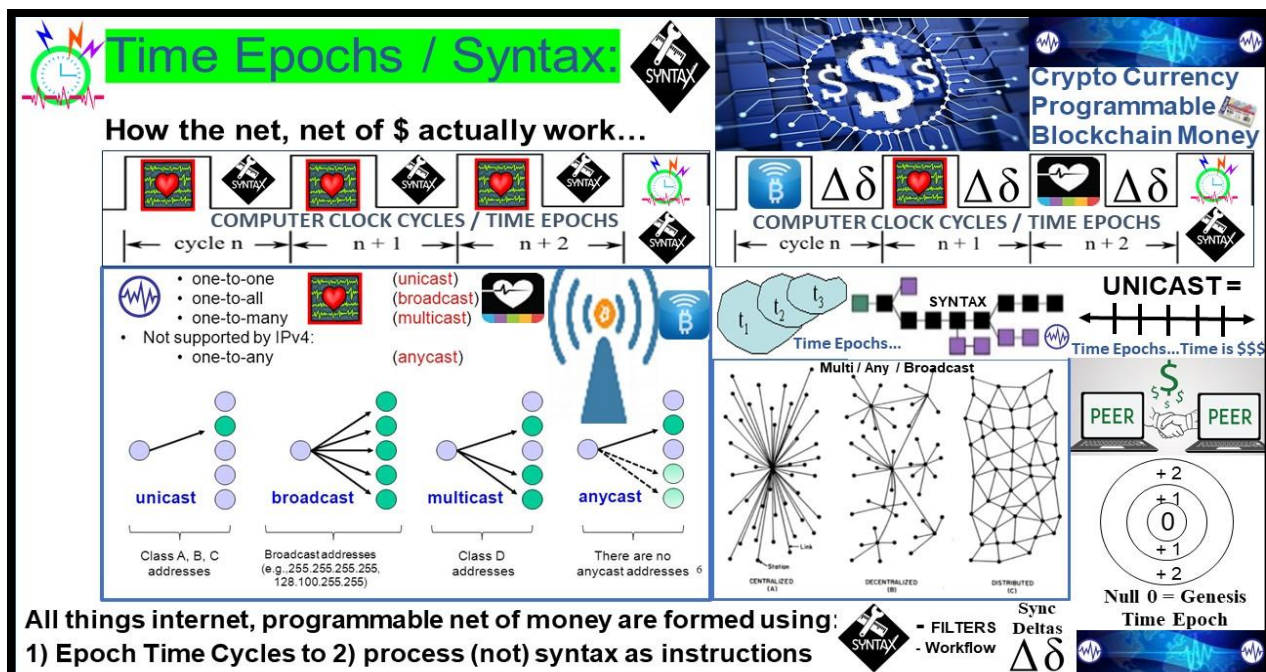


FIGURE 2: Semantic Web Blockchain

All things #internet, net of #money #blockchain #cryptocurrencies rely on unicast, multicast—like DoD / NATO's #DAO Distributed Autonomous Organization system of systems—a term coined by the RAND Corporation circa 2000. Programmable money's improvements are in cryptography. The net works the same way for all & everything.

