

Systems Thinking  
Institute LLC

# Conquering the Complex

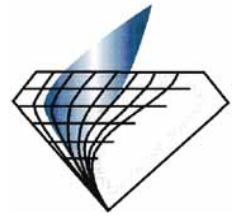
Using a Scalable Systems Analysis  
model to speed up innovation

across the enterprise

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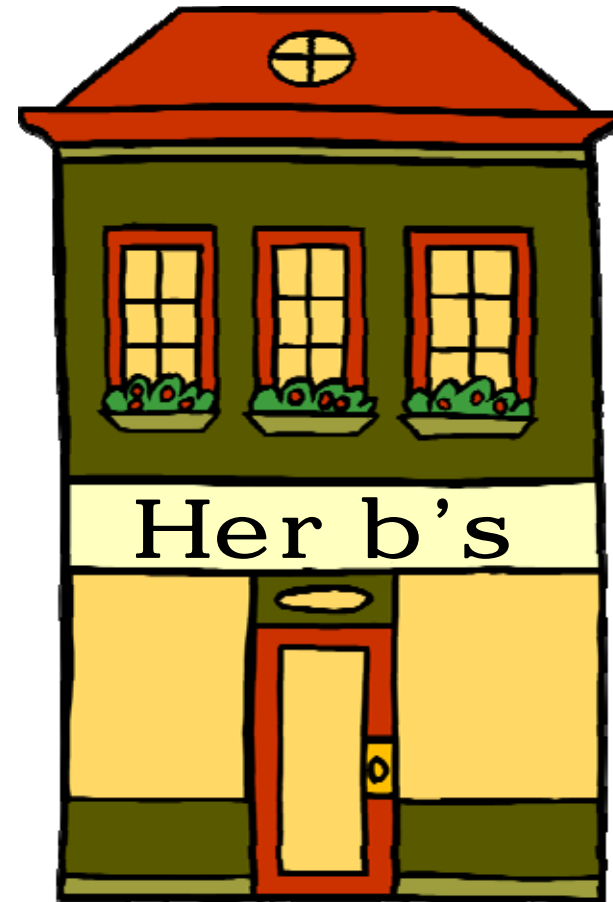
22 Nov 09



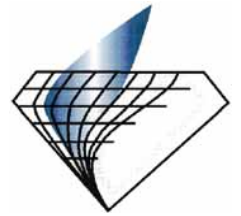
# Let's visit Herb

## ■ Background:

Herb's Hazard Hamlet is vertically integrated bakery/greenhouse, they do lots of custom work in interior landscaping and decorative botanicals, featuring edible art. They make or grow everything from the plants to the pots they're grown in.

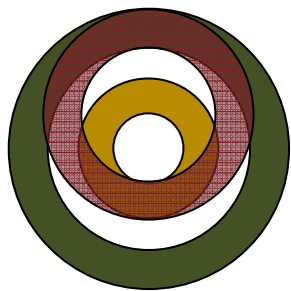


# Herb's is a-hurtin': Drastically lower yields

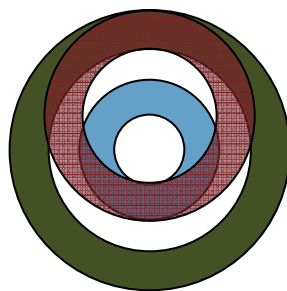


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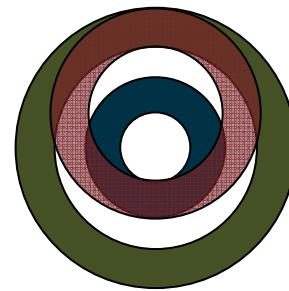
## ■ Meet the players



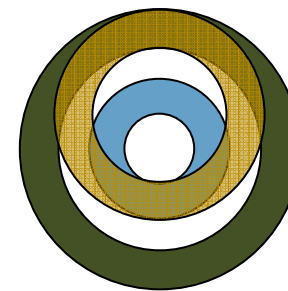
CEO



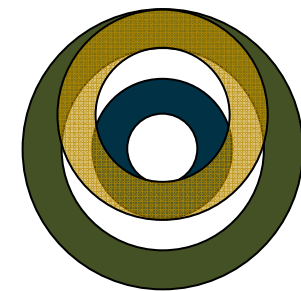
COO



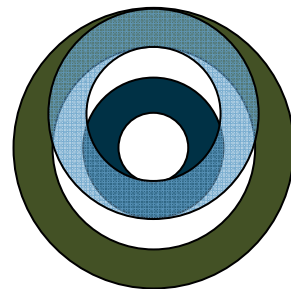
CFO



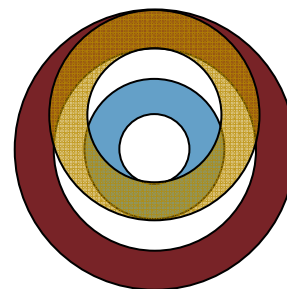
CIO



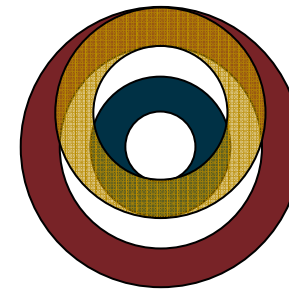
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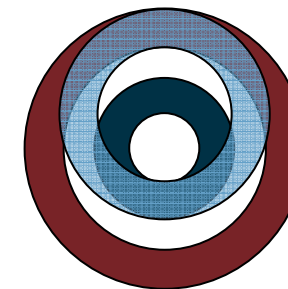
Ops



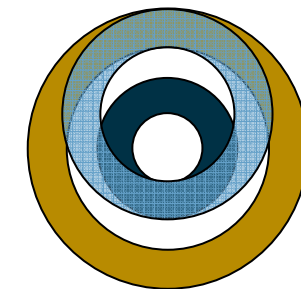
HR



HSE

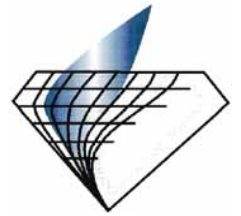


QA



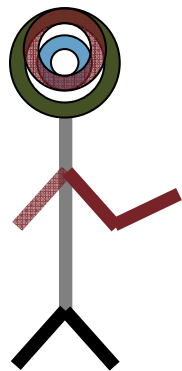
Intern

# COO: “Harvesting Hurt” from lower yields



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- We're harvestin' a heapin' helpin' o'hurt from drastically lower process yields across multiple lines of business.

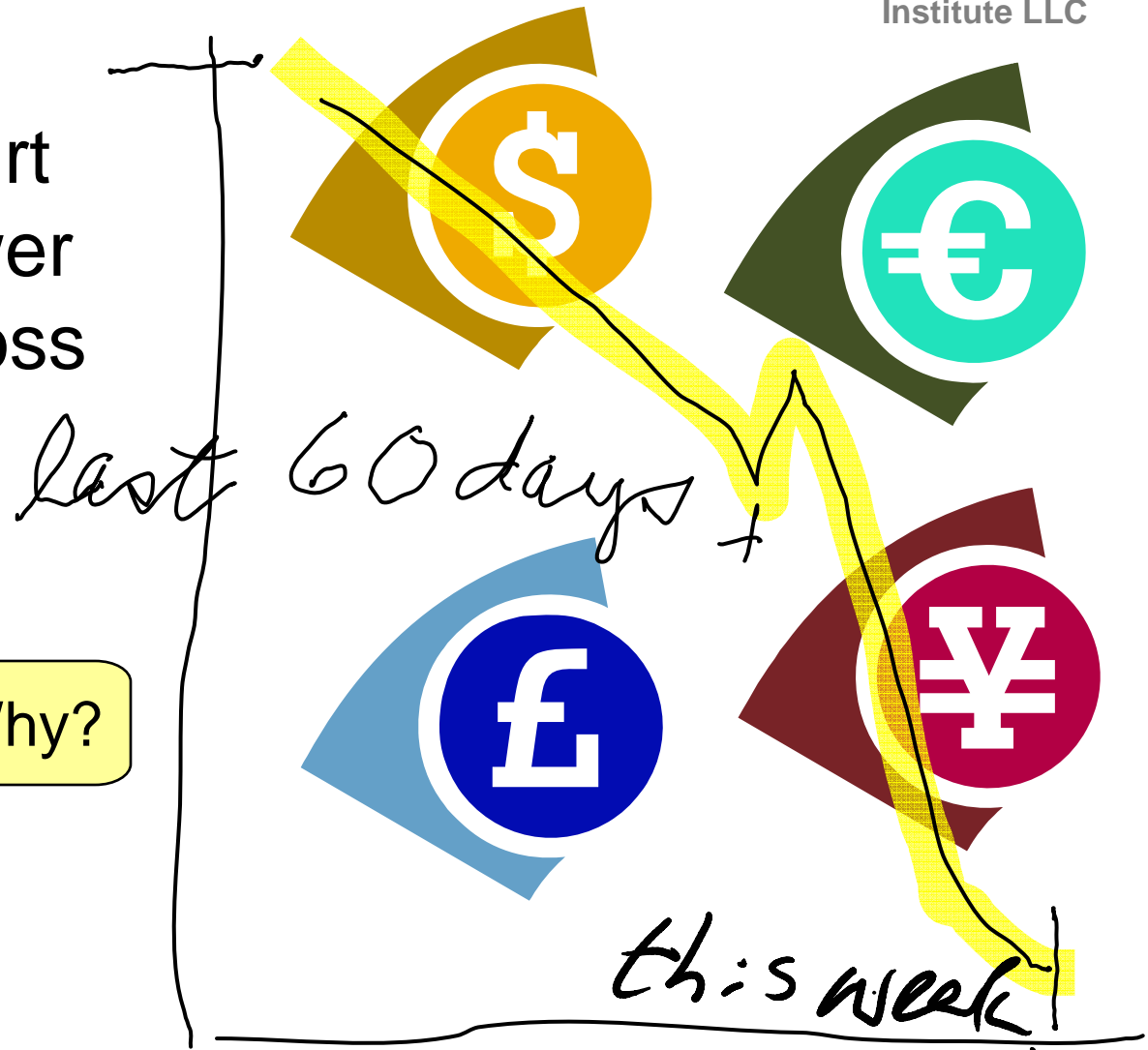


Albert, COO

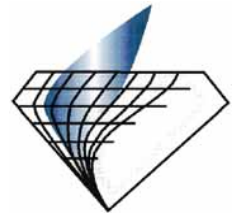


Dave, CEO

Why?

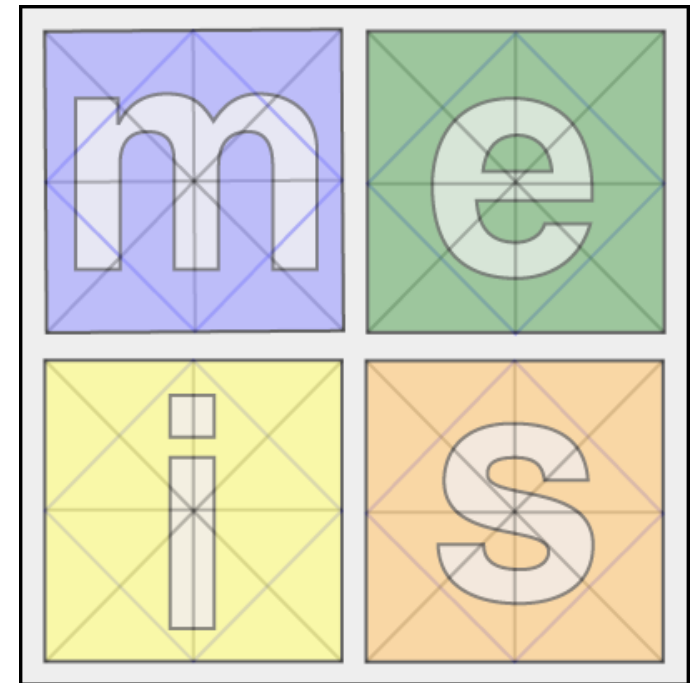
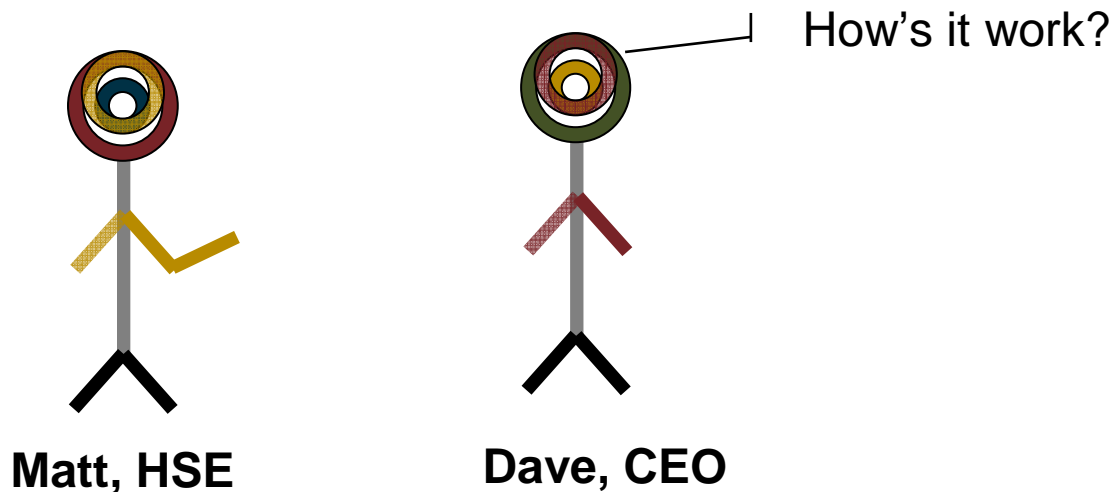


# HSE: Current process checks not working

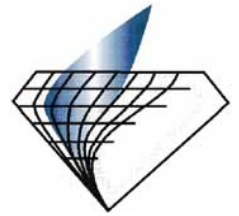


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- Based on workers' physical conditions, our current process checks and safety protocols aren't working. A new tool called Systemkey™ might help us uncover new insights on how to solve this.

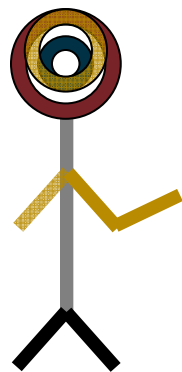


# HSE: 5-step process, find residual risk

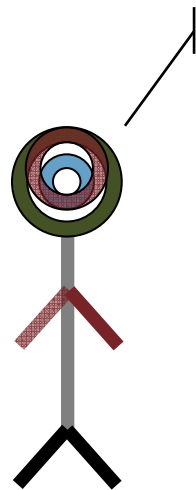


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- We step through a 5-part sequence and it spits out results that allow us to filter out the common and find the residual risk.

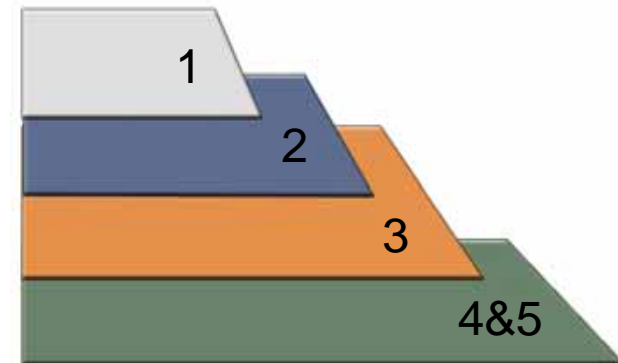


**Matt**

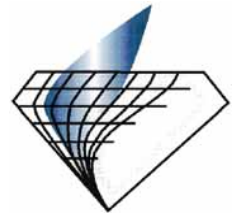


**Albert, COO**

What's that  
mean in  
English?

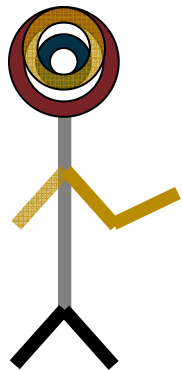


# HSE: New way to see

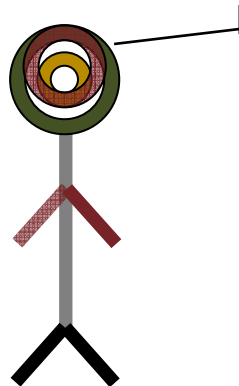


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- Basically it means that Systemkey can give us a new way to look at our existing operations to see what we've obviously been missing. Fact is, operator error is not credible here. Mickey & Jerry are two of the most experienced and conscientious team players we have.



**Matt**

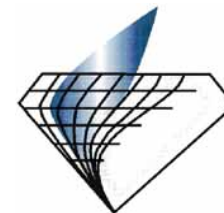


**Dave, CEO**

Let's get  
started!

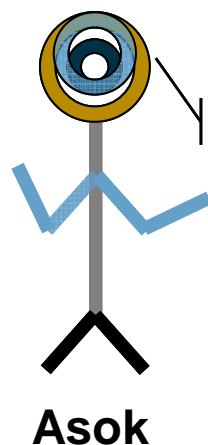
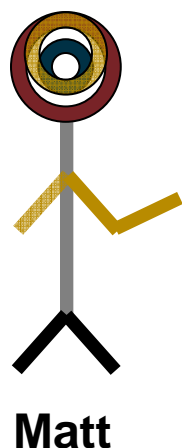


# HSE: -Information

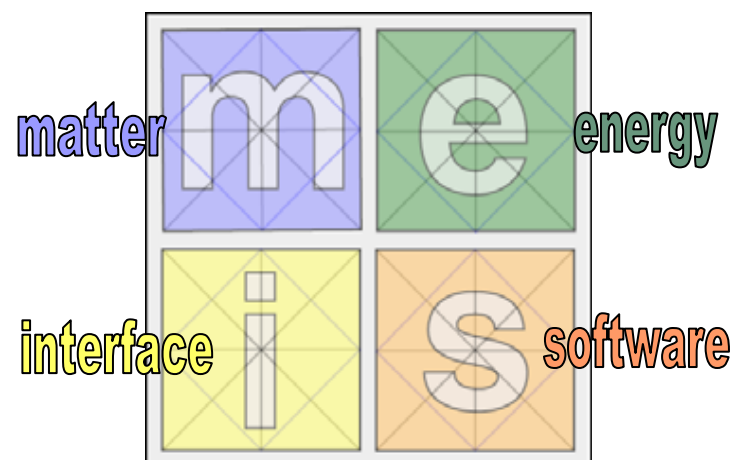


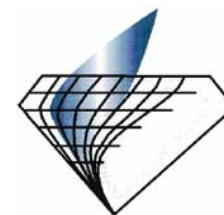
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- Ask about or examine all the information that passes through the system. Because Systemkey already has a CMMI<sup>®</sup>-style formal process structure build into it, we can assign Asok the intern to do the grunt records work and interviews while the senior people manage the day-to-day business.



That's my  
life...

