

# I Dreamt That I Had This Discussion With The Treasurer Of General Motors and This Is What I Told Him That He Had To Know About Plant Maintenance and E-Commerce

“The subject of this meeting is something that these people sarcastically refer to as Bean Counting. This isn’t a nightclub act; we don’t need these comedians in this room?” The treasurer agreed, and excused them from the meeting. Those dismissed from the meeting had made light of the solution to a problem, one both advanced and pervasive. They had made light of quite a bit of plant maintenance’s serious business, in and out of GM. Now they were no longer part of the improvement process. They had been put out in the hall, where they belonged.

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The title to this article is by far, the longest I’ve ever used since I began writing some 40 years ago this month. It contains some surprisingly powerful messages. Its story resembles an Escher drawing; Escher being an artist whose fame grew during the late 1970s. His artistic theme was in drawing perpetual flow sketches: Never-ending explicitly drawn staircases that went up and down and around the painting; doppelganger mirror images, whose multiple reflections receded to a pinpoint on the horizon. You just didn’t know where the flow began, or ended; you just pointed to a location on the painting and traced its movement. Like an Escher drawing, this article’s illustration is rather explicit, and leaves little question as to its identity. You just point and trace. Let’s proceed with it.

The atmosphere of the meeting didn’t surprise me. It was somewhat unfriendly. The great majority of the attendees had a good deal to lose, should this meeting go sour for them, but they seem unworried by the prospect. After all, I had been described as “A Talking Head,” who was I anyway? “This fellow is just theory, he does these Maintenance 101 seminars; he’s very basic, there’s no substance to what he says.” “He’s a trouble maker who doesn’t believe in TPM, or our automotive industry E-Commerce initiative, or our choices of Computerized Maintenance Management System for that matter. He’s just not our type. Don’t waste your time by meeting with him!”

Now for the Escher effect. The reason for the meeting being called in the first place, is because the Treasurer of General Motors had just read this article, and several others that I have written for this publication. He wanted to meet with me, as this article raises a number of extremely sensitive GM business concerns, relating to unanswered organizational, application, and systems questions.

In it, I wrote of having asked him what his corporate maintenance budget was. We hadn’t been in the meeting for too long, and perhaps he didn’t think that I deserved an answer to that question, so he refused to offer a figure. My response: “Let me make this point: Had you replied to my multi-billion dollar budgetary question sir, and were plant maintenance operations throughout GM’s divisions spun off and consolidated as one separate corporate entity, whose operating budget was the corporate maintenance budget that I asked you about, in all likelihood that figure would make it a Fortune 25-35 corporation. And yet, have you ever seen a Financial Statement or a DOC from any of these multi-billion dollar divisional maintenance entities, their plants, or their departments?”

One of GM’s external consultants, and one of their corporate chosen CMMS providers, had representatives at the meeting. Both of them chimed in, saying: “What is a DOC Mark, some acronym that you just invented while sitting there?” Their snickering traveled around

the room. The Treasurer knew what a Financial Statement was and surely knew what a Daily Operating Control was. He just didn’t know how I was going to respond to this insult, so I stood up, turned to the Treasurer, and asked this question: “Are these two people still part of this meeting?” His response: “What are you saying?” Stone faced, I replied: “I’m asking you how serious you consider this meeting to be?” “They seem to think that a Daily Operating Control is a joke; I don’t!” “Is a Daily Operating Control some acronym recently invented by me?” He was now frowning and responded: “It’s serious business around here, as you seem know.” I continued: “What else about GM’s business decision support process do these two people think is a joke?”

“The subject of this meeting is something that these people sarcastically refer to as Bean Counting. This isn’t a nightclub act; we don’t need these comedians in this room?” He agreed, and excused them from the meeting. You see, I had addressed the solution to a problem, one both advanced and pervasive, and spoke of it, confident that it had not been addressed by any of them; making a statement to the Treasurer to that effect. Those dismissed from the meeting had made light of its seriousness. They had made light of quite a bit of plant maintenance’s serious business, in and out of GM. Now they were no longer part of the improvement process. They had been put out in the hall, where they belonged. Outside of the Treasurer,

myself and four of his staffers, I could make one common statement covering those who remained in the room: The blood had drained from their faces.

The Treasurer turned to me and asked: "What are your credentials." I slipped him a folded piece of paper containing a one-page, rather explicit resume. Forty five seconds passed while he scanned the page, but soon he looked up at me, smiled and said: "This is going to be a very interesting meeting." "You don't think anything that we do at GM works, do you?" The quickness of my reply startled him: "The opposite is true, but the real question is: How much of what you and I know to be successful GM enfranchised systems engineering, is being practiced by GM maintenance managers at the plant maintenance operation level?" "Let's get right to the point: If I was the son of a GM dealer who owned three dealerships, and my father was about to retire, I, the son wouldn't just grandfather into three valuable franchise properties, that both my dad *and GM built.*"

"There is a distinguished dealership management certification process that is a part of the original franchise contract, one that protects GM's interest from lazy, dumb, arrogant sons. Could General Motors maintenance operations managers pass that certification test? I don't think so!"