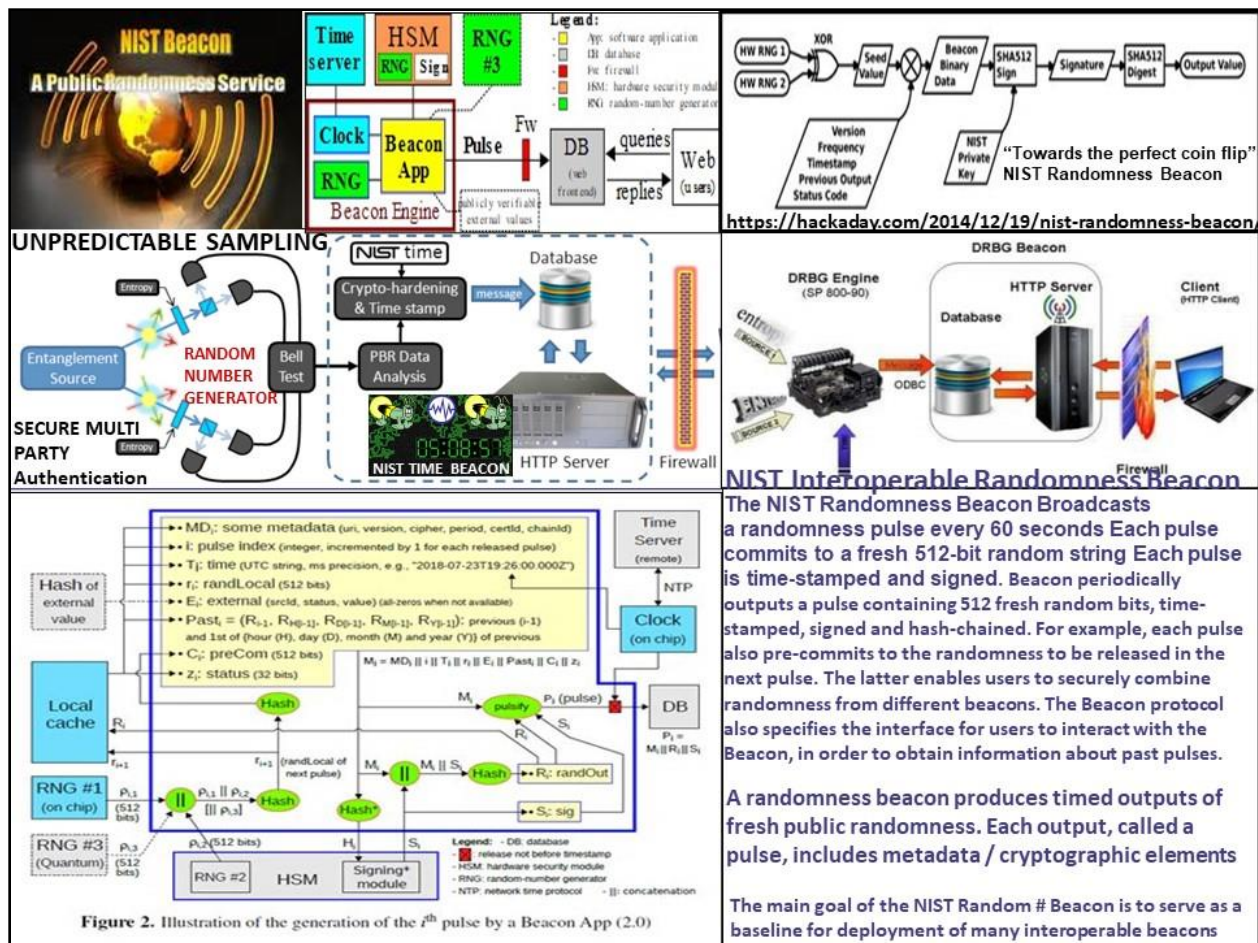




**Figure 3: How the programmable internet and internet of money work**

The **Internet**, net of programmable **money** is formed using 1) Time Cycle epochs used to parse (not) syntax as instructions for workflow and (routing) filters.

This is key to cross meme interoperability and consensus among myriad cryptocurrency, blockchain memes and artificial intelligence systems.



**Figure 4: NIST's Quantum Random Number / Time Beacons for programmable \$\$**

All computing relies on bits, the smallest unit of information is encoded as an "on" state or an "off" state, as a 1 or a 0, in some physical medium.

In quantum computing, a **qubit** or **quantum bit** (sometimes **qbit**) is a unit of quantum information—the quantum analogue of the classical binary bit. A qubit is a **two-state quantum-mechanical system**, such as the **polarization** of a single **photon**: here the two states are vertical polarization and horizontal polarization. In a classical system, a bit would have to be in one state or the other. However, quantum mechanics allows the qubit to be in a **superposition** of both states at the same time, a property that is fundamental to quantum computing. QUBIT: <https://en.wikipedia.org/wiki/Qubit>





Fig 5: NIST Quantum Random Number Beacon / USPTO 13/573,002

Many in the programmable money space think that quantum computing will obsolete the crypto currency #blockchain. In my opinion, the opposite is true - the programmable #economy will be anchored by quantum computing NIST's Quantum Random Number Beacon enhanced using the Heart Beacon Cycle Time – Space Meter Adaptive Procedural Template checklist





Figure 6: NIST Quantum Random # Beacon / USPTO 13/573,002 Heart Beacon Time-Space meter