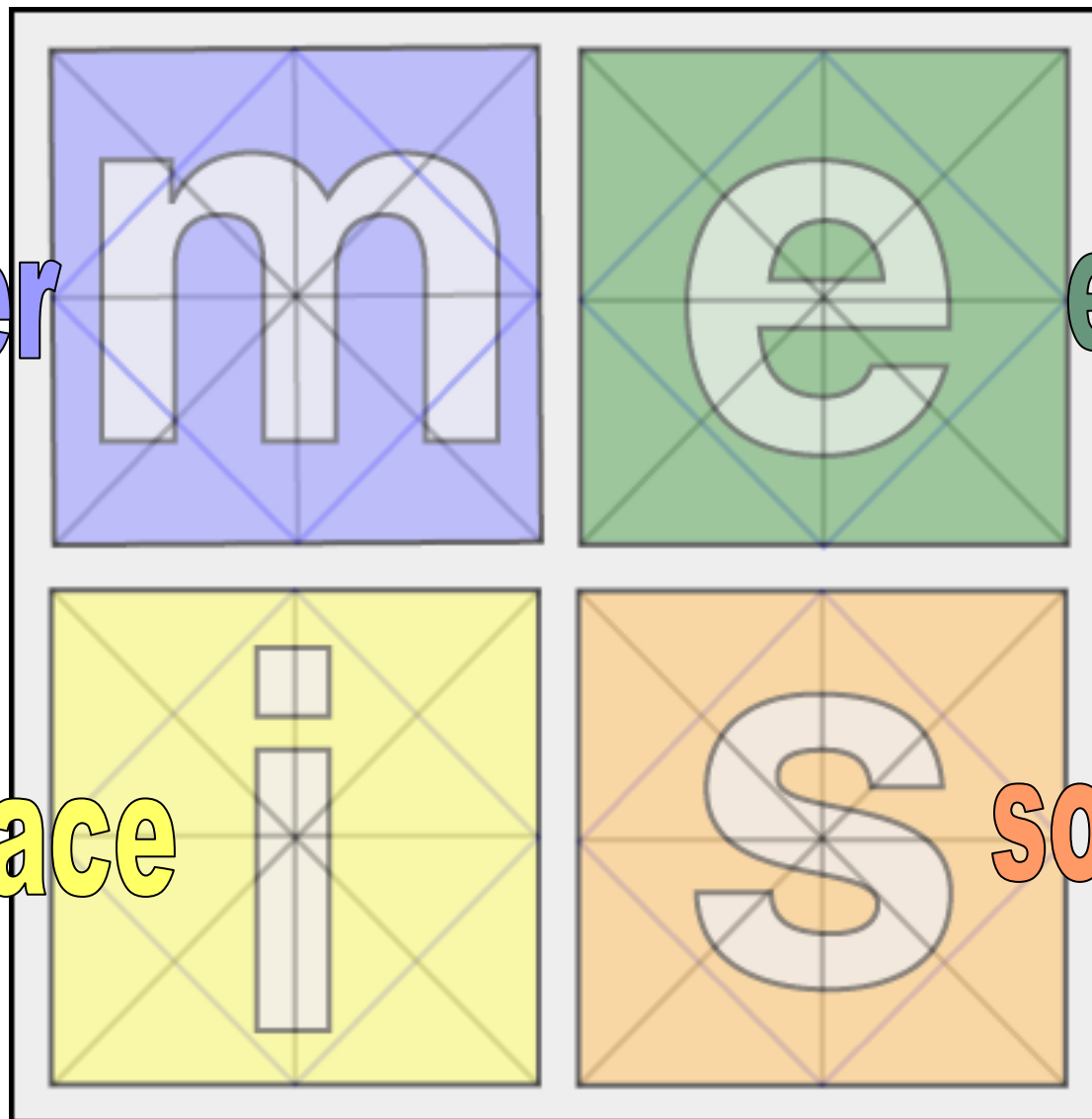




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# A four element model from nature

matter

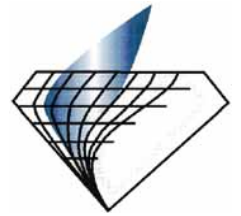


energy

interface

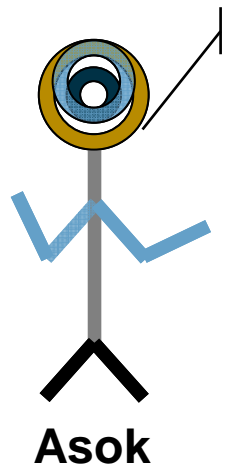
software

# Team: Working the process

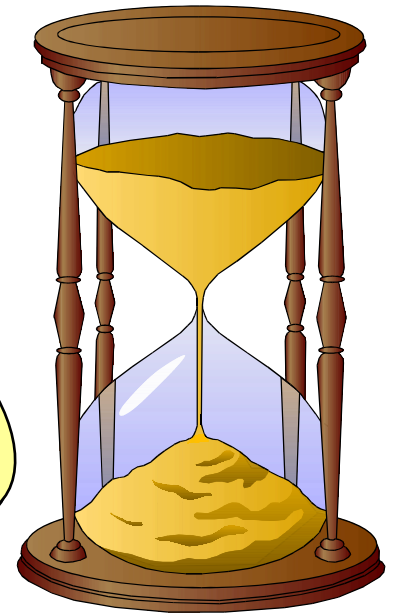
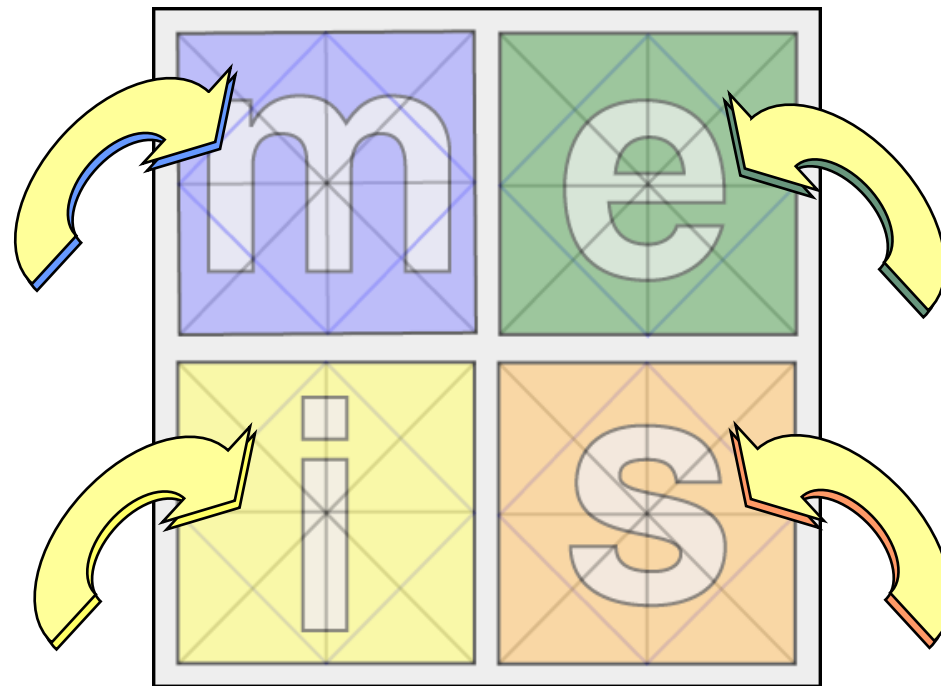


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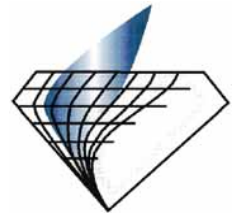
- Asok interviews and documents per the model's rigorous nested questions.



Where were  
you on the  
night of  
Jan 25th,  
1958?  
*...wonder if  
Perry  
Mason got  
started  
this way?*

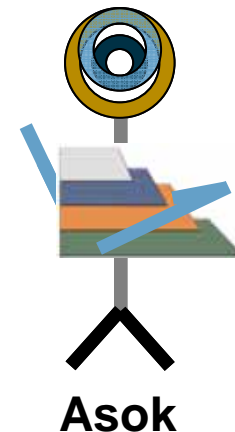
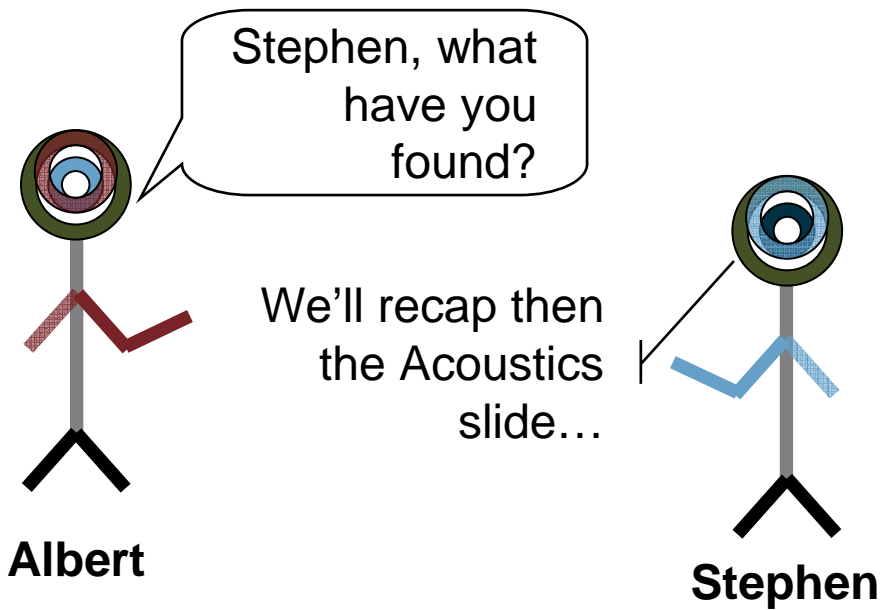


# COO: Like a Bulldog

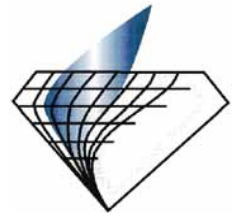


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- I was pretty skeptical at first, but Asok was like a bulldog! Anytime someone gave him a "talk to the hand," he just smiled and said, "have the hand talk to the process."

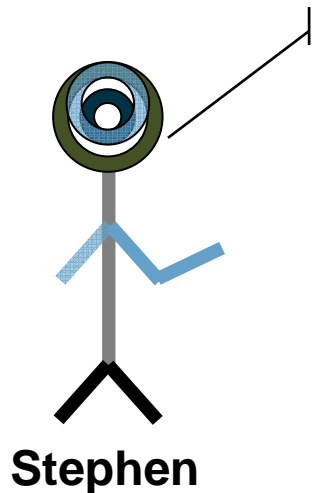


# Ops: Acoustic Signatures



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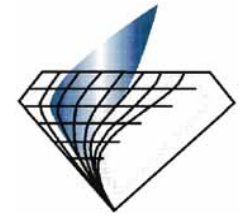
- When Asok covered Interface-Human-Ergonomics, to ask about Mick & Jer's last physical, neither of them had a current one on file.



Once we did an audiogram...

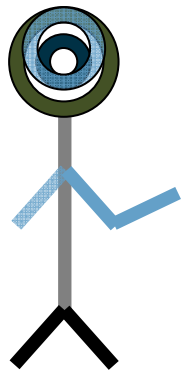
<b>Constituent RPN</b>	4.8	5.4	0.6	15.552	
Alarm acoustic signature is masked by other machinery noise.	8	9	1	72	<b>II-A</b>
<b>Constituent RPN</b>	0.6	0.8	0.1	0.048	
Alarm too soft for desired range	6	8	1	48	<b>III-B</b>
<b>Constituent RPN</b>	2.4	0.9	0.3	0.648	
Staff hearing loss due to prior events (military)	8	3	1	24	<b>II-D</b>

# Ops: An audiogram



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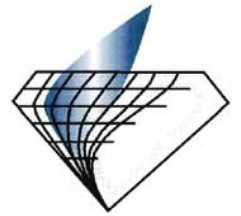
- Once we did an audiogram, we realized they had several frequencies they're nearly deaf to. None of the freq losses are in the vocal range, so we might never have found it without the Systemkey model guiding us to ask the right questions.



Stephen

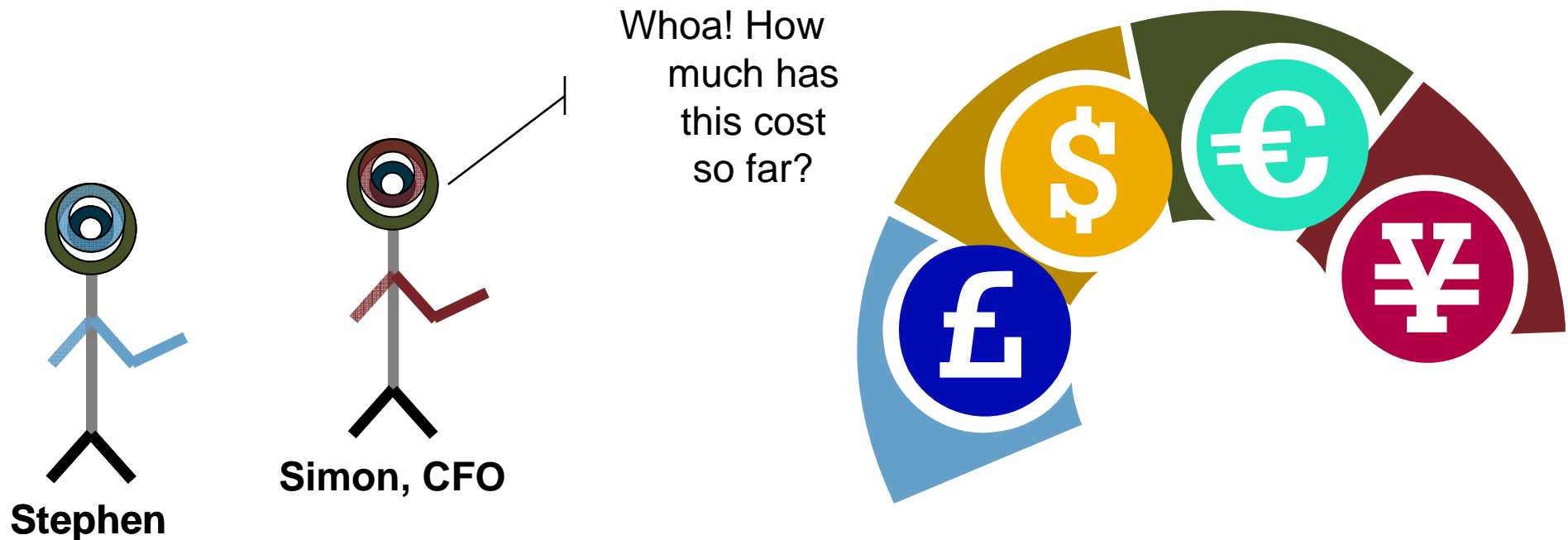
<b>Constituent RPN</b>	4.8	5.4	0.6	15.552	
Alarm acoustic signature is masked by other machinery noise.	8	9	1	72	II-A
<b>Constituent RPN</b>	0.6	0.8	0.1	0.048	
Alarm too soft for desired range	6	8	1	48	III-B
<b>Constituent RPN</b>	2.4	0.9	0.3	0.648	
Staff hearing loss due to prior events (military)	8	3	1	24	II-D

# Ops: -Transmission-Reactive

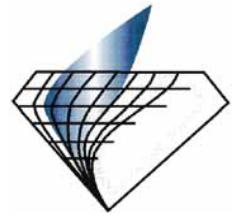


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- Energy-Transmission-Reactive gets a little more esoteric in that it asks us to describe all energy sources and their interactions.

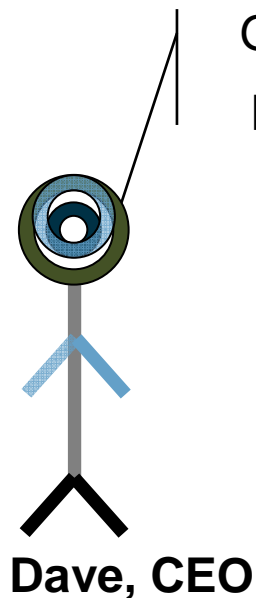


# CEO: Won't be in Biz for long...



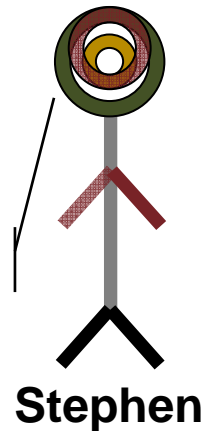
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- Simon I agree that the analysis takes time and resources, but we're losing almost a quarter of our gross down the tubes in scrap every month. If we don't get to the bottom of this, we won't be in business for long.

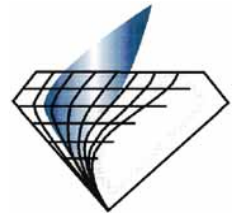


Go ahead Steve,  
please continue.

Thank you,  
Dave

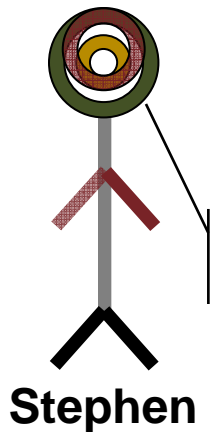
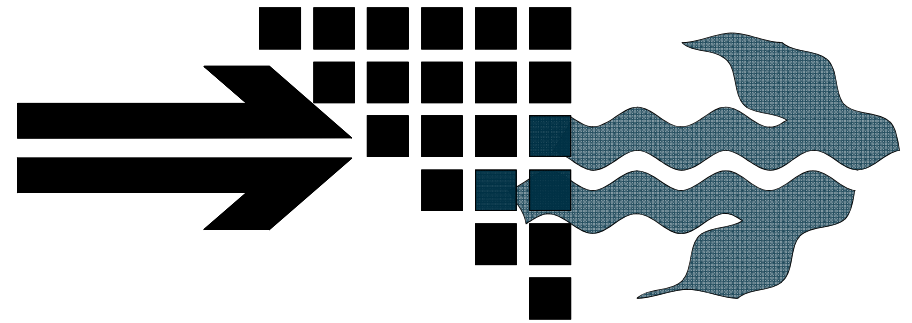


# Ops: measuring apples not oranges...



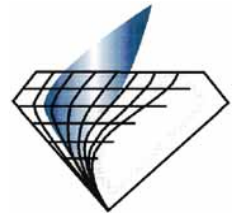
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- Using Systemkey turned out to be a good way to make sure that we were measuring apples not oranges.



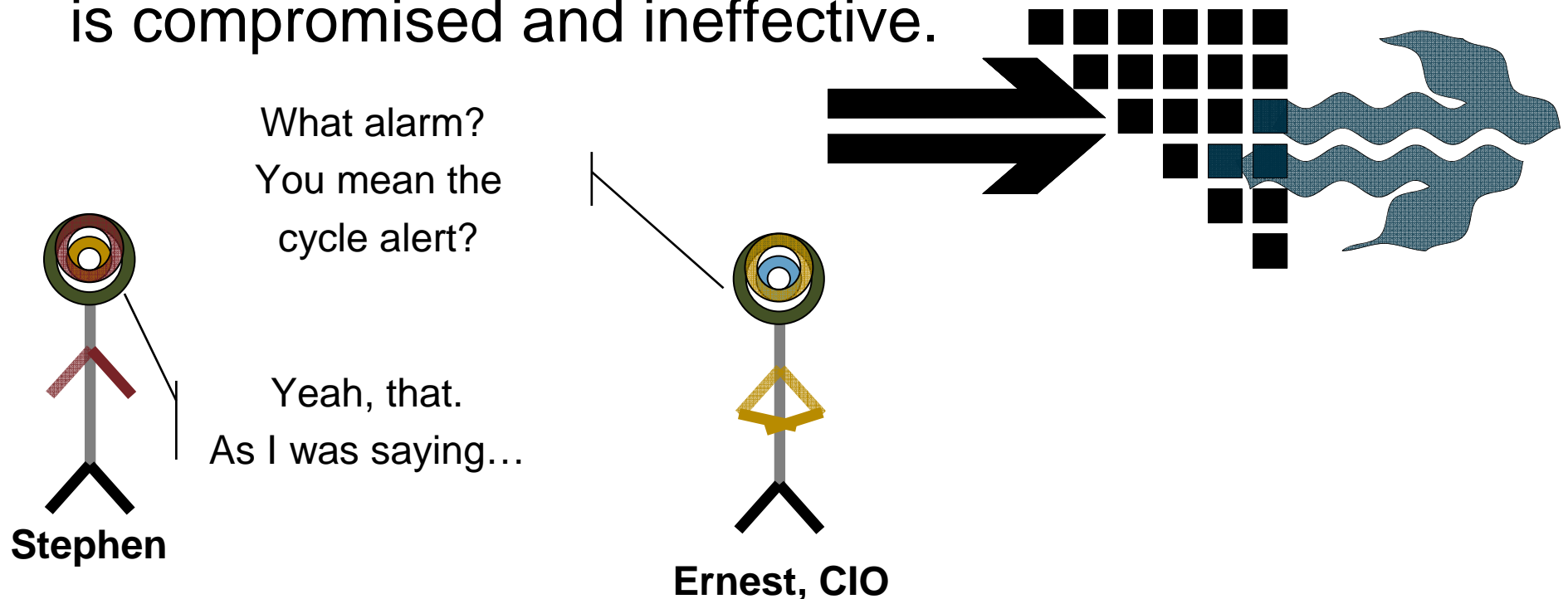
We discovered...