"Back to lazy, dumb, arrogant sons. Lazy speaks for itself; Dumb, is never having learned the GM automotive dealership management systems, to include "A, B, C, D, Z" new & used vehicle sales, service department, parts department and office management (accounting, administration, regulatory, systems) practices. Your plants are using CMMS's that don't begin to consider service department, parts department and office management precepts created under the GM franchise!" "That is dumb!"

"You have the most sophisticated accounting systems, embodying the most powerful set of accounting controls of any corporation not having to adhere to fiduciary regulatory compliance. Your dealership service managers forgot more

about costing out a maintenance work order and a parts issue slip than your plant maintenance managers know. As to operational budgeting, your dealers build and get a mini financial-statement for month-to-date management, each business day of the month, and are required to submit a full financial statement each month, no later than the 10th of the following month.

"Yet you have a \$ 10+ billion (correct me if I'm wrong on the money) maintenance "Corporation" within G.M., one that has never produced a financial statement, an entity that would rate abysmally by G.M. accounting standards. If a G.M. Dealer ran his business with such a lack of attention to cost control servicing detail, your franchise contract would allow you to close him down in a month!" The Treasurer turned to the rest of the room, and then back to me, and said: "Perhaps we should start this meeting again. It would appear that I owe you an apology." "Accepted; now let's continue with lazy, dumb, & arrogant sons."

"Arrogance is what happens when politicians, lawyers, engineers, and other manly men, doing manly things (plant maintenance), are allowed to refer to responsible management, accounting and cost containment in business, government and institutions as "Bean Counting." "Why haven't you ever fired anyone who referred to you or your staff as "Bean counters?" "Having the nerve to refer to GM's proven franchise management discipline as bean counting, is a systemic insult; don't your people know this?" "I'm afraid not!" was his quiet reply. I continued" This is all the result of plant maintenance's having been left out of the demand management participation loop regarding those practices, and systems that reflect both GM's proven manufacturing floor and dealership franchise management disciplines. Loss, not profit, is the result of arrogance being equated with accountability!" The Treasurer interjected: "Ok; now I remember! Didn't you write about this subject in a magazine article having to do with somebody named Herbie?" "Exactly," was my response. "This won't take much longer."

The Treasurer seemed delighted: "You really believe in the GM decision management process, don't you?" My reply: "I live by automotive management precepts. This is just positive payback for what GM and the rest of the automotive industry taught me about hard-nosed operations management, especially the financial side of issues such as Plant Maintenance. I find it kind of frightening to imagine a sophisticated corporation like GM, wresting plant maintenance away from internal staff who don't know a tinkers whatever about GM's proven franchise management disciplines, and giving it to outsourcers who know even less about that sophisticated process. That's not what you all taught me 35+ years ago!" Computerized Maintenance Management Systems' design has turned its back on franchise management disciplines. Your tolerating it is inexplicable!"

#### **Analysis:**

"Twenty-two years after the advent of the first microcomputer-based Computerized Maintenance Management System, the average GM maintenance team leader or supervisor or site manager is only costing out 38-40% of all completed maintenance work orders. Another 20-40% of all completed maintenance at these sites appear as uncoded "One-Liners," "Poorly designed work order I/O processes." "Little integration of plant maintenance systems with enterprise resource planning has been accomplished. When you inquire as to why, you are told by CMMS purveyors, that no one ever asks for Calendar Based Maintenance/ERP integration. They are dead wrong! It's common sense that a lack of enfranchised & integrated Conditioned Based (Reliability Centered) Maintenance and Calendar Based Maintenance (CMMS) within Enterprise Resource Planning, and a gross lack of design subscription to automotive franchise management disciplines has hurt GM's bottom line for some time."

"Do all of the automotive manufacturers have this problem?" he asked. "Yes," was my reply. "Little, if any maintenance work order completion costing (down to Cr. Inventory/Dr. Cost of goods sold)

is done, the need for doing so only being given lip service. Plant maintenance systems at GM provide almost nothing in the way out of decision support for the administration of "Plant Customer Work," "Internal Maintenance Tasks," and "Warranty Work" in the practiced dealership tradition." I doubt that your people or the CMMS providers even know what we are talking about!"