Quantum Random Number Generator: The NIST method generates digital bits (1s and 0s) with photons, or particles of light, using data generated in an improved version of a landmark 2015 NIST physics experiment. That experiment showed conclusively that what Einstein described as "spooky action at a distance" is real. Researchers process the spooky output to certify and quantify the randomness available in the data and generate a string of more random bits. USPTO 13/573,002 describes a universal firefly inspired heartbeat message event bus that captures, reports events (firefly meme)

USPTO 13/573,002 holds that time filtered and spatially metered reports are comprised of state meta-data snapshot / heartbeat message / heartbeat (K00.99) sync delta messages where state meta data is harvested during micro-cycles then posted / displayed during longer macro-cycle epoch time cycles. US SCOTUS Alice ruling is complied with by novel description of water drop in pond / Paul Revere memes referential to several internet TCP/IP treatises related to hop by hop counts, geo spatial-temporal conventions comprising universal metrics and meters for all things internet











#Economic #RESET is a mathematical certainty. Do we #RESET the global system of systems as is or do we re-engineer our world using NATO / DARPA / DOD system of systems engineering framework standing on the shoulders of giants to convert swords to plowshares? #blockchain #econometrics

IF climate change causes a drop in crop commodity by 20–25 % while population grows, THEN this condition will become a matter of national security. THEN this will require revisiting Belgian Economist Bernard Lietaer's TRC Trade Reference Currency ELSE face chaos by not leveraging proven system of systems & tactics



FIGURE 9: FIREFLY INSPIRED HEARTBEAT SYNCHRONIZATION / World Economic Heartbeat

Firefly Inspired Heartbeat Synchronization Algorithm:

- 1) Consensus 2) Neural Network emulation 3) Event Bus for Bitcoin transactions as taxable events
- 4) Stochastic Harmonization 4) Collect stock exchange events for MMID Dark pool limits

Firefly inspired Heartbeat Synchronization: in a paper entitled Firefly-inspired Heartbeat Synchronization in Overlay Networks by the University of Bologna Trento Italy along with the University of Szeged, Hungary: "Heartbeat synchronization strives to have nodes in a distributed system generate periodic, local "heartbeat" events approximately at the same time.



The heartbeat synchronization protocol for overlay networks is inspired by mathematical models of flash synchronization in certain species of fire flies. Nodes send flash messages to their neighbors when a local heartbeat triggers. Fireflies adjust the phase of their next heartbeat based on incoming flash messages using an algorithm inspired by mathematical models of fire-fly synchronization. Heartbeat synchronization strives to have nodes in a distributed system generate periodic, local “heartbeat” events approximately at the same time. It differs from classical clock synchronization in that nodes are not interested in counting cycles and agreeing on a ID of a current cycle. There is no requirement regarding the length of a cycle with respect to real time as long as a length is bounded and all nodes agree on it eventually.

[LINK http://sawconcepts.com/index/id22.html](http://sawconcepts.com/index/id22.html)



FIGURE 10: TERRA Trade Reference Currency / Crypto Micropayments – Demurrage fees

Nobel Prize winning Economist Milton Friedman’s K% rule is what I call an “economic heartbeat” K-Percent Rule. DEFINITION of ‘K-Percent Rule’. The K-Percent Rule was a proposal by economist Milton Friedman that the central bank should increase the money supply by a constant percentage every year. The K-Percent Rule proposes to set the money supply growth at a rate equal to the growth of real GDP each year. K-Percent Rule — Investopedia <http://www.investopedia.com/terms/k/k-percent-rule.asp>



Satoshi Nakamoto: "#Bitcoin is intended to be paired with the market place" "the blockchain stores references to market indexes"

**Demurrage:** term used in currency trading to denote cost of currency ownership and/or storage. cost of carrying money... considered superior to interest payments, as it stimulates currency circulation and economic growth. "In a physical sense, demurrage represents a delay that occurs during the transportation of goods via truck. When this happens, the trucking firm delivering the product can opt to pay a flat fee to the receiver to cover any loss incurred as a result of the delay. This fee can be assessed on an hourly basis. Or in the case of gold, demurrage is simply the costs associated with storage of bouillon.  
[LINK https://investopedia.com/terms/d/demurrage.asp](https://investopedia.com/terms/d/demurrage.asp)

