



# Goal Systems International

“CONSTRUCTING AND COMMUNICATING COMMON SENSE”

## “Our goal is... What *IS* our goal?”

by H. WILLIAM DETTMER

Organizations of all kinds share a similar challenge: how to achieve their goals, and how to assure that their members aren't working at cross purposes in the process. This might seem like an obvious thing. After all, everybody knows what the organization's goal is, don't they? Well...no. Not in all cases, and maybe not even in most cases. Consider this situation.

### The Supermarket Supply Chain Example

A few years ago, I was enlisted by an executive vice-president of a large American supermarket chain to help focus their improvement efforts at their semi-annual supply chain conference. This supermarket corporation operated 1,800 retail stores and 125 distribution centers throughout the western two-thirds of the United States. The 35 participants in this supply chain conference were vice-presidents.

We met in their “think tank,” a large corner meeting room in the company's corporate headquarters that they had outfitted as a creative workshop and problem-solving facility. Besides the usual work tables and digital projectors, the room was equipped with half a dozen large, free-standing cloth-covered, padded room dividers. (**Figure 1**) Working groups used these seven-foot-by-seven-foot panels as displays for their “brainstorming” efforts. Writing with heavy felt-tip pens on colored sheets of paper and using push-pins, team members would post their ideas on the panels for all to see. The various inputs of individuals could then be modified, consolidated, and rearranged, like the pieces of a puzzle, to produce a structured result.

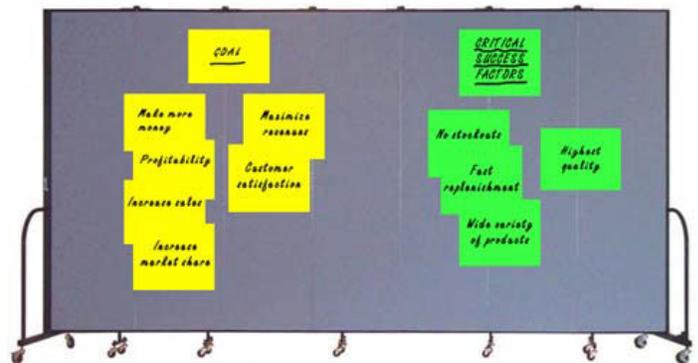


Figure 1. Brainstorming a Goal and CSF

Over the course of four hours, I posed two questions to the vice-presidents: *what is the goal of your organization*, and *what are the critical success factors for achieving it?* I fully expected to devote no more than ten to fifteen minutes in reaching consensus on the first question. In reality, it required about an hour. I asked each of the 35 participants to write in a concise sentence what they believed the company's goal was. We posted the thirty-five inputs on one of the big panels, so that everyone could see all of them.

After consolidating multiple inputs that said essentially the same thing, we still had about ten different ideas of what the company's goal was. In the second half of the session, the same solicitation about critical success factors produced about a dozen similar consolidated statements. Think about that for a moment: twelve different factors that are absolutely critical to achieving an organization's goal. Miss just one, and—sorry!—you didn't achieve your goal. Which of these dozen balls in the air do you worry about catching first?



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## Strategy Development and System Problem Solving

Strategy development and system [1] problem solving are basically opposite sides of the same coin. A clearly articulated *goal* and *critical success factors* are the heart and soul of an effective strategy. They provide the focus for all subsequent efforts. They can also help define the metrics that system leaders use to determine whether their efforts are succeeding. At the same time, a well-defined goal and critical success factors provide the benchmarks for deciding what parts of the system need attention—in other words, they can guide problem solving. In order to figure out why a system may be failing to live up to expectations, those expectations must have been established in the first place. Typically, such expectations are inherent in the expression of the goal and critical success factors of a system. In systems as complex as the ones we see today, it's no small matter to “separate the critical few from the trivial many” when deciding where to apply limited improvement resources.

## Goal and Critical Success Factors Defined

Before we go any further, it's important to establish a common understanding of the terms *goal* and *critical success factor*.

*Goal:* The ultimate purpose for which the system exists (or was created)—the end to which a system's collective efforts are directed. [2] In human systems or organizations, this is the outcome that the owners say is the preminent or paramount objective of the system.

*Critical Success Factor:* The limited number of high-level terminal outcomes without which the system's goal cannot be achieved—the few necessary conditions which, if satisfied, represent goal attainment. There are usually *no more than three to five* of such factors. (**Figure 2**)

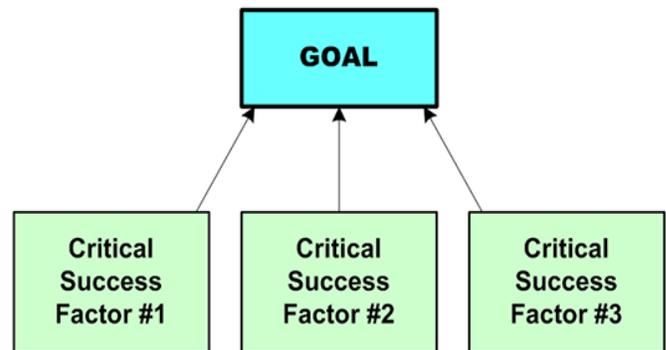


Figure 2. Goal and Critical Success Factors

What, exactly, is a high-level terminal outcome? It's a somewhat abstract summary condition. Much like the goal, it represents the sum of a significant number of functional tasks or activities.

