

Governing Energy

$(Ax = b) > C^4$

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Most Type-A business personalities believe that they are at the top of the game when it comes to multi-tasking.ⁱ Their constant sense of urgency in a very competitive environment can cause them to over book commitments and some may be seen rushing from one meeting to another.

However, there is an argument to be made that humans do not multi-task well at all. If we were good at, why do most school zones bar talking on a cell phone while driving?ⁱⁱ Moreover, as previously noted in this series distracted airline pilots have missed critical items in routine checklists resulting in the loss of life in some cases.ⁱⁱⁱ

Furthermore, this series has addressed the increasing complexity of regulatory compliance management required from all members of the supply chain.^{iv} However, we all know our world has additional dimensions of complexity as well.

Writing about the management of large organizations, the consulting firm, McKinsey has identified four types of complexity firm's face.^v We would like to extend that archetypal to field operations and specifically *asset integrity management* and its governance model.

Type	Definition
Imposed	Typically outside direct control of the organization, such as regulations, laws and outside stakeholder intervention, e.g., investor activists
Inherent	Intrinsic to the process or project, it cannot be shed without abandoning the activity
Designed	Resulting from decisions made regarding the set of choices available based on technology, preference, or other policy criteria
Unnecessary	Generally caused by misalignments or poor management practices

With the demands on management to “juggle” many tasks and requirements in an increasingly multifaceted climate, new managerial tools are needed. It is important to note that simply simpler solutions are not satisfactory. It is essential that the High Fidelity of complexity not be lost.

Decision makers at all levels require Ergonomic (Human Factor^{vi}) systems that do not try to abridge complex situations, but enable individuals and teams to understand the full dimension of the issue at hand. This model was first identified by the author in his doctoral dissertation.^{vii}

Solving the title: This is a mathematical expression/equation. $Ax = b$ is an expression for simultaneous equations.^{viii} C^4 is an expression of the four types of Complexity multiplied by each other.^{ix} It is meant to suggest that the “amount” of Complexity can be quite high.

Pure mathematicians will forgive this “play-on-math”. However, the title suggests that tools such as simultaneous equations can provide solutions to high complexity environments and hence, the use of the “greater than (>)” operator.

How does your organization simplify the decision-making process without losing high fidelity?

About the Author

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End Notes

ⁱ McLeod, S. A. (2011). *Type A Personality - Simply Psychology*. Retrieved from <http://www.simplypsychology.org/personality-a.html>

ⁱⁱ <http://www.thenewatlantis.com/publications/the-myth-of-multitasking>

ⁱⁱⁱ Governing Energy. (2012, August 2). *Flaps & Slats*. Tulsa: PennEnergy.

^{iv} Governing Energy. (2012, September 4). *It's Very Complicated*. Tulsa: PennEnergy.

^v http://www.mckinsey.com/insights/organization/putting_organizational_complexity_in_its_place

^{vi} Proctor, Robert W. and Van Zandt, Trisha. (2008). *Human Factors in Simple and Complex Systems*. (Second Edition). Boca Raton: CRC Press. p. 9.

^{vii} Shemwell, Scott M. (1996). *Cross Cultural Negotiations between Japanese and American Businessmen: A Systems Analysis, (Exploratory Study)*. Unpublished doctoral dissertation, Nova Southeastern University, Ft. Lauderdale.

^{viii} <http://www.math.uconn.edu/~pellico/Lecture%20%20T%207-10.pdf>

^{ix} <http://www.mathsisfun.com/definitions/exponent.html>