"So imagine how negative the effect of the abandonment of the GM franchise methodology practiced by GM dealerships upon the very precept of achieving best of breed maintenance management is at General Motors? There is little if any scheduling or financial attention given to Maintenance Work Order close-out detail. "Upon completion of plant equipment repair, almost none of the completion information is financially categorized. The hours, which have been recorded by the mechanic, are posted to the mechanic's time card 100% of the time, and to the Enterprise Asset Property Ledger 38% of the time. The same is true for material, whose issue is recorded during the part's issue (maintenance inventory system) 80% of the time and costed on the maintenance work order, 38% of the time. The invoices for any "Subcontracted Work" are sent directly to Accounts/Payable, where they are posted 100% of the time, but included in the maintenance work order costing process only 22% of the time, and is posted to a specific Asset Identification number (serial number or property tag) only 16% of the time. Without an accurately posted asset ledger, how can the plant keep track of cost per equipment, and equipment/system. How can it track and collect, Policy and Warranty Claim pledges made by the plant suppliers?"

"Even if you could establish CMMS-generated forecasts for annualized asset care budgets (for the most part you can't), a problem exists. To the 97th percentile, today's CMMS designs for master scheduling and servicing data entry for cost close-out of Customer Service Work; Internal Service Work, and; Warranty Service Work are totally lacking. How can corporate and plant management control costs per operat-

ing asset to prevent nickle and diming in maintenance charges, if the actual costs aren't even being posted to the property ledgers to enable comparison to the budgetary forecast? Today's CMMS's, design entities called EAM (Enterprise Asset Management) doesn't begin to perform plant environment cost control!" "I can't be more comprehensive in describing this problem." You downsize staff, which is the equate of shooting one half of the gold miners standing on top of the Mother Lode!" From somewhere in the room: "That's an overblown exaggeration Mark!" My reply: "OK! Let me give you an example."

"The Warranty Claims tracking feature represented in today's CMMS's track warranty expiration dates, not individual Warranty Claims Receivable events, as do automotive dealership management systems. Therefore warranty collection statistics are dismal; 9-38% of claims posted; 6-14% of work identified as significant warranty/policy category tasks go uncollected. Expressed as money; that's 8¢-\$1.24 per square foot of plant/year, with a mean of 66¢ per square foot of plant/year. For a 5,500,000 square foot plant, that's \$3,630,000/year for want of a \$450.00 commercial off-the-shelf accounting package. Policy claims collection amounts to an additional 35% of that figure. How many of your plant maintenance managers even know what a policy claim is?"

Talk about timing; one of the attendees spoke up: "What is a policy claim Mark, some fancy term that you just invented while sitting there?" The whole room, including the Treasurer cracked up, their snickering lasting for a good 45 seconds. I broke in: "Please don't fire him; he's a student of mine? [More laughter] The Treasurer knew what a policy claim was and what 66¢ per square foot of plant/year throughout GM worldwide added up to. He just sat there and shook his head.

#### **Closing commentary:**

The meeting had ended. Walking down the hall towards his office, my host and I were overheard completing our conversation. "Mark, I'm beginning to un-

derstand the form of effort we'll need to put in place to turn maintenance around. Where do we begin?" ". . . . . from a manufacturing perspective, they need to get a better foothold as to how plant maintenance on the manufacturing floor should work. If they had, Total Productive Maintenance would have accomplished more at General Motors."

"Guess what else they need from the financial & management perspective?" "I'm almost afraid to ask!" he replied. "I'll answer your question with a pointed question!" Do you have the corporate training capacity to process a very large group of GM maintenance personnel through GM Dealership Management School? When do you plan to show the world how unlaughable the term Bean Counting is, by eliminating its use at GM?" "Oh my God! he replied. "Do the other auto manufacturers realize what an immense problem they have with plant maintenance?" "I don't know whether or not they'll ever get past being angry with me over the fact that the article's title wasn't captioned "The Treasurer of Ford, or Chrysler, or Toyota, or . . . ." He smiled, almost pleased by my original choice.

"What about E-Commerce? I read your article series regarding that subject. What you have written is frightening! Can we spend some time discussing it? We have completed today's agenda, haven't we?" Everyone strained to hear my answer to that, as we rounded the inside corner of the building. This time, I was shaking my head. GM's E-Commerce challenges were even more problematic, more needlessly costly than Plant Maintenance. It was like an Escher painting, you could start anywhere . . . .

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Dr. Goldstein is the principal owner of Manufacturing and Maintenance Associates, Inc. of New Jersey, Manufacturing and Maintenance InfoSource of Northern Virginia, and is the founder of Manufacturing and Maintenance Systems, Inc. of Illinois. With over 38 years of corporate experience, he has served such companies as ITT, IBM, Honeywell, DTI, Inc., Ogden and COMNET Corporation.

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