Thomas Edison's Monetary Option: [LINK:](https://www.supermoney.com/2014/06/thomas-edisons-view-money/)  
<https://www.supermoney.com/2014/06/thomas-edisons-view-money/>



FIGURE 11: ECONOMIST MILTON FRIEDMAN's K % RULE / Algorithmic Economic Regulation

Economist Milton Friedman predicted the rise of a computer capable of automatically adjusting the inflation rate of money. This is precisely what we see in the case of bitcoin, as a regulatory algorithm intelligently adjusts the mining difficulty to make the issuance of blocks more or less easy depending on the demand for network hashing power. No money system we have seen to date can claim it is chronologically regulated. The



universal construct of time is the backbone of the cryptocurrency digital economy. Investopedia K % Rule [Source: https://investopedia.com/terms/k/k-percent-rule.asp](https://investopedia.com/terms/k/k-percent-rule.asp)

Satoshi Nakamoto's Bitcoin key building block is a time stamp server. **Satoshi Nakamoto: "Bitcoin is intended to be paired with the market place" "the blockchain stores references to market indexes"**

Globalization involves multi-national corporate entities vying for control of regional resources. It follows that a proven strategy to identify, track, and monitor resources regionally within the global economic matrix is needed. Bitcoin cryptocurrencies as programmable money and the internet's heartbeat, heartbeat messages timed to harvest data during micro economic cycles then aggregated into a composite economic heartbeat pulse which is a clear and present opportunity to realize the purpose of Economist Milton Friedman's K% rule / Heart Beacon Cycle Ecologically Sustainable Economic Epochs for trade equity, ecologic sustainability, economic stability.

**FROM**

**GCCS-A**

**ASAS**

**FEDERATED MISSION NETWORKING**

**MCS**

**SIOP**

**Blockchain Standardization**

**M2M**

**Coder's Guide**

**ALPHA-NUMERIC BREVITY CODES**

**USMTF / XML MTF FORMATTED**

**MESSAGE CATALOG = 300 + messages**

**info exchange sets using common, CONSENSUS Message Text Formats**

**MTFs. MTFs specify <CONTENT> / info agreed by group consensus presenting information in a logical, well specified unambiguous layout resulting in a highly efficient info payload to overhead ratio**

**CODE GUIDE**

**ATDS**

**MCS**

**INFOCON**

**5 4 3 2 1**

**INFORMATION CONDITION**

**"SYMBOLS RULE THE WORLD"**

**Information Elements Roles**

- COI Determination Org Interaction
- Search and Discovery
- Ontologies STANDARDS
- Taxonomies REFERENCE
- Metadata Attributes / Filters

**FFUDN: Field Format Unit Designator #**

**FFIRN Field Format Index Reference #**

**Structured military messaging ID's**

**messages, message sets, data element, symbol fields**

**BY Form Field Position & NUMBER**

**Firefly-Heartbeat Flash Messages**

**PROCESS MESSAGE BY PRECEDENCE**

**UNIVERSAL EVENT / ALERT MESSAGE BUS**

**MESSAGE CATALOG 300 + Use Cases**

Object Categories	Examples	Location	Movement	Identify	Status	Activity	Intent
<b>OOB</b>	<b>SYNTAX LEXICON</b>	lat/long	spd/hdg	country / alliance, type/class	readiness	targeting, reconitering	COA
<b>Infrastructure</b>	Comm, power, transportation, water/sewer	network, grid	throughput, flow rates	name, part-of relationships	BDA, op levels	repair, threats/acts	expansion plans
<b>Sociological</b>	Culture, religion, economic, ethnic, government, history, languages	temples, historic structures					
<b>Geophysical</b>	Terrain, weather, climatology, oceanography, astrometry	feature lat/long, alt/dpth					