# Ops: Cycle Alert is compromised...

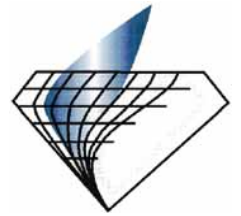


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- We discovered two different machines' acoustic signatures resonate at different harmonics with the alarm so you don't pick it out over the noise. In other words, the alarm is compromised and ineffective.

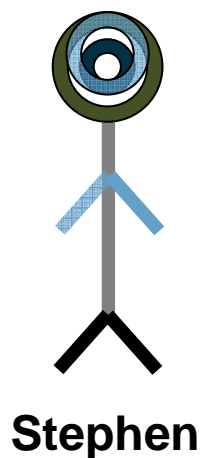


# Ops: Too far away to hear

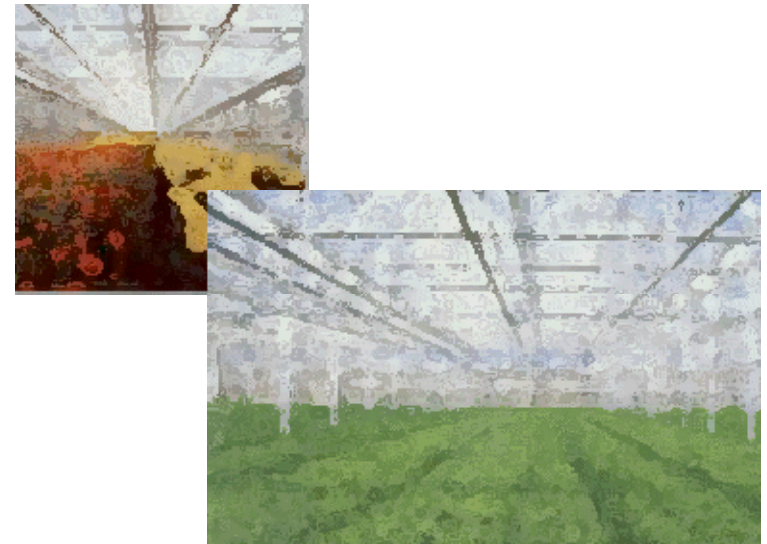
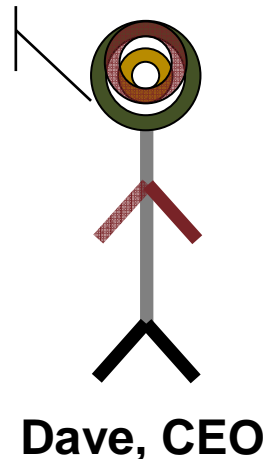


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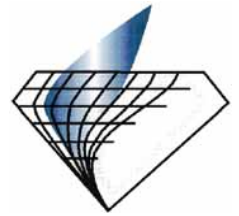
- As I was saying, from specific equipment testing, we also identified that the cycle alert volume is too low to be heard from the expected (current reduced staff) work locations.



Steve, button this  
up for us.

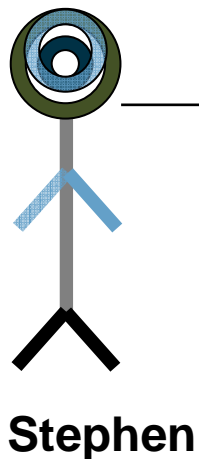


# Ops: Triple play...

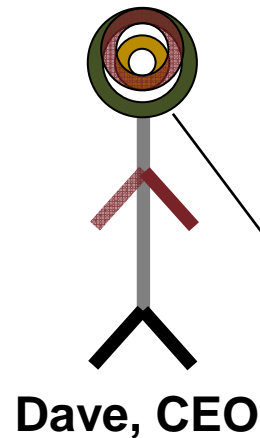


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- Basically Sir, it's a triple play:
  - Mickey & Jerry are deaf to the specific frequency of the cycle alert.
  - Even if they weren't, the idler pump and the sandwich valve have an acoustic signature, (like a noise fingerprint) that combines with the noise of the cycle alert so that even a person with average hearing would have near zero chance of hearing the cycle alert go off. Add the third strike...

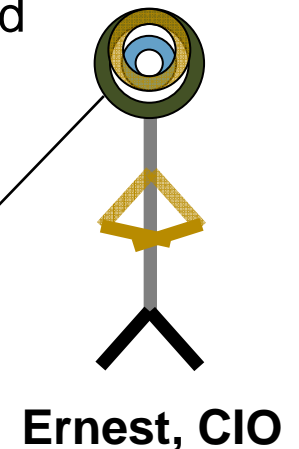


Oh yeah, right.  
As I was saying...

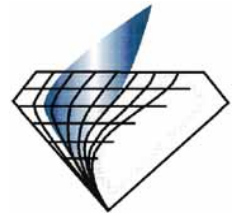


You don't have  
strikes in a triple  
play.

Ernest, take a chill pill, I'm very  
interested in this...

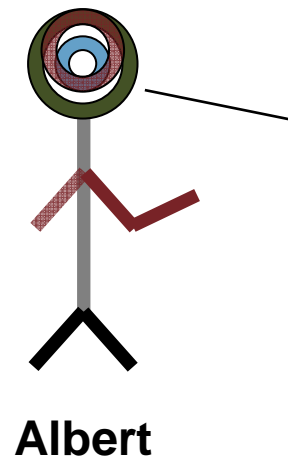
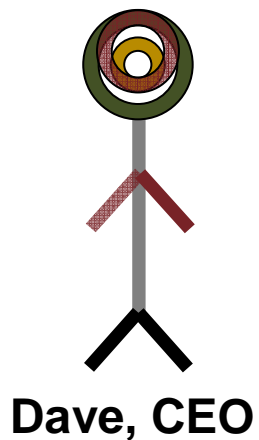


# CEO: Conquering a complex problem



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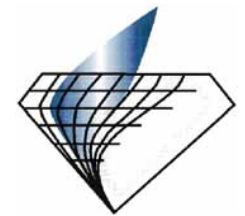
- I'm very interested in this Systemkey thing. I've never seen such a complex problem get solved so easily.



Believe me Dave, it wasn't easy. Straight-forward, intuitive, almost turn-the-crank, yes, but it still takes doing the work.

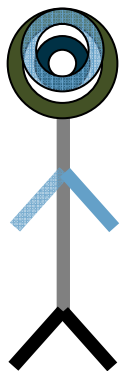


# Ops: Timeline conflicts with alert volume

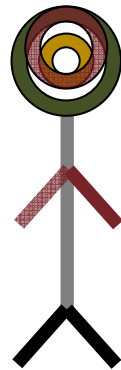


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- Well, the third tag if you will, is that with our current manning, whichever one, Mick or Jer is on shift, the cycle alert volume is set below the level any average person would hear it at the distance the timeline calls for them to be in the new combined task cycle.

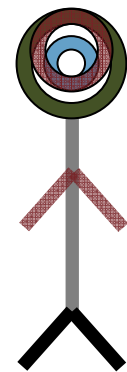


**Stephen**



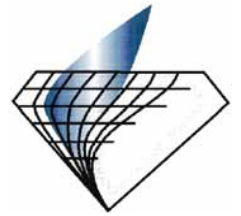
**Dave, CEO**

Oh, Al, no offense meant to you,  
Steve or any of your people.  
Steve, please continue.



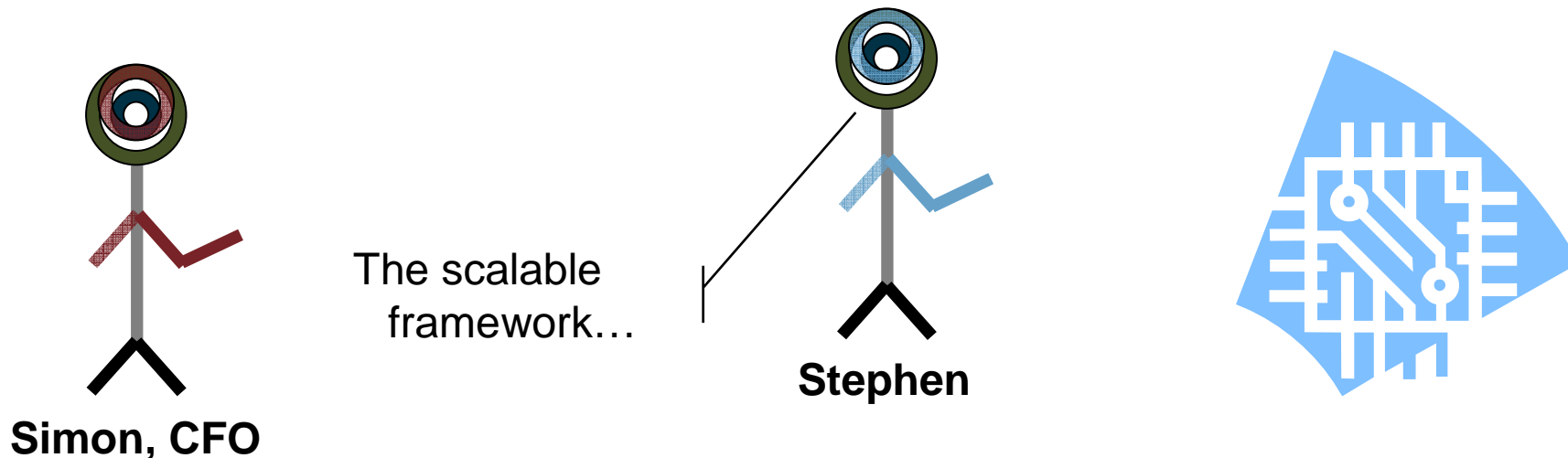
**Albert**

# CFO: Testing & Analysis?

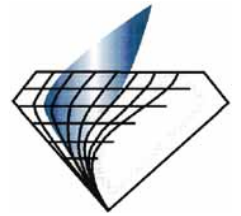


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- So Stephen, forgive me if jumped the gun before, I'm just shocked at how much testing and analysis you've done. You've always carped about that before. What's different this time?

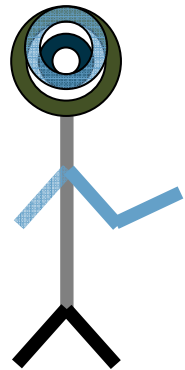
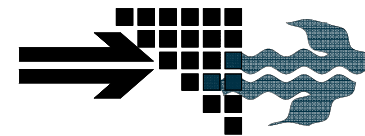


# Ops: Scalable framework

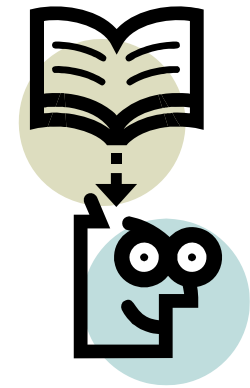


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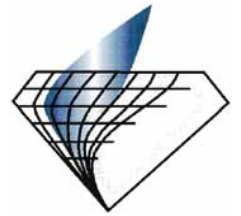
- The Systemkey difference is that we have a scalable framework to manage all this data. Whether it's acoustic signatures, staff discipline issues or thermocouple calibration, Systemkey handles all of it seamlessly and the free software that comes with the seminar we can even tailor for our processes. Our people can change basic stuff on the fly.



Stephen

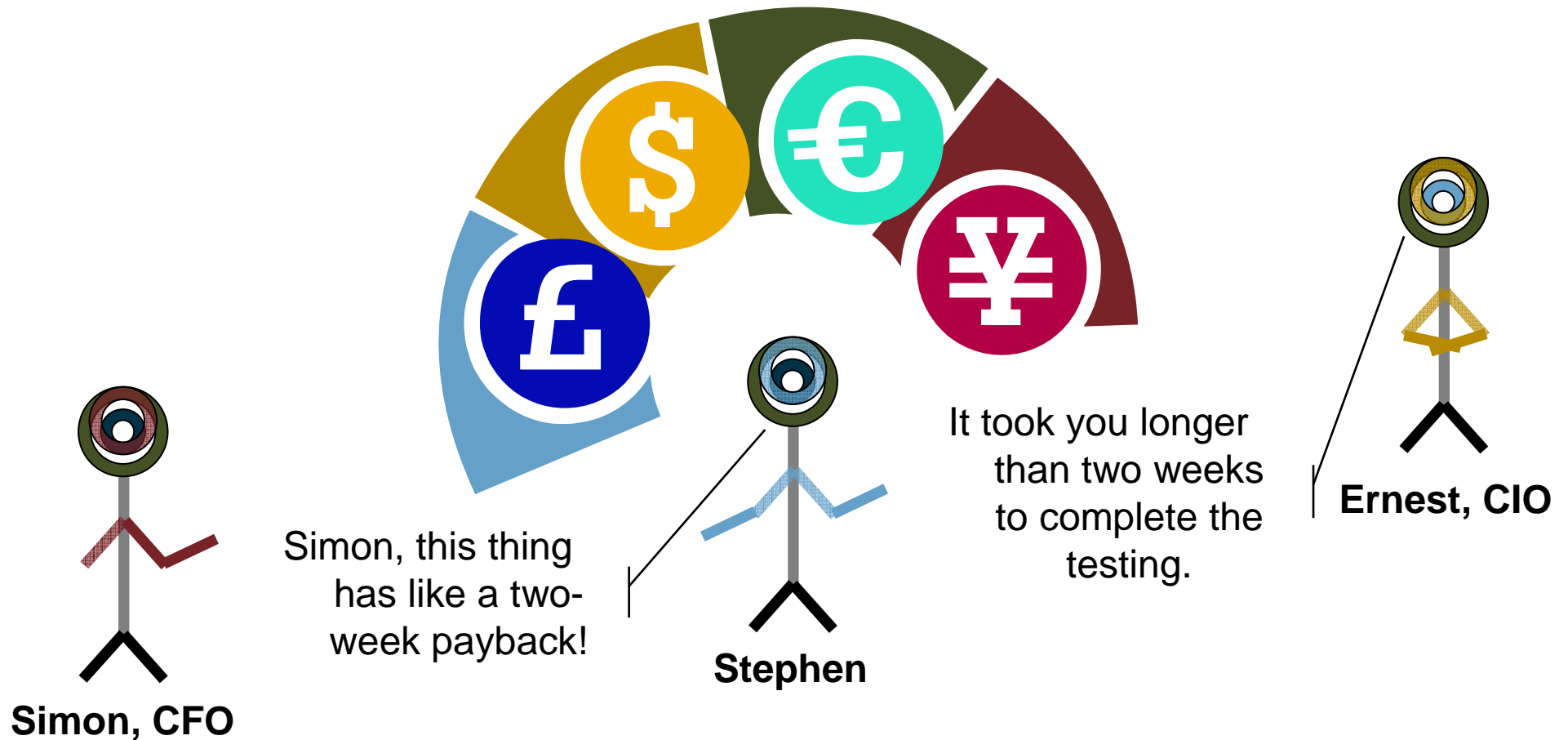


# CFO: All in favor?

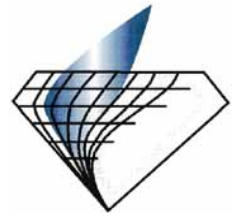


Systems Thinking  
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- Sounds like you're sold on it, then, Steve.

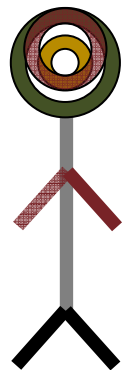
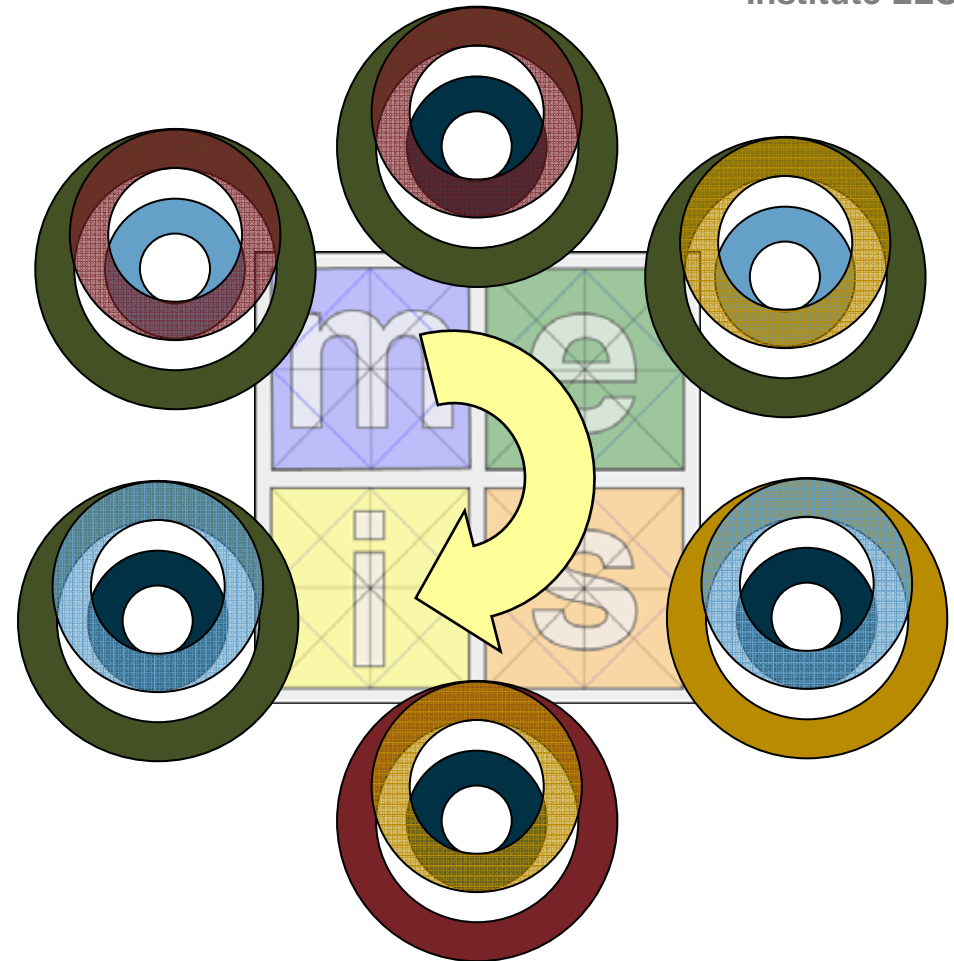


# CEO: Proof's in the pudding



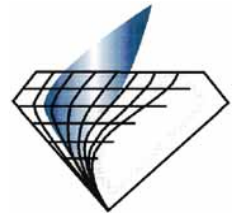
Systems Thinking  
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- Testing did take longer than I would've liked.
- Allowed us to clearly step through a rigorous process that led us cleanly to a definitive solution.
- Price of the product is chicken feed compared to the process savings.
- Without Systemkey's process, we would still be testing this or that looking for the answer to why yields were down.

