



Information Age Assessment Applied to Anti-Terrorism/Force Protection

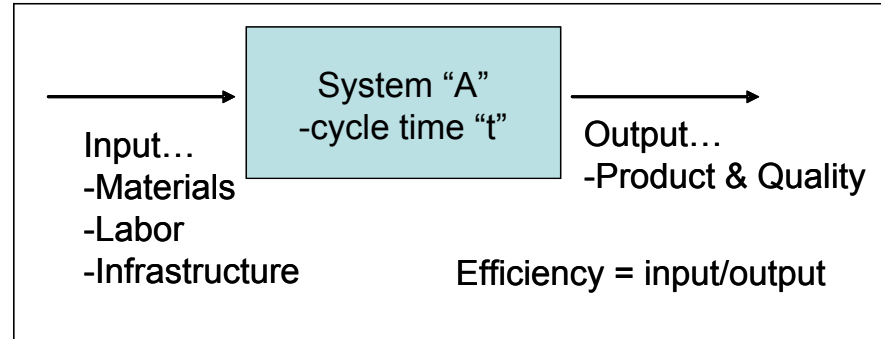
Introducing to AT/FP:
The Warfighter's Associate

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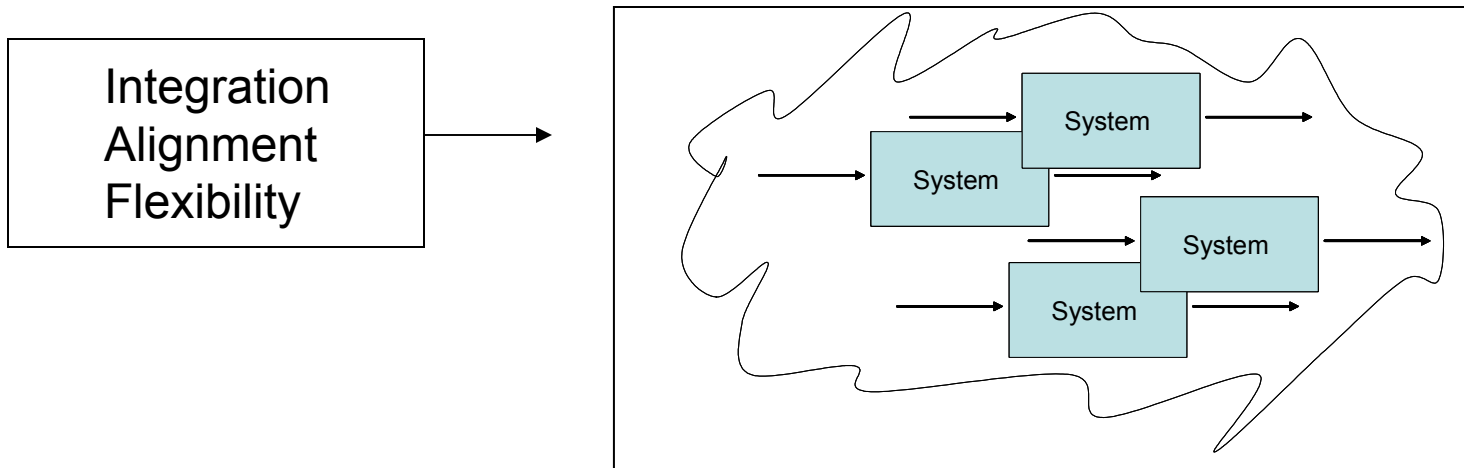
Information Age Assessment Framework

- The “Industrial Age” ROI Measures
 - Quality (“Better”)
 - Timeliness (“Faster”)
 - Efficiency (“Cheaper”)
- The “Information Age” ROI Measures
 - Integration
 - Integration in Connectivity:
 - Integration in Meaning:
 - Integration in Rules:
 - Alignment
 - Flexibility

Framework Scope



Metrics for a System vs. A "System of Systems"



Interrogatories vs. Assessment Measures

	who	what	when	where	why	how
Quality		x			X	
Timeliness			x			
Efficiency		x				x
Integration: Connectivity				x		
Integration: Meaning		x				
Integration: Rules					X	x
Flexibility		x	x		X	
Alignment	x				X	

Note: Interrogatories from Zachman Framework

Warfighter's Associate

- Long Term Concept
- Supervised Autonomous Robot
- Natural Language Interface
- Relatively Unconstrained Mobility
- Seamless Indoor/Outdoor Navigation
- Compatible Frame of Reference

Simultaneous Localization and Mapping



Example Metrics

- Quality
 - Percentage of intrusions detected.
 - False Positive rate of intrusions detected.
 - Kilometers of surveillance performed without mechanical failure.
- Timeliness
 - Percentage of required on-the-spot log-ins made within allowable time windows.
 - Response time to an intrusion report.
 - Percentage of time Associate is available for security detail on time.

Example Metrics

- Efficiency
 - Operating costs of a squad over a period of time.
 - Life-cycle costs of a squad.
 - Historical or projected injury rates.

Example Metrics

- Integration in Connectivity
 - Percentage of internetworking among the detail.
 - Percentage of desirable external nodes that are connected.
- Integration in Meaning
 - Percentage of reporting nodes using standard symbols and formats.
 - Percentage of war fighters with the same situational awareness.
 - Percentage of message content using standard nomenclature and judged to be unambiguous by the recipients.

Example Metrics

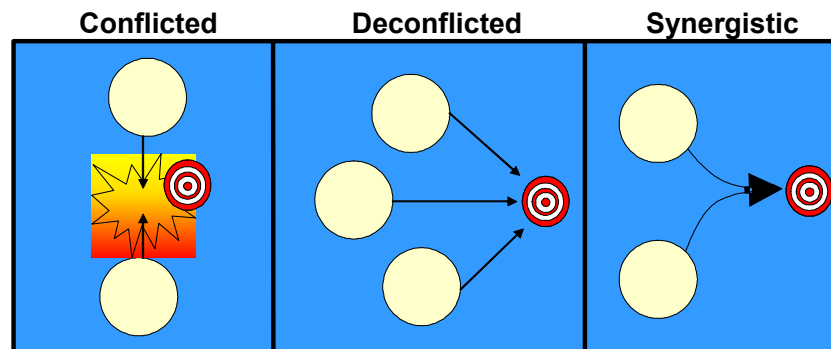
- Integration in Rules
 - Responsiveness of Organization to a change in the number or nature of intrusions
 - % correct responses to particular threats
 - The responsiveness of the organization to reports of missing or unaccounted stockpiles.

Example Metrics

- Flexibility
 - Reduction in the number of single points of failure that have mission impact.
 - Ability to increase or decrease scale of operations.
 - Variety of functional modules available
 - Variety of tasks that can be performed

Example Metrics

- Alignment
 - NCO-CF Synchronization



Attribute	Definition
Synchronized Actions	Proportion of actions that are conflicted, deconflicted, or synergistic
Synchronized Entities	Proportion of force entities whose positions are conflicted, deconflicted, or synergistic

Attribute	Metrics
Synchronized Actions	-1 = conflicted, 0 = deconflicted, 1 = synergistic
Synchronized Entities	-1 = conflicted, 0 = deconflicted, 1 = synergistic

Thank You!



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