**Data Elements: entity, attribute, relationship equivalents**

**HEARTBEAT MESSAGE = K00.99**

**OPERATIONAL NODES / ACTIVITIES**

DATA	SYSTEM FUNCTIONS	PERFORMANCE
11.4 - Classification	11.8 - Kinematics	
11.4.1 - Category	11.8.1 - Pos / Vel / Acc (PVA)	
11.4.1.1 - Confidence Level	11.8.1.1 - Acceleration	
11.4.1.1.1 - Angular	11.8.1.1.1 - Angular	
11.4.1.2 - Estimate Type	1.1.2 - Linear	
11.4.1.2.1 - Alternative	1.2.1 - Estimated	
11.4.1.2.2 - Evaluated D	1.2.2 - Observed	
11.4.1.3 - Value	1.2.3 - Predicted	
	1.2.4 - Smoothed Data	
<b>SYMBOL</b>	<b>Friend</b>	<b>Neutral</b>
<b>2525C</b>	<b>Partner</b>	<b>Competitor</b>
11.4.1.3.5 - Surface	1.4.1 - Horizontal	
11.4.2 - Platform / Point / Feature Type	1.4.2 - Vertical	
11.4.3 - Specific Type	1.4.3 - Confidence	
11.4.4 - Type Modifier	1.4.4 - Bearing Angle	
11.4.5 - Unit	1.4.5 - Covariance Matrix	

Figure 12: Syntax Lexicon Library Rosetta Stone adapted swords to plowshare from NATO

Common syntax library of various Message Text Formats MTF to enable universal signaling / telemetry among a system of systems is ESSENTIAL. Decades of research at the taxpayer's









Figure 14: UTZ TIME ZONE STOCHASTIC HARMONIZATION / SYNCHRONIZATION

## Universal Time Zone (UTZ) Proposed Clock

At the United Nations on May 20, 2003, President, George W. Bush, announced a proposal to unify all the world's time zones into a single Universal Time Zone (UTZ)

We can synchronize ourselves, our cities, towns, cyber-communities in time — space for a common purpose: shared, common, ecologically sound, equitable... econometrics.

Eco Economic Epochs: Eco sustainable incentives for the programmable Economy - It's about TIME

PROJECT Heart Beacon Eco Economic Epochs: Code Eco sustainable incentives into the world's programmable economic system of systems engineering framework reusing NATO systems of systems engineering best practice. Reuse OPSCODE brevity codes mapped to message symbol sets essential to Artificial Intelligence / human interaction ( i.e., man — machine interface).

The Heart Beacon Cycle Time - Space Meter USPTO 13/573,002 is an adaptive procedural template / checklist of ideas, methods, processes, procedures, algorithms, tools... used to organize diverse peoples speaking many different languages through the universal language of symbols into Distributed Autonomous groups organized in time - space to achieve common goals.

Use Case: Eco Economic Epochs Time-Space Meter ecology Eco incentives, consensus, interoperability, sync, stochastic UTZ harmonization for the programmable money, economy

Papers / Presentations: Github: <http://github.com/Beacon-Heart>

THESIS: All things internet, internet of programmable money are formed using:

1. Time epochs created by oscillating quartz crystal based silicon chips
2. Syntax used / not used as programming instructions during epoch time cycles

Time epochs / syntax: two main building blocks in creating the Artificial Intelligence A.I. powered global economic system of systems / Earth Intelligence Network EIN / Web 3.0 and the programmable economy in terms of temporal consistency, interoperability, and consensus.

PROJECT: Code Eco sustainable incentives into programmable economic system of systems engineering framework reusing / leveraging NATO systems of systems engineering best practice.

1. Reuse OPSCODE brevity codes mapped to message symbol sets enabling Artificial Intelligence / human interaction ( i.e., man — machine interface).
2. Apply lessons learned (bandwidth discipline, interoperability, OPTEMPO sync cycles... intrinsic to NATO SOP swords to plowshares following German military proposal use cases circa 2003.

NATO has invested 30 years of mapping OPSCODE brevity codes to symbology / symbols / symbol sets contained in 300 plus message set / use cases as part of Battlefield digitization, Net Centric Warfare NET Enabled Operations NEO NETOPS. Blockchain, crypto currency developers are recreating, reinventing this decades old, tedious, time intensive, labor intensive, expensive... wheel.

**#economic** collapse#economic reset#econometrics#programmable economy#programmable money#blockchain#cryptocurrencies#sustainable development

Angel List: [https://angel.co/heart\\_beacon](https://angel.co/heart_beacon)

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PAYPAL: PayPal.Me/EcoEconHeartbeat

PIN INTEREST: <http://pinterest.com/mcgee3077/>

Github: <http://github.com/Beacon-Heart>