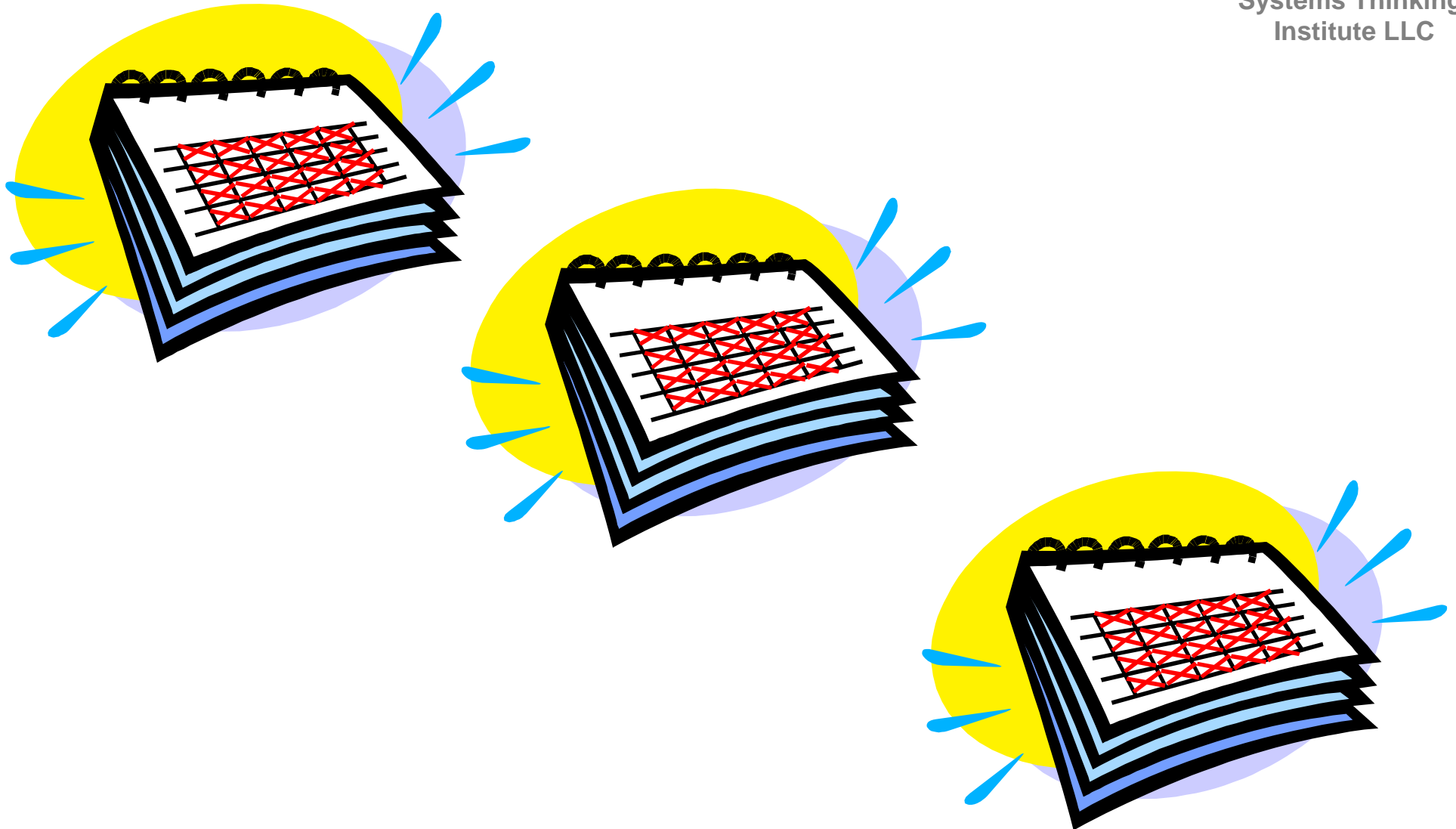


Dave, CEO

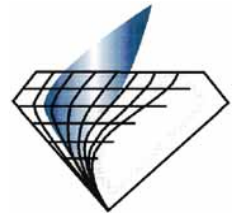
# Quarterly Recap (3 months later)



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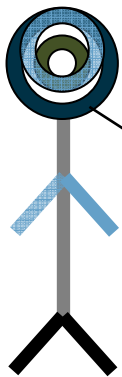


# Host: Embedding experience in print



Systems Thinking  
Institute LLC

- For those of you I haven't met before, my name's Angelo and I'm here to host or facilitate your Systemkey™ 90-day end-of-trial feedback session.
- Folks in the field see more variety than we ever could design in our lab. Your audio signature masking is a perfect example of that!
- Systemkey's SEMI-tool “embeds experience in print.” Through the structured dialog, even the newest analyst (Take a bow Asok!) can ask penetrating questions and has the rigor of the model to back them up.

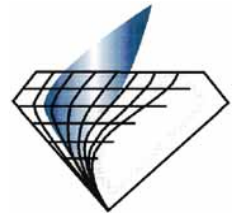


Dave, you're the  
top dog, how  
about we start  
with you?

**Angelo, Systemkey™  
Facilitator**



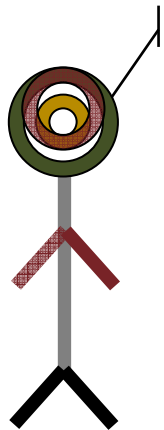
# CEO: Start w/Intern



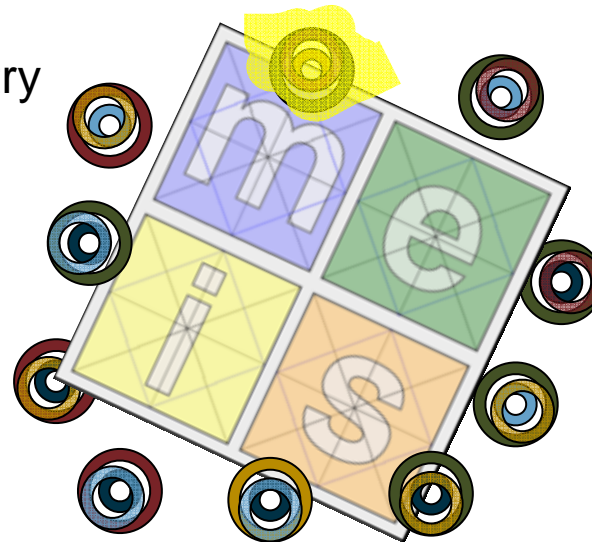
Systems Thinking  
Institute LLC

- Well, you got the dog part right... [chuckles]. Actually, I'll go last, so I don't stifle any comments.

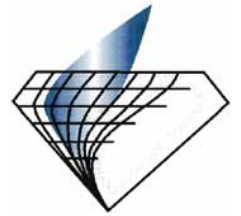
Asok, this was your first industry experience at systems analysis. How'd it go?



Dave, CEO

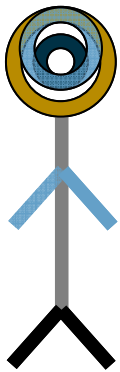


# Intern: Gave me courage

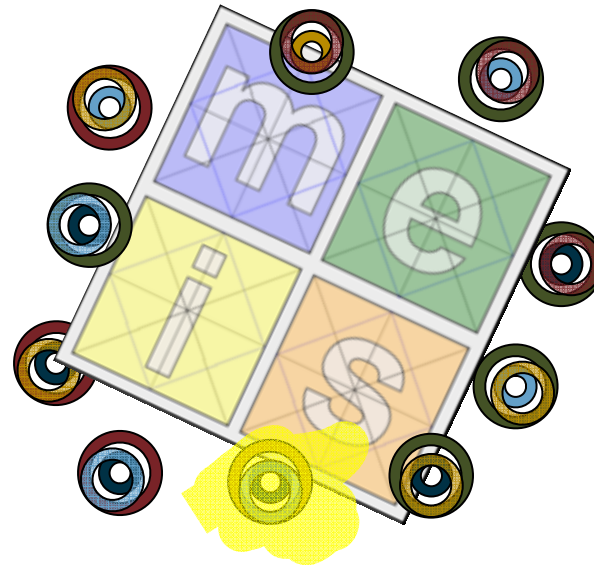


Systems Thinking  
Institute LLC

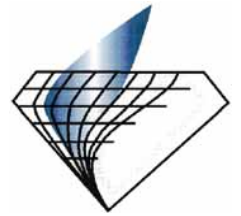
- To be honest, it was great. I felt like the Cowardly Lion after the Wizard of Oz gave him his heart! With the model to back me up, I had "courage" to approach anyone inside or outside the company, because I was following a process that made sense to me.



Asok

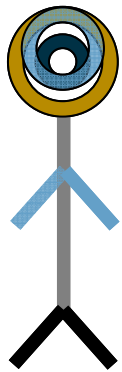


# Intern: Give people a chance to shine

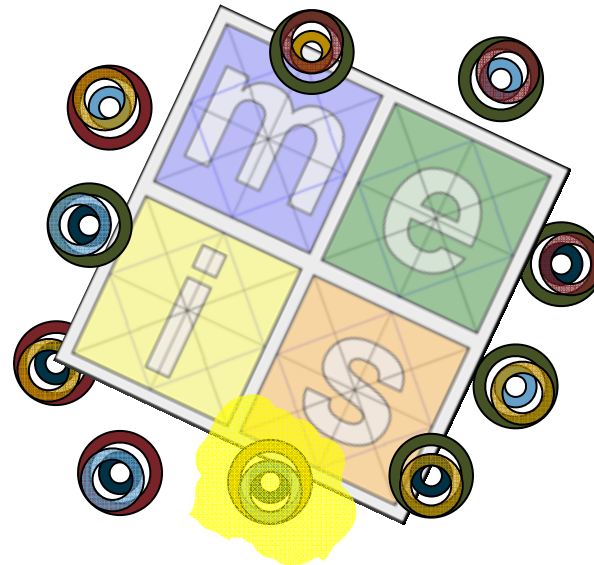


Systems Thinking  
Institute LLC

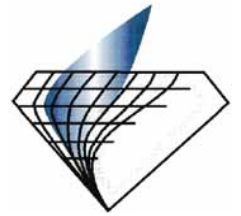
- Didn't matter to me that I didn't understand everything because I was interviewing people who did (about their area), so I guess it's true that when you give people a chance to shine, they want to help you. Systemkey rocks!



Asok

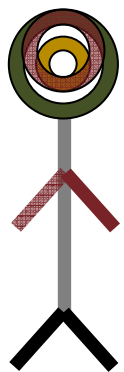


# CEO: What's your experience?

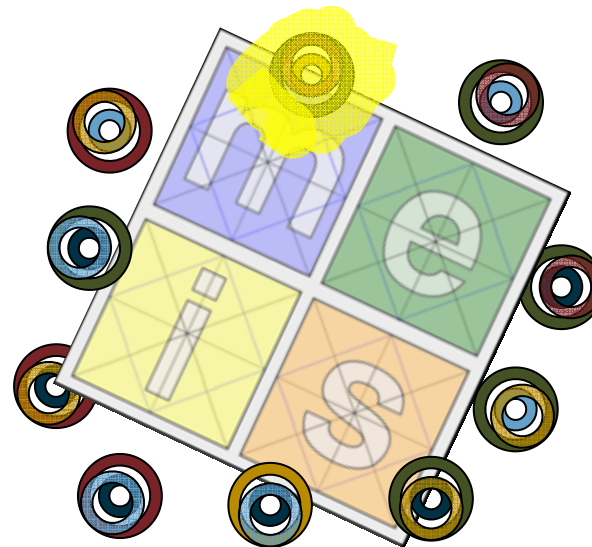


Systems Thinking  
Institute LLC

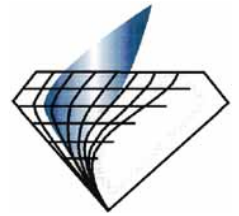
- Janet, I was surprised but pleased that you requested to attend. What's your experience with Systemkey?



**Dave, CEO**

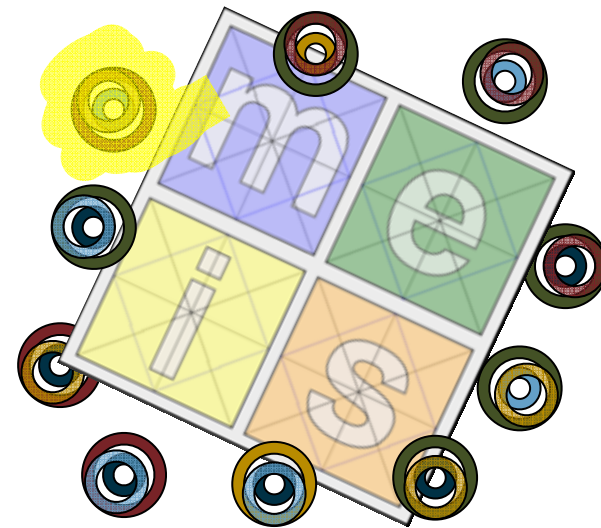
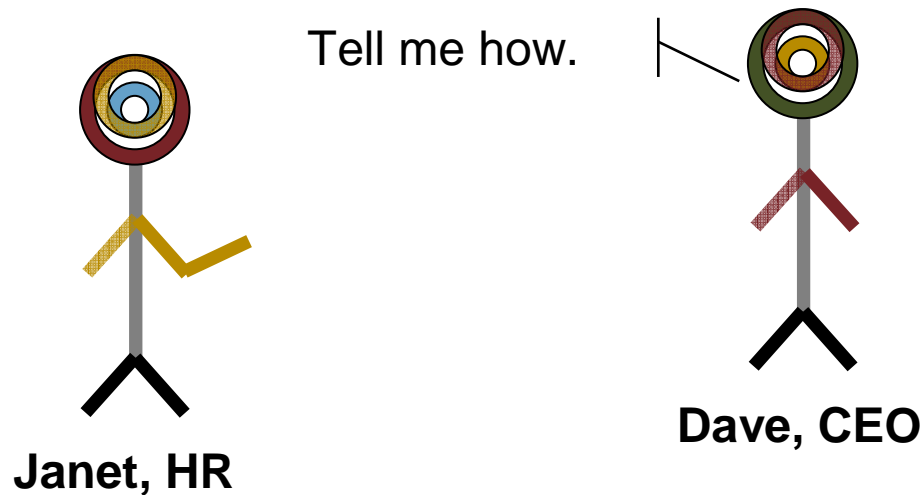


# HR: Made us more relevant

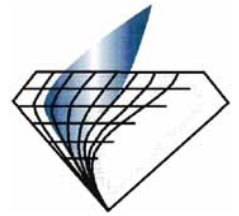


Systems Thinking  
Institute LLC

- I think I was even more skeptical than our COO, Albert. What I discovered as we integrated the process into our existing (and planned) workflow, was that Systemkey helps make our policies relevant to what we actually want to accomplish—durable behavioral change without coercion!

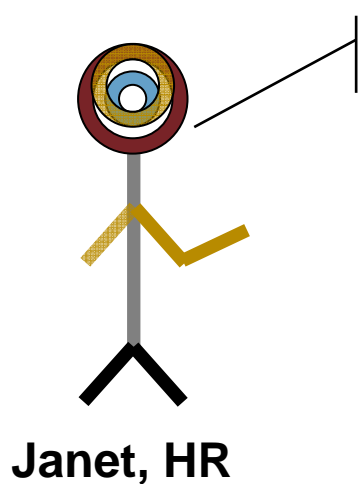


# HR: Embedded System & Safety

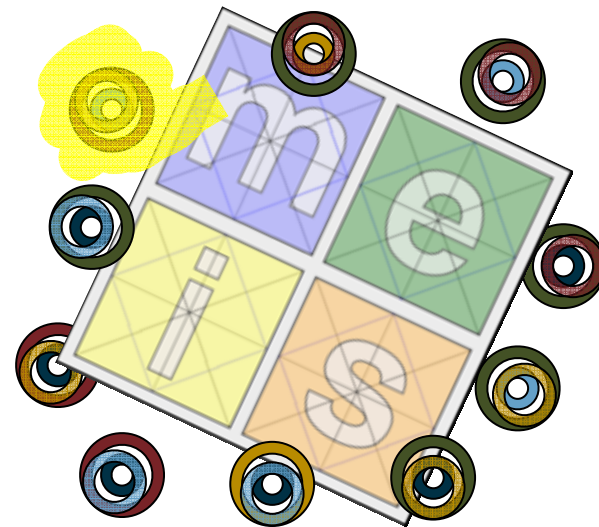


Systems Thinking  
Institute LLC

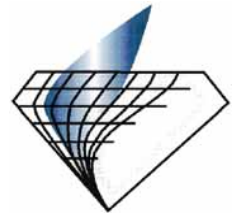
- We embedded Systemkey™ and the safety flavor called Safetykey™ into our policies then ran them by Ops for comment before going live.



Never done that  
before...

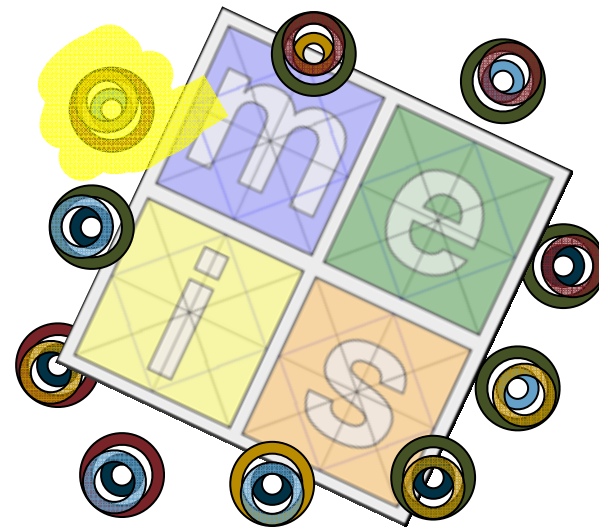
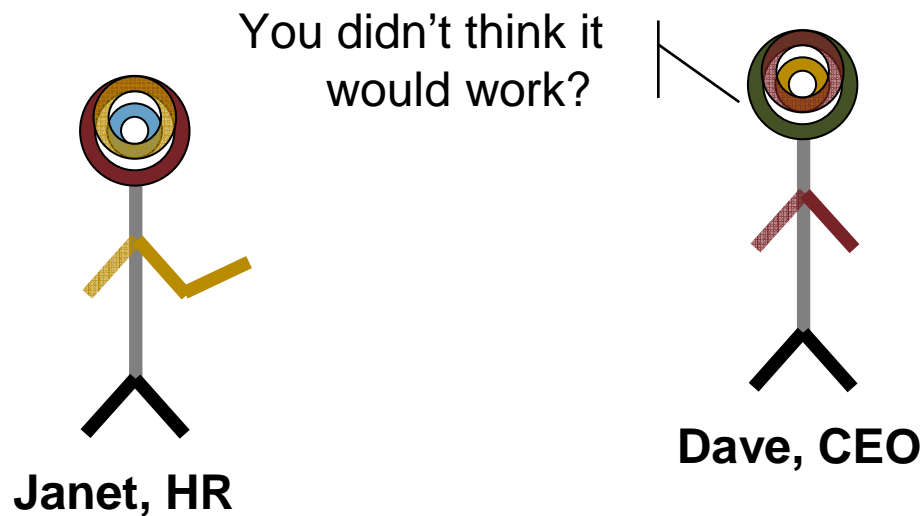


# HR: Completely new perspective

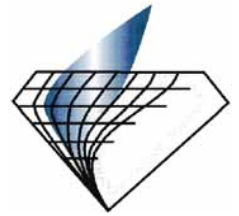


Systems Thinking  
Institute LLC

- We've never done that before. Frankly, I don't know anyone in the HR field who actually thinks from a production perspective, so this was a completely new take on my profession that has turned out very positive; I must say I'm surprised. Delighted but very surprised.

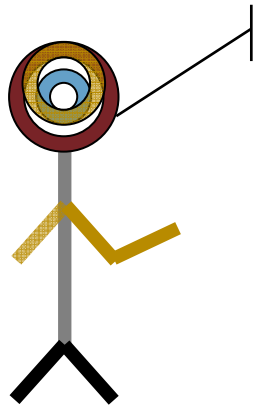


# HR: Deep Experience/Fresh Perspective



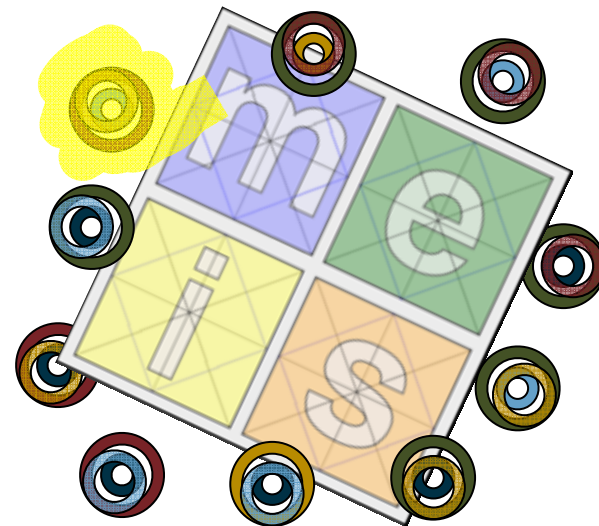
Systems Thinking  
Institute LLC

- I guess the best way I can explain it is part of their tagline, “Deep Experience/Fresh Perspective.” Now that we've integrated our staff policies within the context of actual operational concerns, I'm shocked that nobody has thought of this before, the fresh perspective part, I mean.

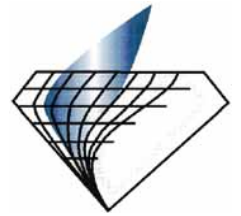


Janet, HR

Even in this short trial...

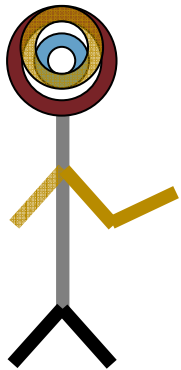


# HR: More timely, relevant feedback

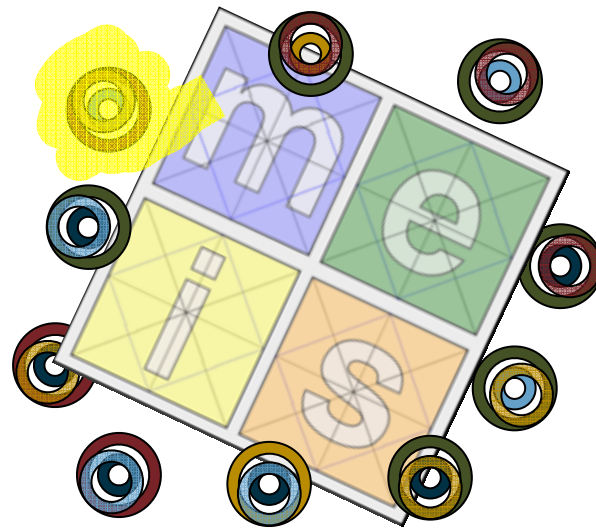


Systems Thinking  
Institute LLC

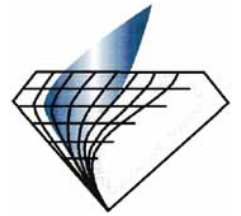
- Even in this short trial, we've gotten so much more timely, relevant feedback on how staff feel that we are contributing to the bottom line instead of just an overhead function. It's really been a boon to our department morale, believe it or not.



Janet, HR

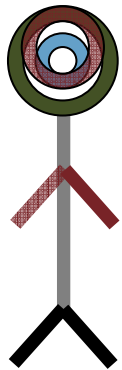


# COO: Enthusiasm, surprising

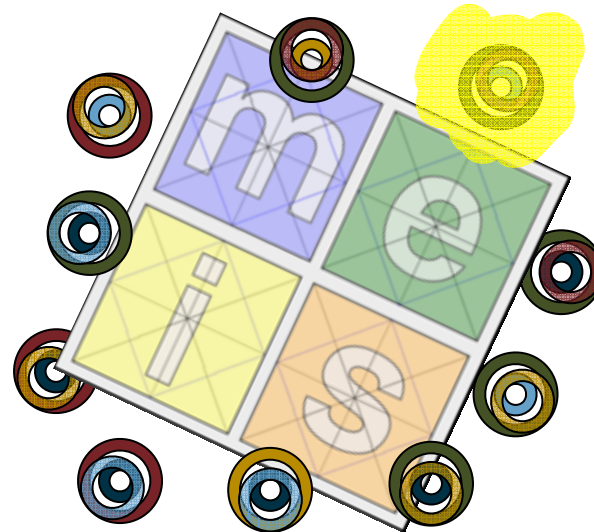


Systems Thinking  
Institute LLC

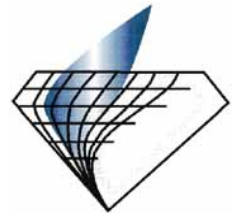
- Jan, in the eight years I've known you; I've never heard you this effusive about much of anything, much less a technical business process.



Albert, COO

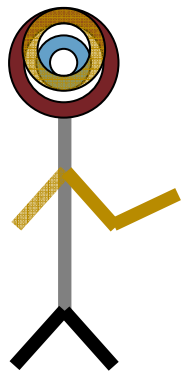


# HR: People trump technology

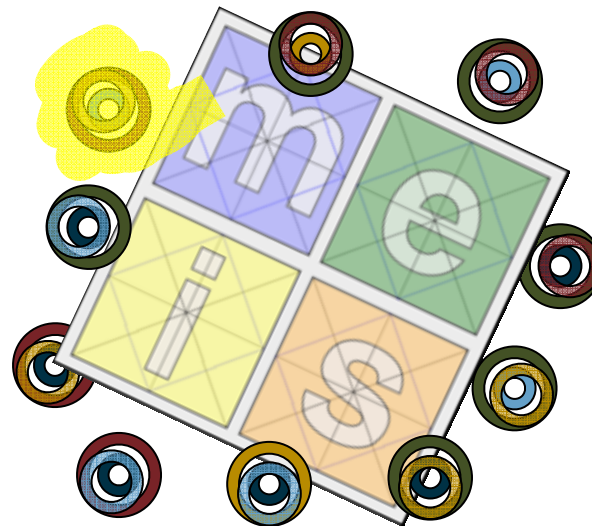


Systems Thinking  
Institute LLC

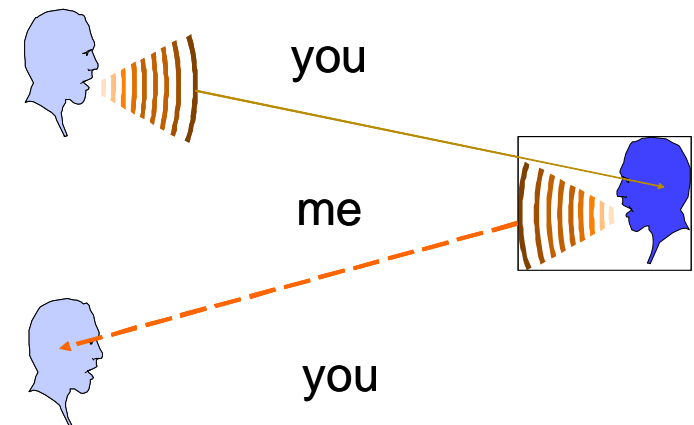
- Well, I guess the fact that it's not technical, it's people-centered for what we use it for. That it seems to serve Alan, Stephen and Daphne's functions all equally well is what sold me on it.



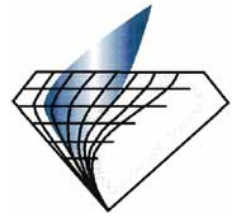
Janet, HR



Shannon-Weaver Model

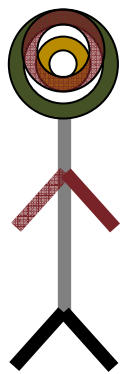
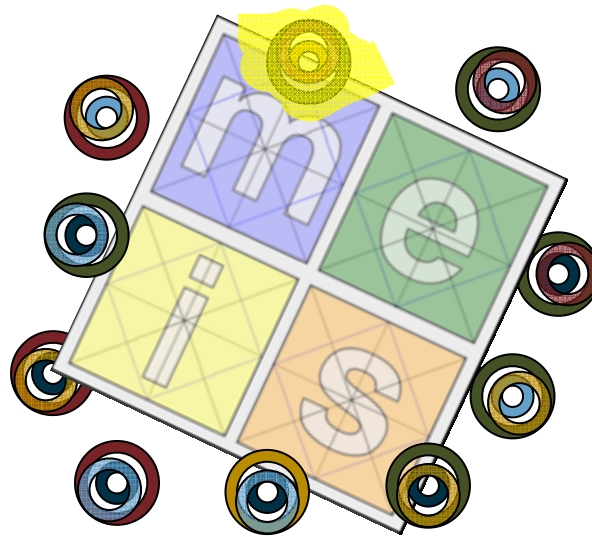


# CEO: Another Convert



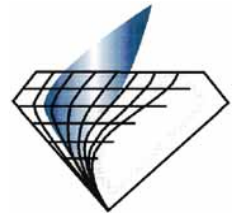
Systems Thinking  
Institute LLC

- Ernest, what's your take?



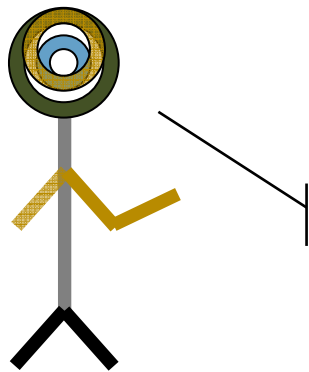
Dave, CEO

# CIO: Another Convert



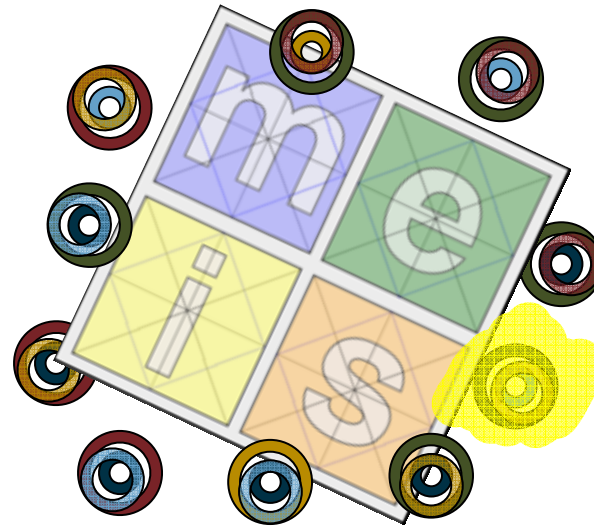
Systems Thinking  
Institute LLC

- Count me as another skeptic initially, who now ranks among the converted. When AI asked me to participate in the risk reduction session for the “kiln steam explosion” I wasn't interested until he told him that the model had suggested my input would be valuable.

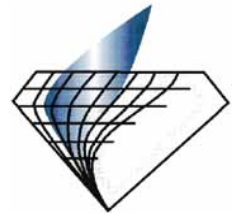


Ernest, CIO

I hadn't been  
exposed to...

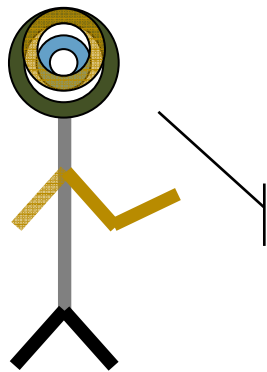


# CIO: Same data set



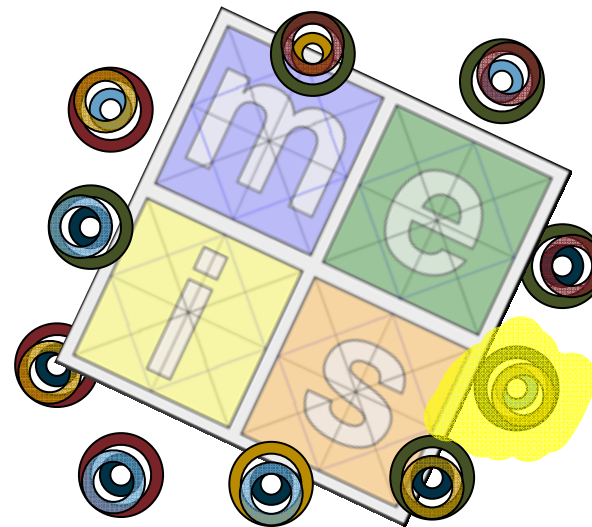
Systems Thinking  
Institute LLC

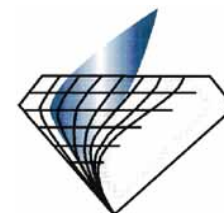
- I hadn't been exposed to the false positive/false negative concepts before, so I can tell you that the methodology goes as deep as you want to push it. Each department determines the level of detail they need with the major advantage that they're coming from the same data set.



Ernest, CIO

...even though we  
know...





# How it works: Type/Case f(+) & f(-)

Category	Condition	Cause	Type	Case
<b>matter</b>				
[Subject Matter Expert Contact info here]	<b>Movement</b>			
		mM+	overlimit	
				Real
				False positive
				False negative
		-	underlimit	
			Real	
			False positive	
			False negative	
		n (not as requested)		
		∅ none		
[SME Contact]	<b>Information</b>			
		MI+	overlimit	
				Real
			False positive	
			False negative	

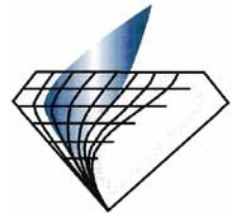
## ■ False positive

- reported event that isn't so: a stated problem, hazard or condition that is reported in error, no such situation actually exists.

## ■ False negative

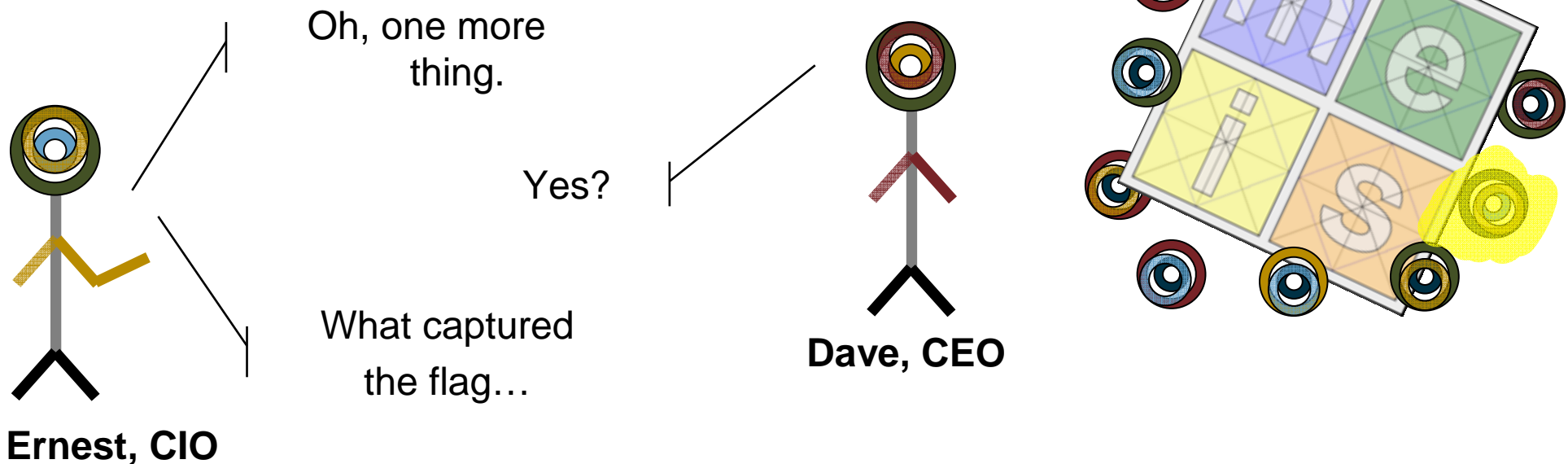
- is an unreported situation, event or problem. It exists yet is not reported.

# CIO: Scalable framework, grammar

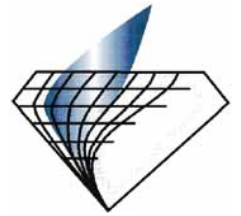


Systems Thinking  
Institute LLC

- So even though we know that nobody's perfect and at least some of the people some of the time will mess up the data; the Systemkey scalable framework means that we're all working with basically the same grammar so to speak.

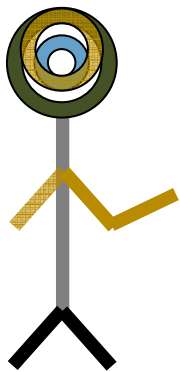


# CIO: Self-documenting

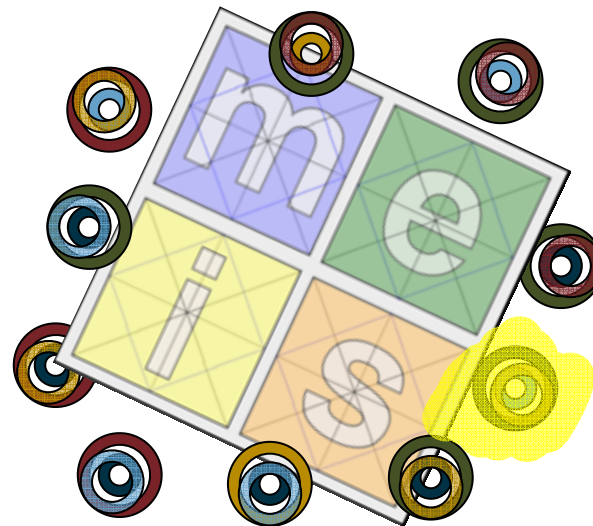


Systems Thinking  
Institute LLC

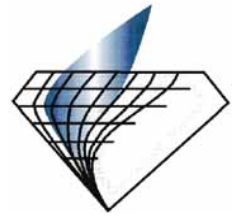
- What captured the flag for me was that the process, when followed as designed, captures the essence of a design discussion, so we can really say that it's self-documenting. That by itself is a Godsend!



Ernest, CIO

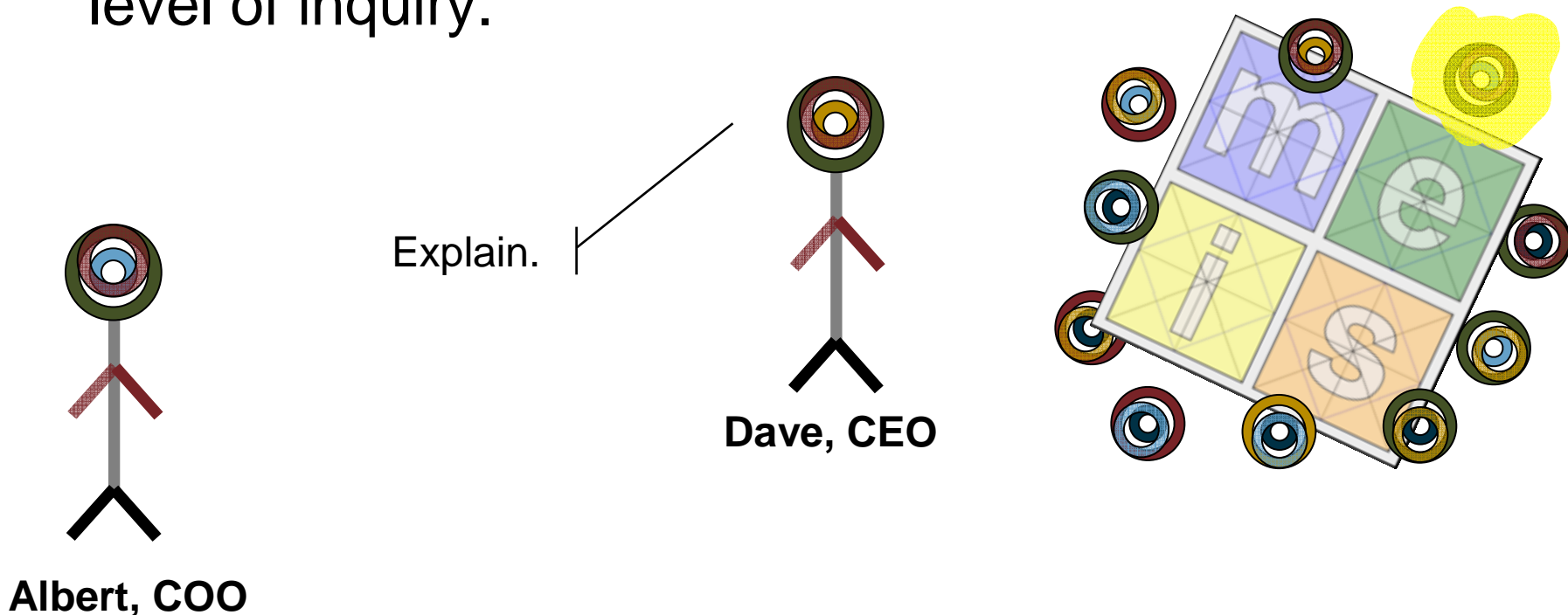


# COO: Baby Bear's porridge

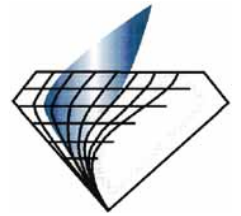


Systems Thinking  
Institute LLC

- You know I'm sold on it from the pottery yield increase. More than just that single example, it's like Baby Bear's porridge: it's just right [laughter], because it has the same level of rigor for every level of inquiry.

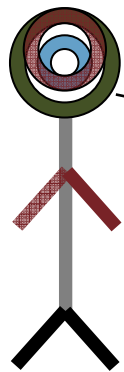


# COO: Change detail w/o losing rigor

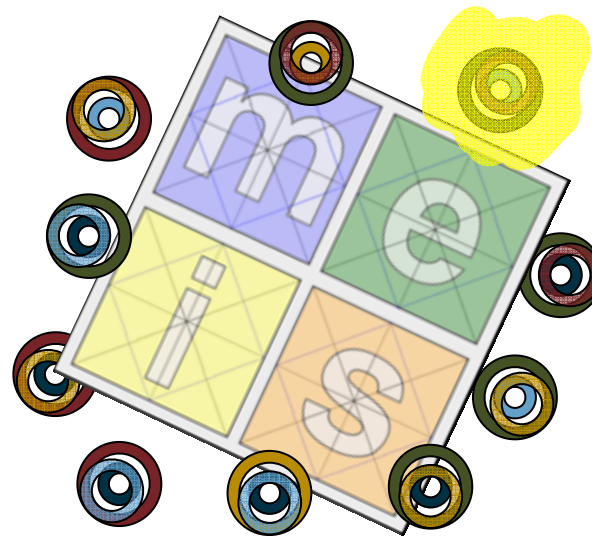


Systems Thinking  
Institute LLC

- The nested questions don't change, so the inquiry, you learn it pretty quickly. Not sure that I've ever seen another example of where the level of detail could vary at will without compromising the rigor of the data collected.

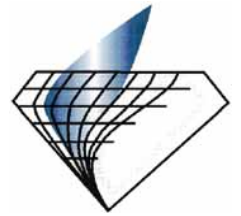


For us operationally...



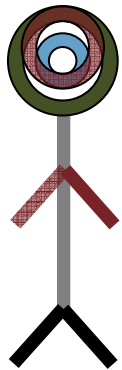
Albert, COO

# COO: A common language

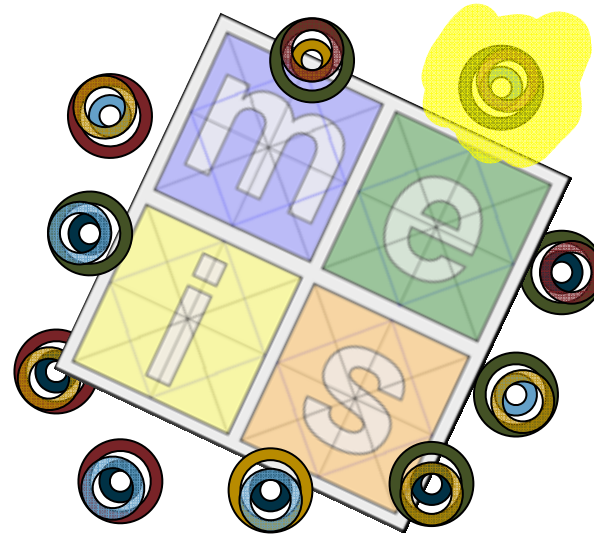


Systems Thinking  
Institute LLC

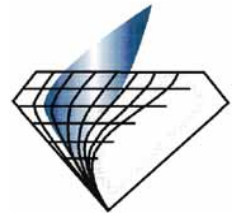
- For us operationally it has opened a window across the entire organization, because all the near-terabytes of data we're warehousing it's like we have a common language now that...



Albert, COO

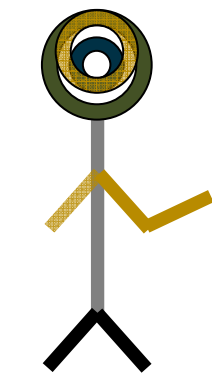


# CTO: Our Rosetta Stone



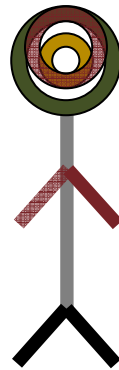
Systems Thinking  
Institute LLC

- I want to jump in before he steps on my line [laughter]. I tell people Systemkey is like our Rosetta stone, that translates from geek to sleek and back again.

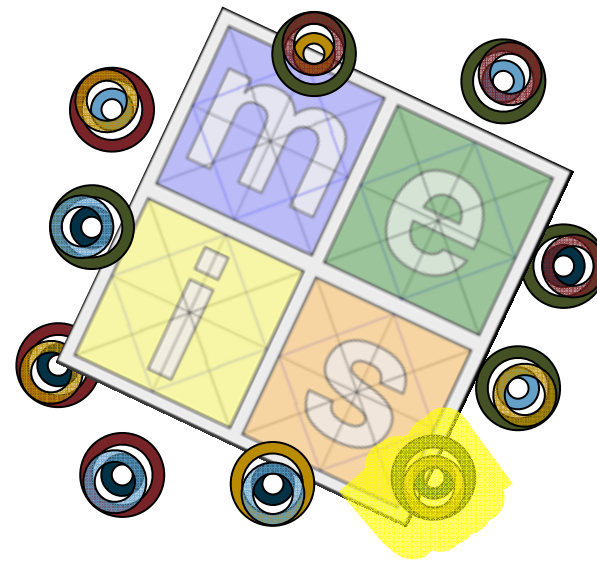


Reginald, CTO

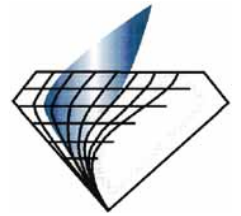
Geek to sleek?



Dave, CEO

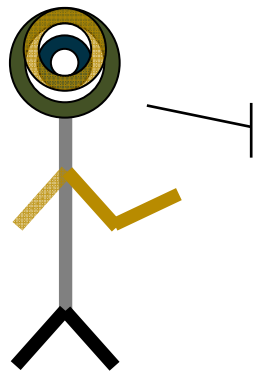


# CTO: Geek to sleek and back again



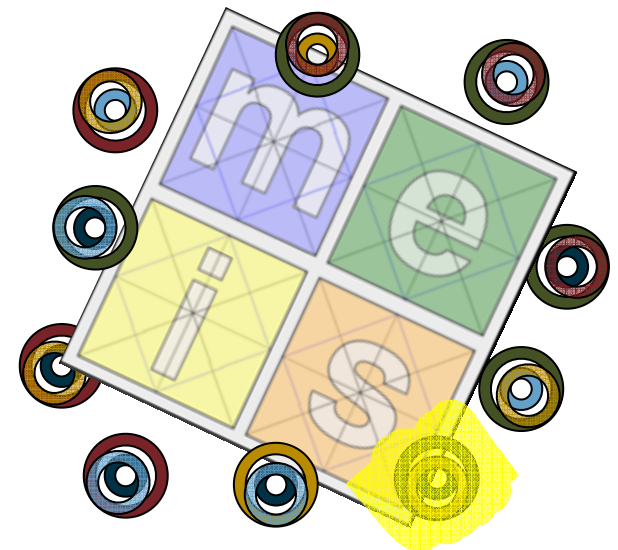
Systems Thinking  
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- Our technicians and analysts love the ability to drive the detail to any depth they want, just like Ernest said, because they've always complained before about not having a way to frame, store or reference the data they spent so much time and money collecting, in a way they could use on subsequent projects.

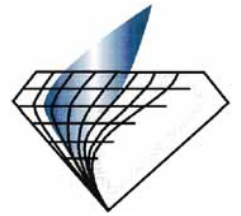


Reginald, CTO

Systemkey gives  
them what they  
want...

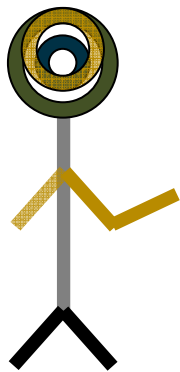


# CTO: Systemkey gives them what they want

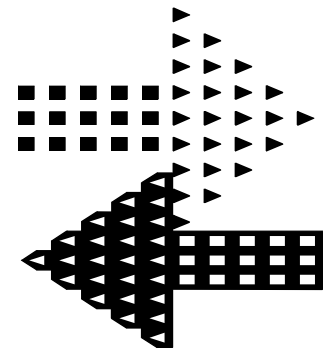
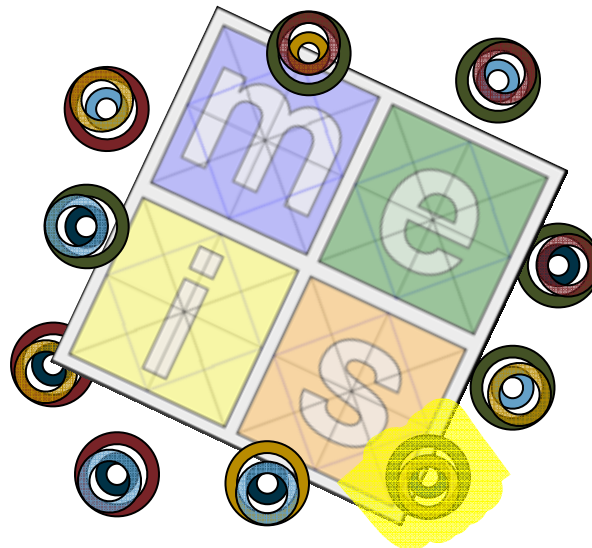


Systems Thinking  
Institute LLC

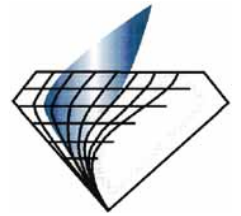
- A scalable data management process and searchable knowledgebase that builds over time as we use it more.
- While on the flipside, I can confidently collapse the telescope to give you, Dave, just the highlights; knowing that I haven't introduced any distortions or omissions into my report, because this up/down, richer/leaner is just woven into the Systemkey fabric.



Reginald, CTO

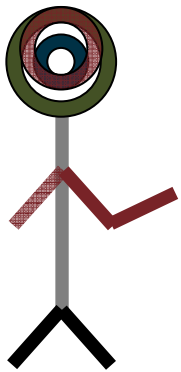


# CFO: Like compound interest

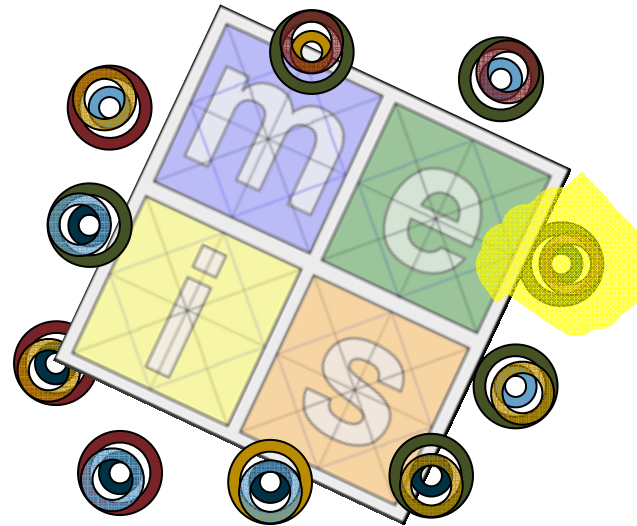


Systems Thinking  
Institute LLC

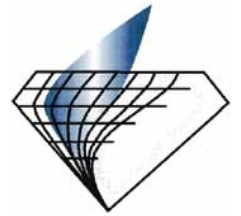
- I guess I'll jump in with my own analogy. I think of Systemkey as compound interest on your business process. It simply and drastically increases your rate of return for the effort invested.



Simon, CFO

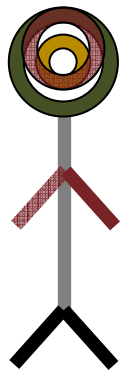
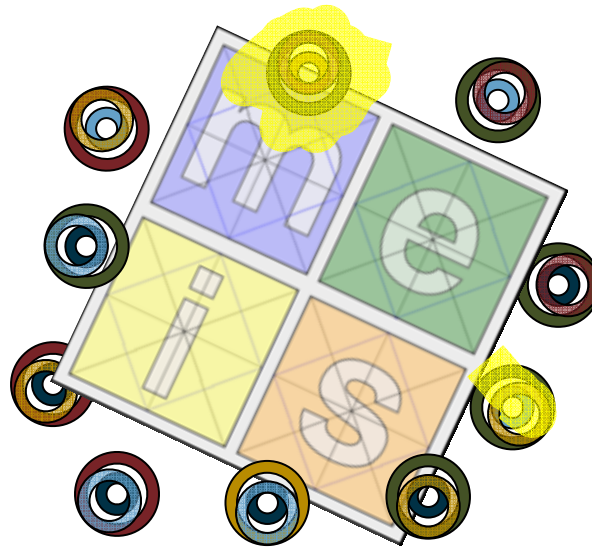


# CEO: What's your take on it?



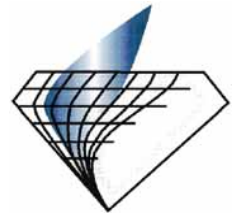
Systems Thinking  
Institute LLC

- Matt, what's your take on Systemkey?



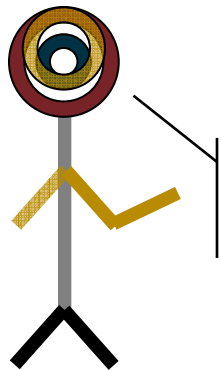
**Dave, CEO**

# HSE: A common language for innovation



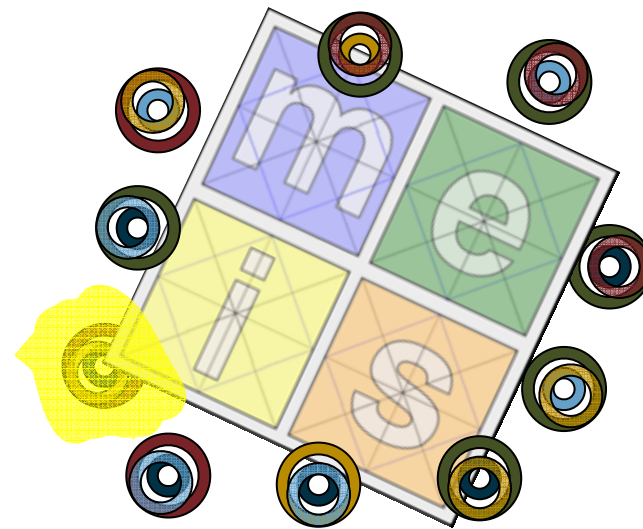
Systems Thinking  
Institute LLC

- I think someone said it before, yet it bears repeating, Systemkey gives us a common language for innovation.

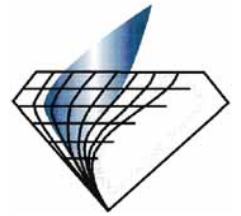


**Matt**

The Holy Grail of  
system safety...

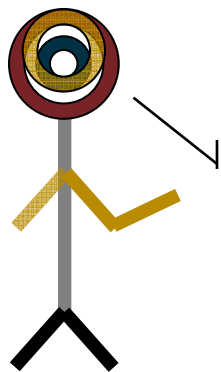


# HSE: Holy Grail of Safety Engineering



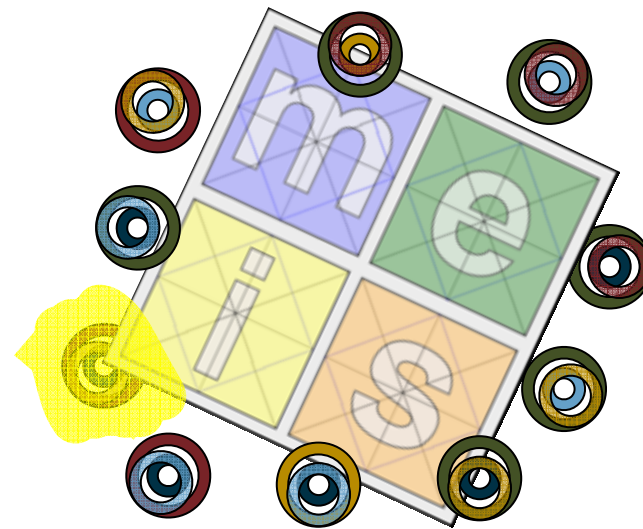
Systems Thinking  
Institute LLC

- The Holy Grail of system safety engineering is to catch the flaws, hazards and defects in the design phase, or with our tie-in to QA in the material acceptance or process test phase.

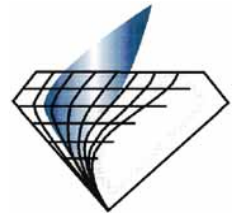


Matt

Not only did  
Systemkey knock it...

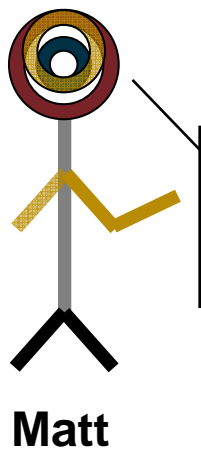


# HSE: Knock it out of the park



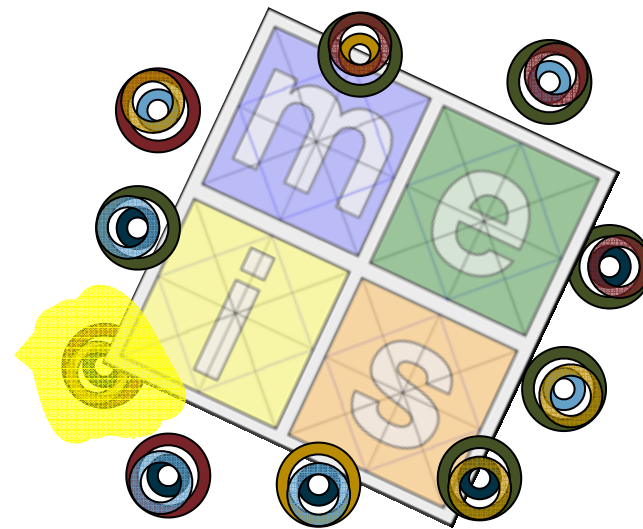
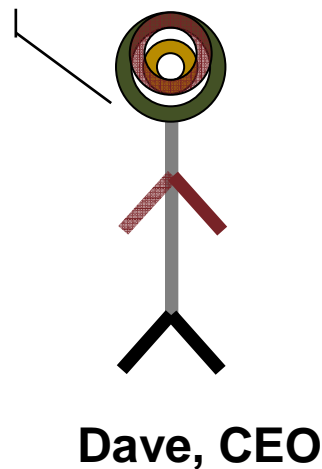
Systems Thinking  
Institute LLC

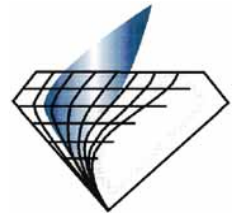
- Not only did Systemkey knock it out of the park in the "worker impaired causes kiln steam explosion" risk analysis; more amazing than that: we're on track with the DoE results to have an accident-free year.



What DoE  
results?

We'll cover those  
right after the  
kiln recap





# Steam Explosion: People-Process-Product

## ■ People

- ⊕ Workers showed up impaired
- ⊕ Failed (unable) to follow written process directives
- ⊕ Overtemp alarm sounded, not heard (previously analyzed)

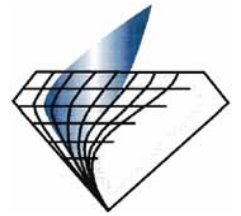
## ■ Process:

- ⊕ Water in greenware (uncured pottery) has 1:1700 expansion when flashes to steam, exceeded vessel pressure threshold.
- ⊕ Vessel door unlocked, limited restraint on steam release

## ■ Product (part or component)

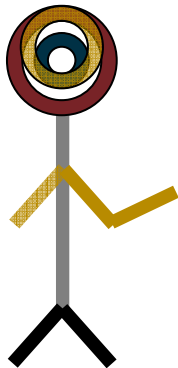
- ⊕ Multiple part errors contributed
  - Failed sensor allows cycle start w/o door locked.
  - Out of calibration thermocouple altered oven cycle

# HSE: Nationwide training

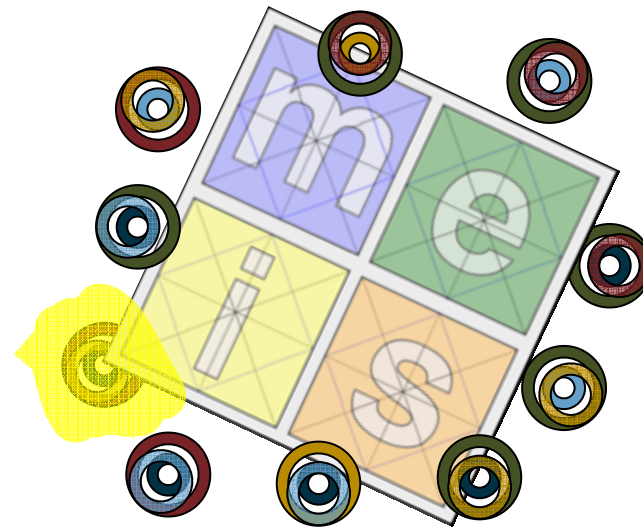


Systems Thinking  
Institute LLC

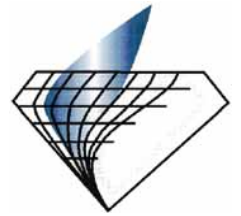
- I read a report where the precursor to Systemkey was used in motor vehicle training across 38 states for a Department of Energy contractor.



**Matt**

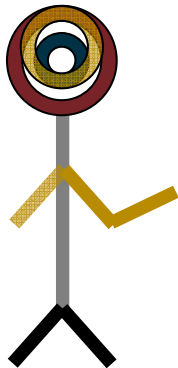


# HSE: Leading all research labs

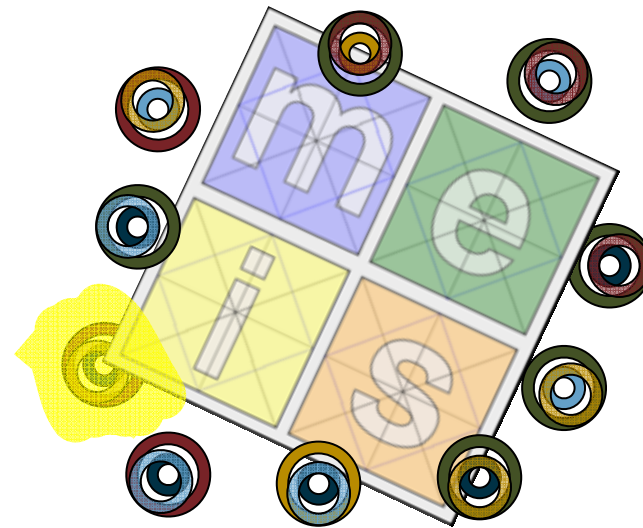


Systems Thinking  
Institute LLC

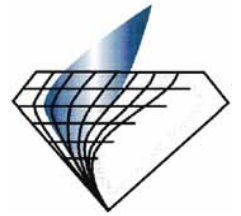
- They went from leading all DoE Contract Research Labs in motor vehicle accidents, to having an accident-free year, the first year of implementation.



**Matt**

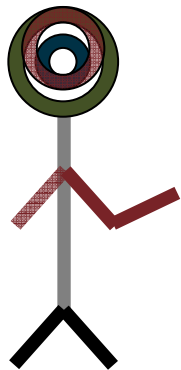


# CFO: Another compound interest example

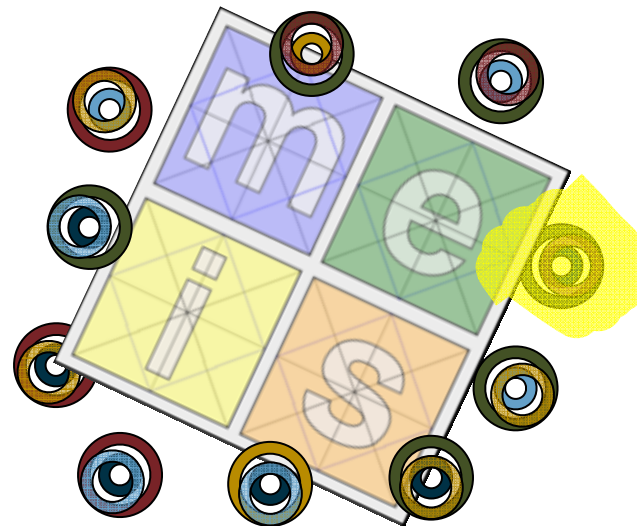


Systems Thinking  
Institute LLC

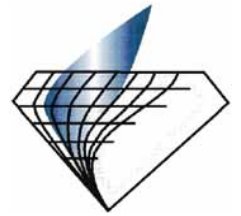
- Wow, that is impressive! Sounds like another example of the compound interest effect I was talking about. So you say we're on track with that, what do you mean?



Simon, CFO

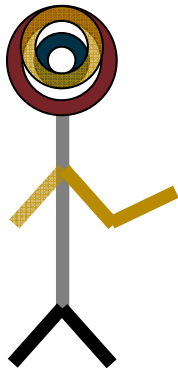


# HSE: Even non-reportables are down

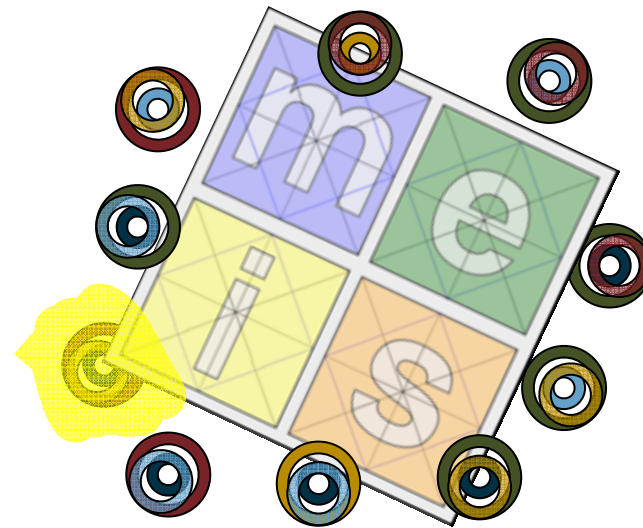


Systems Thinking  
Institute LLC

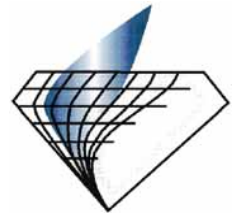
- Since we implemented the Systemkey version called Safetykey, in partnership with Janet's team, even non-reportables, (which we track but don't influence our insurance index), even those rates have nose-dived.



Matt

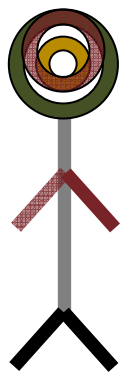
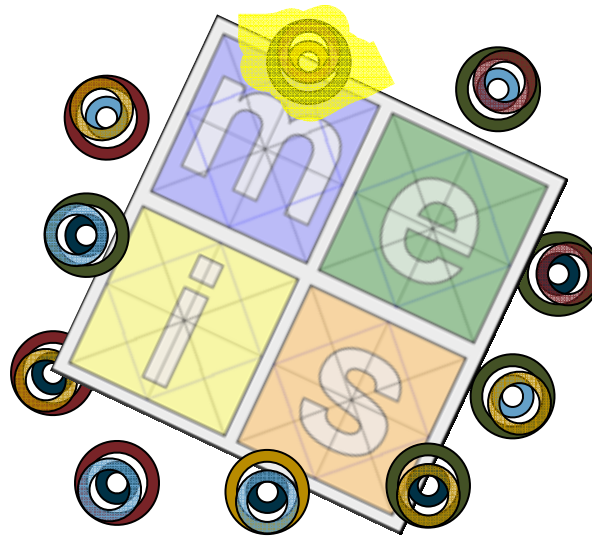


# CEO: What about QA results?



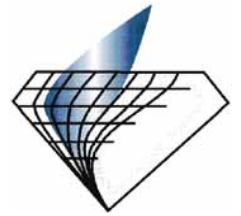
Systems Thinking  
Institute LLC

- Jermaine, how has Systemkey impacted QA, or has it?



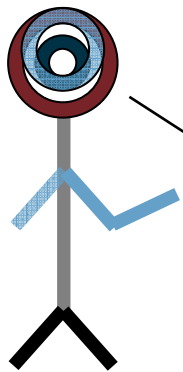
Dave, CEO

# QA: Finding needles in any haystack



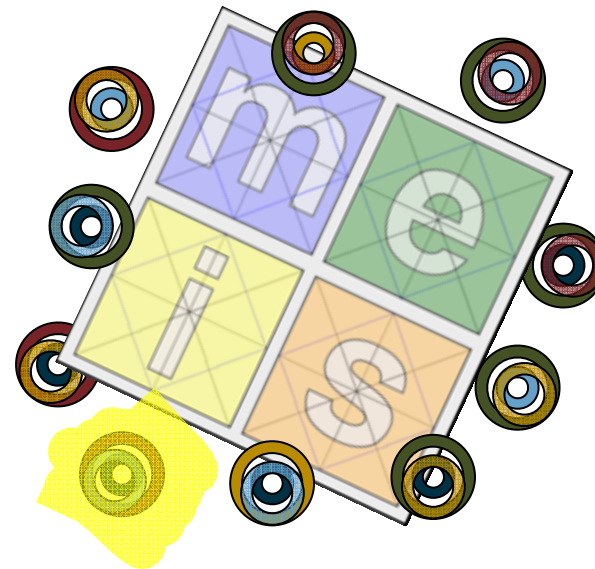
Systems Thinking  
Institute LLC

- You bet! The most concise way I can put it is that Systemkey allows us to find the very few needles across any haystack in any project, any division across the company.

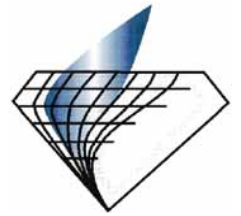


Believe it or not...

**Jermaine, Quality Assurance**

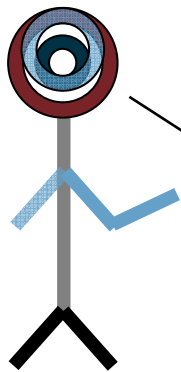


# QA: Channel & consortium partners



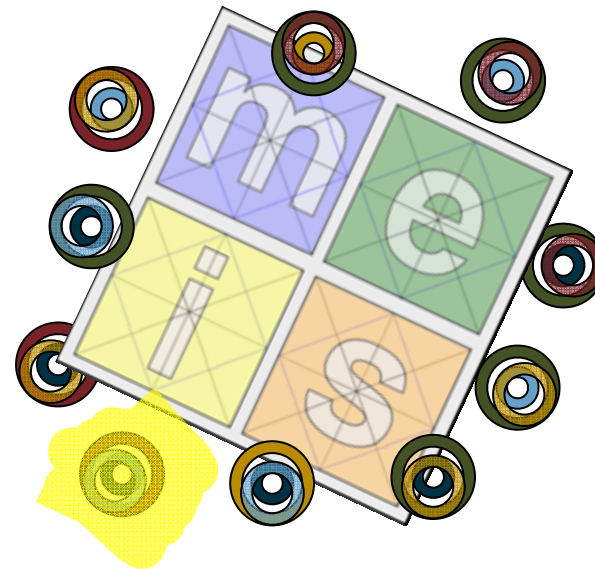
Systems Thinking  
Institute LLC

- Believe it or not, we've had half-dozen channel partners and one consortium partner ask for us to coach them on what we've learned.

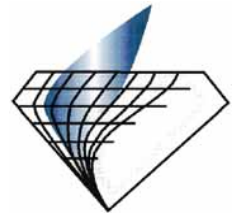


This wasn't  
cross-selling...

**Jermaine, Quality Assurance**

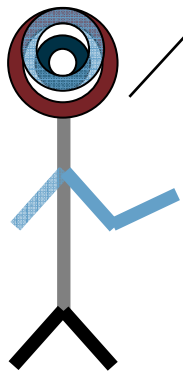


# QA: Coaching through conversion



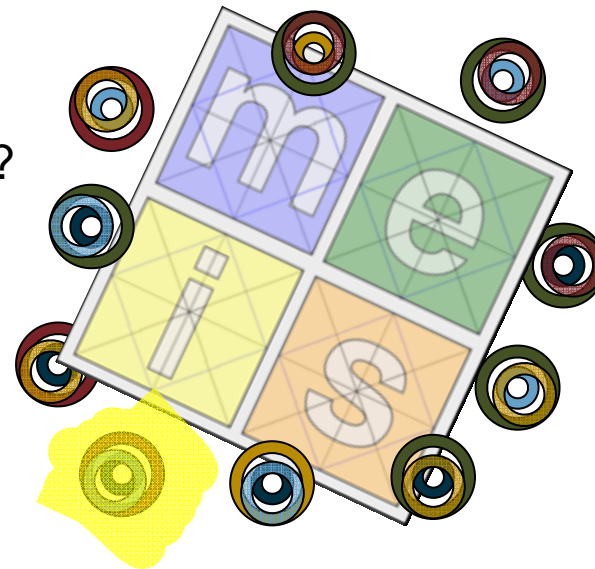
Systems Thinking  
Institute LLC

- This wasn't cross-selling, this was simply through conversations. One I guess was at through a bowling league, three through Twitter.

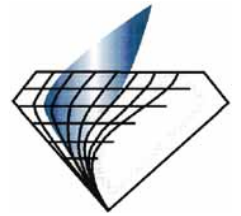


Reg didn't you say one was through an archery meet?

**Jermaine, Quality Assurance**

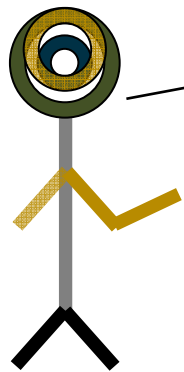


# CTO: 3 bullseyes in a row!



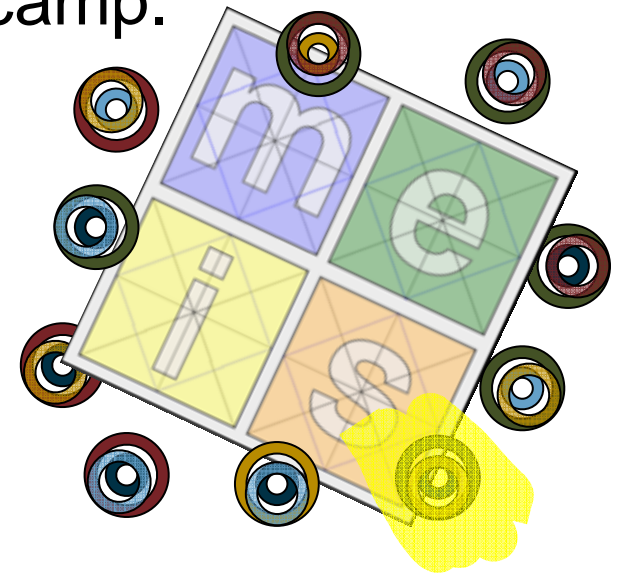
Systems Thinking  
Institute LLC

- Even cooler than that, my son Drew is at summer camp and shoots three bullseyes in a row. Naturally the instructor wants to know if his dad is William Tell or something.
- Get this, you know how angry I was at having to be on that field service call during his camp.

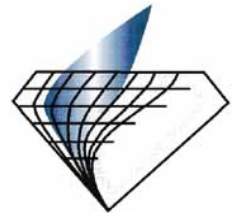


I was even more  
upset that...

Reginald, CTO

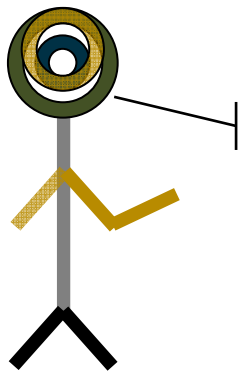
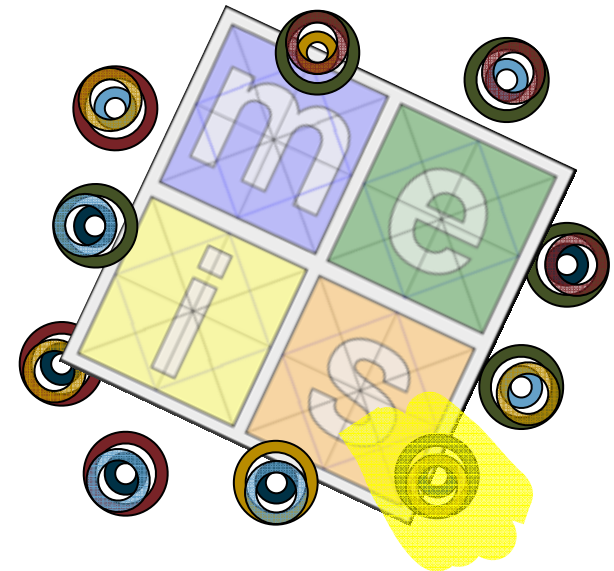


# CTO: He sees it, he reads it.



Systems Thinking  
Institute LLC

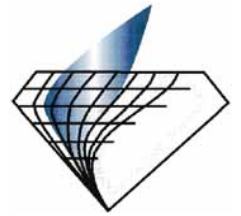
- I was even more upset that I had left the Systemkey user's guide on the dresser.
- He sees it, he reads it.



He tells me when I got home...

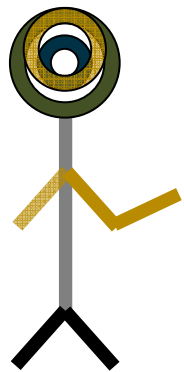
Reginald, CTO

# CTO: So I relaxed...



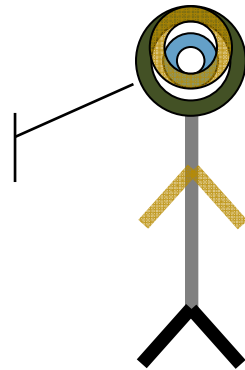
Systems Thinking  
Institute LLC

- He tells me when I got home that he wants to know where I got this book because it showed him how to translate the instructor's “aim and release” talk into something that worked for his brain...
  - ***“So I relaxed and that's what made me such a good archer.”***

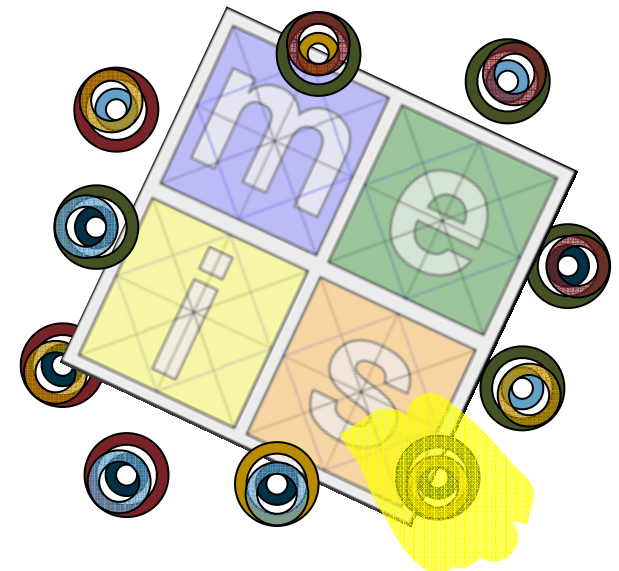


Reginald, CTO

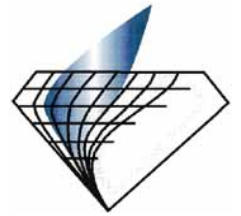
No way!



Ernest, CIO

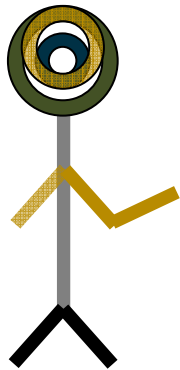


# CTO: The process is transparent

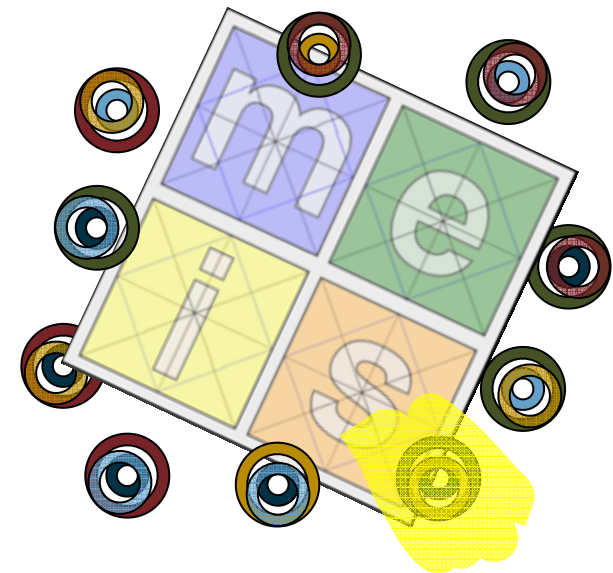


Systems Thinking  
Institute LLC

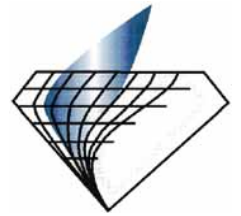
- Hey, I wasn't even there!
- I'd say that's pretty strong endorsement that the process is transparent if a 17-year old kid can pick it up from a book!



Reginald, CTO

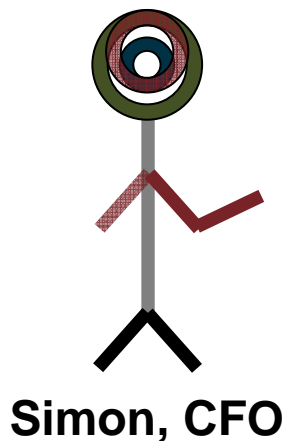


# CFO: Brings up a good point...

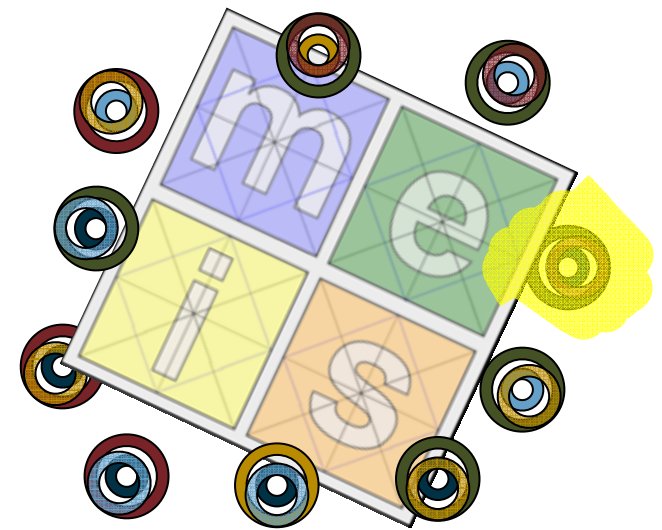
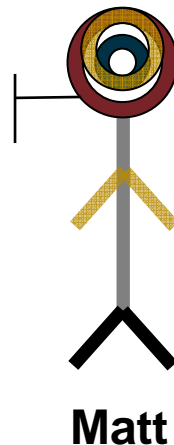


Systems Thinking  
Institute LLC

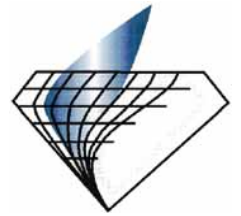
- That brings up a good point. Matt, after the policy changes that Janet and Albert put in place, you presented the results of our kiln pre-install hazard mitigation study at a Safety conference.



Yes.

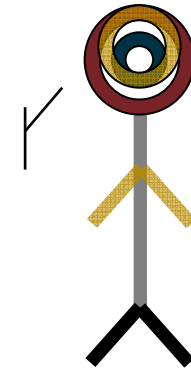


# CFO/HSE: Bottom line is...new clients!

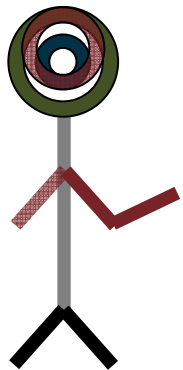


Systems Thinking  
Institute LLC

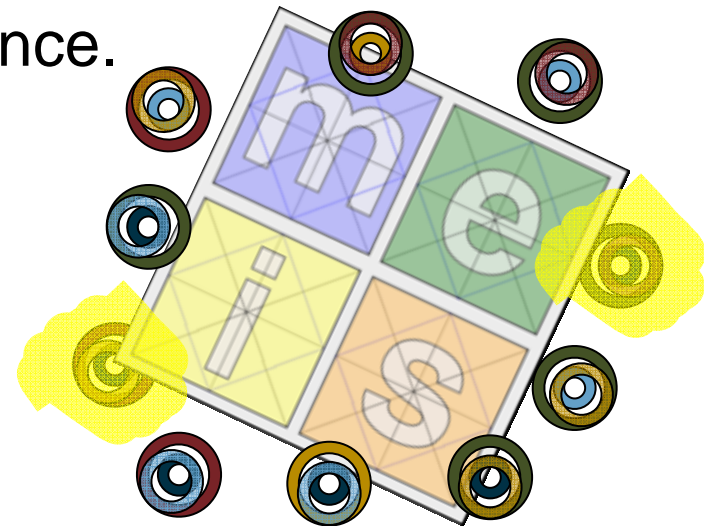
- CFO: How many people was your final follow-up tally?
- HSE: Fifty-eight Simon. I remember you telling me that sixteen of those either called or met with you or Dave.
- CFO: Yes and the bottom line is that four of those turned into new clients for the firm based on what they heard you present at a conference.



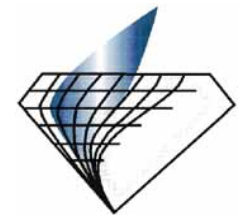
Matt



Simon, CFO

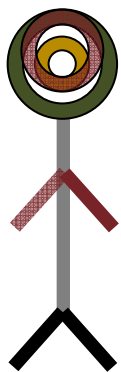


# CEO: Allows me to focus on big picture



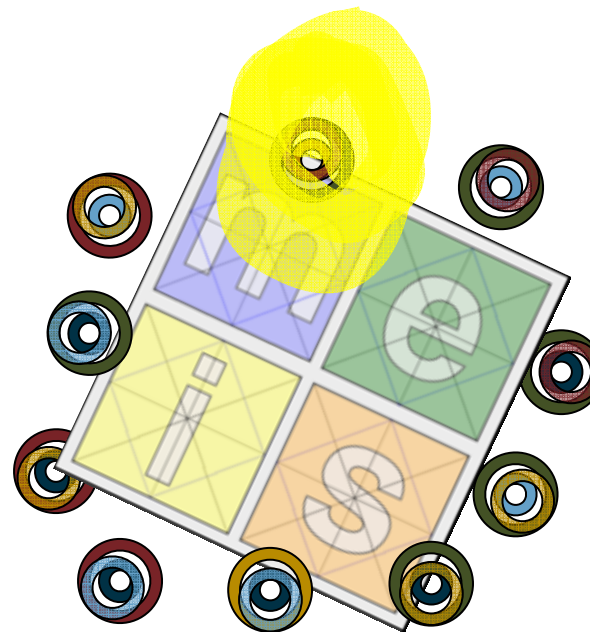
Systems Thinking  
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- These past three months, I've seen that it let's me focus on the big picture, with the peace and serenity that the data is there if I or one of you, one of my leaders needs to drill down for it.

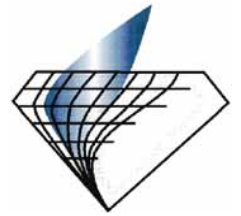


Dave, CEO

Systemkey does  
for us what...

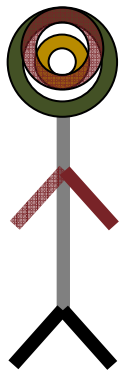


# CEO: Increases the sweet spot



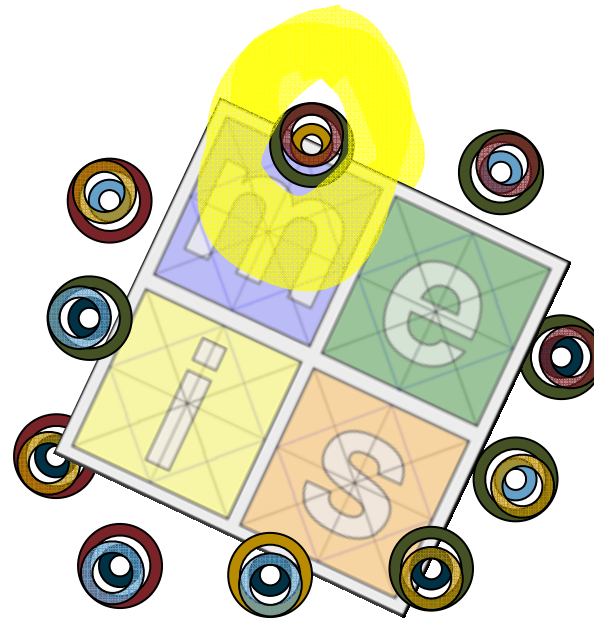
Systems Thinking  
Institute LLC

- I think Systemkey does for us what the Prince tennis racquet did for average Joes, it increases the sweet spot, so we play more like the Roger Federer of our industry.

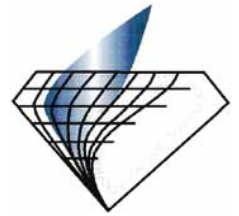


Dave, CEO

We're doing...

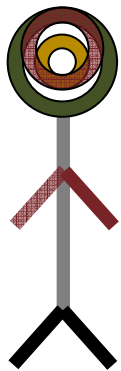


# CEO: Doing more of the right things

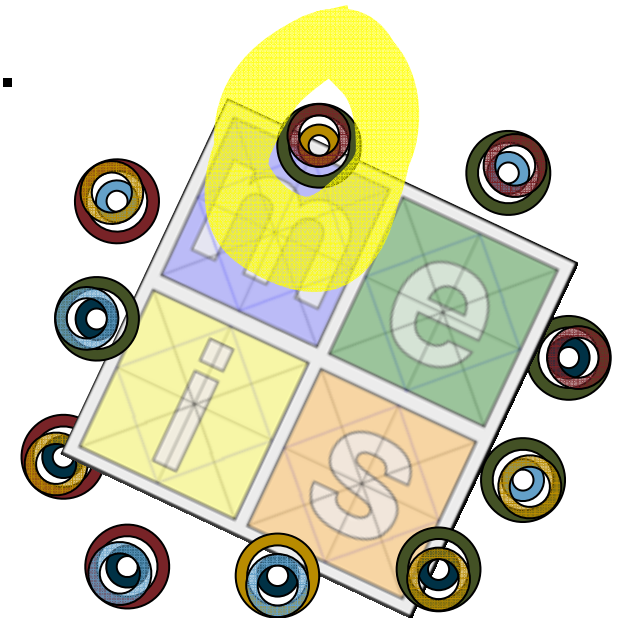
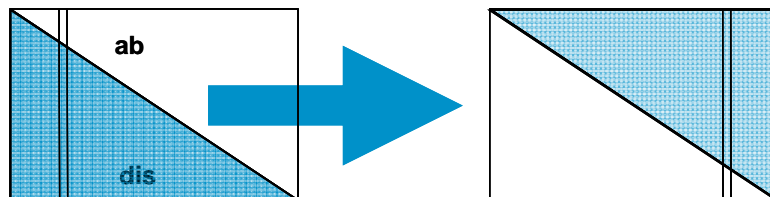


Systems Thinking  
Institute LLC

- We're doing not just more things, we're doing more right things with the awesome ability to distinguish the vital few from the trivial many. I like especially what Jermaine said about the few needles across many haystacks.

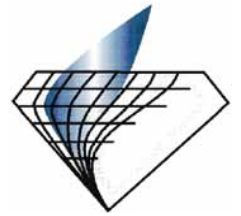


Scale your attention  
to the matter at hand



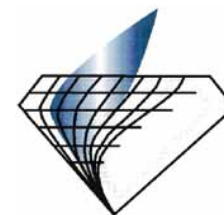
Dave, CEO

# Back-up Slides



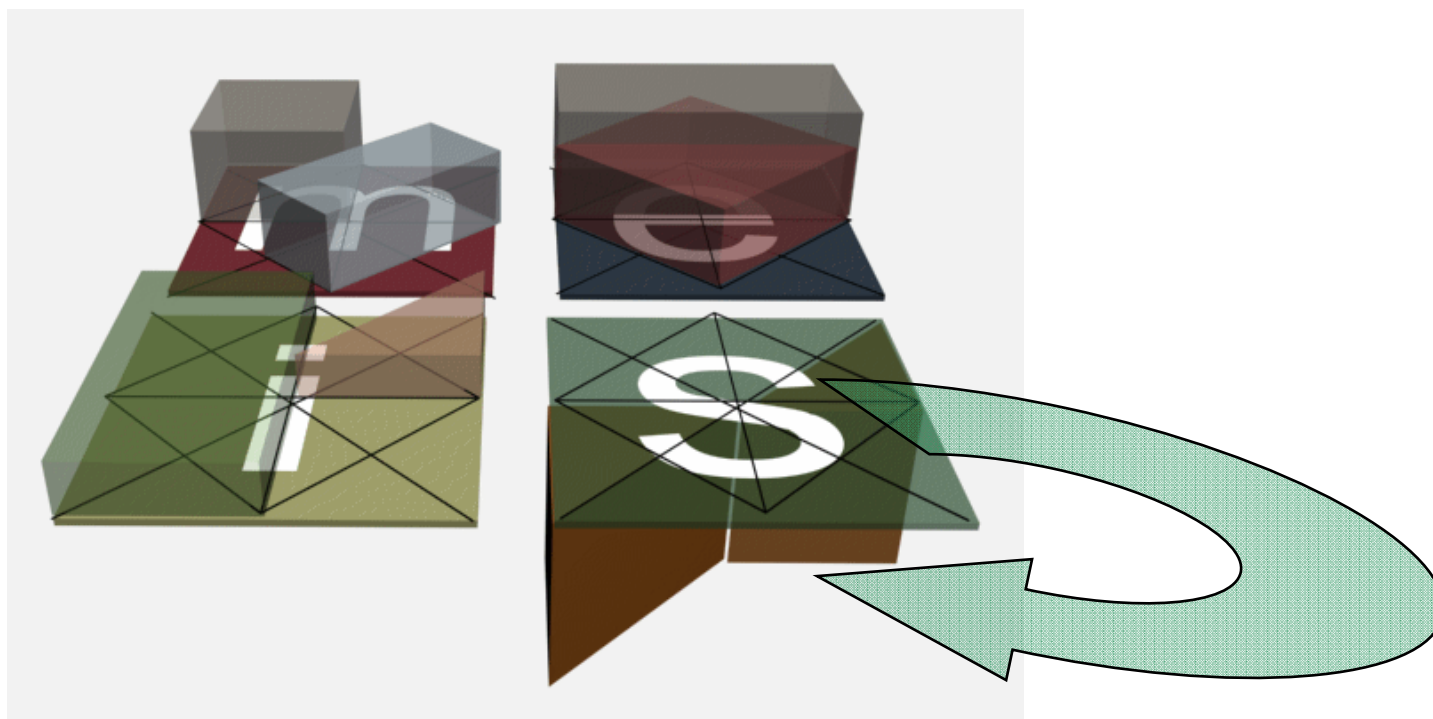
Systems Thinking  
Institute LLC



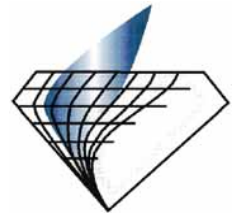


# Concurrent Analyses

- Shaded volume height = level of detail
- Can do concurrent analyses on same item (simple & complex)



- Software is “below the plane” because it’s not tangible



# Herb's Up Close

- **Designing Success:**  
Solving problems before they happen, or in technical talk: pre-acquisition hazard mitigation on the new kiln



Herb's new pottery kiln

Image source:

[www.nabertherm.de/produkte/keramikbiokeramik/keramikbiokeramik\\_englisch.pdf](http://www.nabertherm.de/produkte/keramikbiokeramik/keramikbiokeramik_englisch.pdf) p. 15