## The Goal Tree (GT)

When we consider that the goal is the logical outcome of satisfying critical success factors, and that critical success factors are the result of combining component functional tasks or activities, a visual hierarchy naturally suggests itself. (**Figure 3**)

This structure is referred to as a Goal Tree (GT). It accomplishes two things. First, it reveals the logical hierarchy of necessary conditions that underlie the goal. (The critical success factors are, after all, high-level necessary conditions.) The second thing the Goal Tree does is to reveal lateral relationships between layers of necessary conditions that may not be obvious. This visual hierarchy provides a richer picture of the requirements for organizational success.



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The Goal Tree is not an entirely new concept. Perhaps the first conceptual representation of such a hierarchy was Peter Drucker’s philosophy of management by objectives (MBO), which he first advanced in 1954. It should be noted, however, that the Goal Tree is *not* equivalent to MBO. It merely constitutes the benchmark for success—what has to happen for the goal to be attained. It says nothing about what actually happens in reality, nor does it reflect external environmental uncertainty or variation.

Drucker’s concept of MBO included determining the objectives of employees at each level of the organization by participation. In other words, these objectives were agreed upon by each subordinate in concert with his superior. Most objectives were likely to be quantified performance levels (production quotas, sales, etc.). In practice, though Drucker tried to insist otherwise, there was often little consideration of lateral impacts—the effects of maximizing one department’s objective performance on the performance of another department. For instance, if the sales department maximized sales volume, would production’s capacity be overrun to the extent that it wouldn’t be able to meet promises to customers? One thing that MBO attempted to do, however, was to relate the performance of the rank and file to the summary performance of higher company levels.

A Goal Tree provides a similar vertical relationship among levels of objectives. In fact, it would be accurate to characterize the Goal Tree as *a nested hierarchy of goals and critical success factors*. The critical success factor, or perhaps a supporting necessary condition, at a higher level is likely to be a goal of a lower level. (Figure 4) This configuration is important to keep in mind, because it allows senior management to clearly demonstrate a connection—a “bridge”—between the daily efforts of the rank-and-file and the long term success of the larger organization. Moreover, unlike the MBO structure, an effectively constructed Goal Tree clearly delineates the lateral dependencies among the various components of the organizational system.

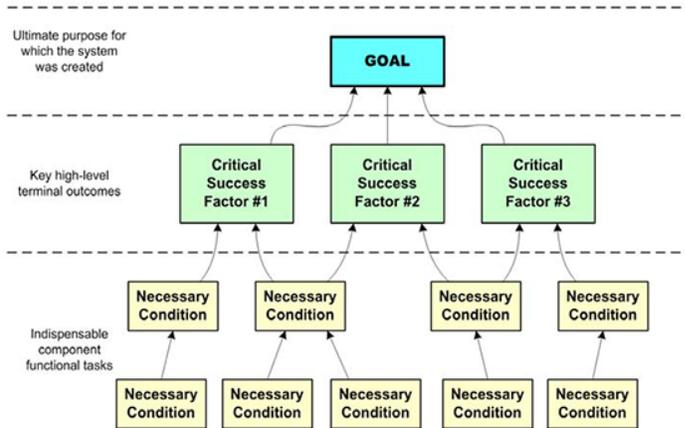


Figure 3. Goal Tree (GT)

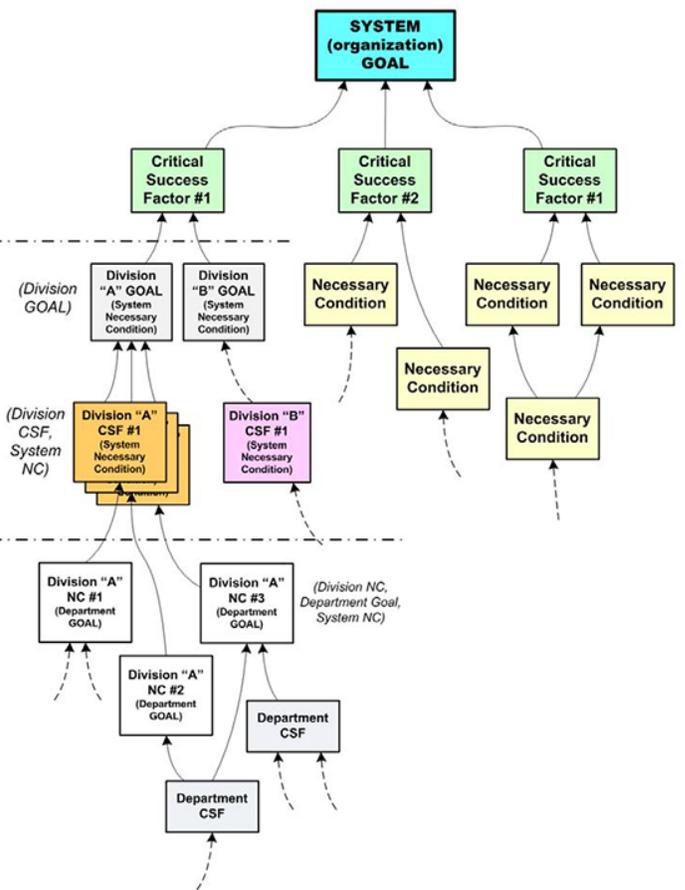


Figure 4. A Nested Hierarchy



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## Broader to More Specific

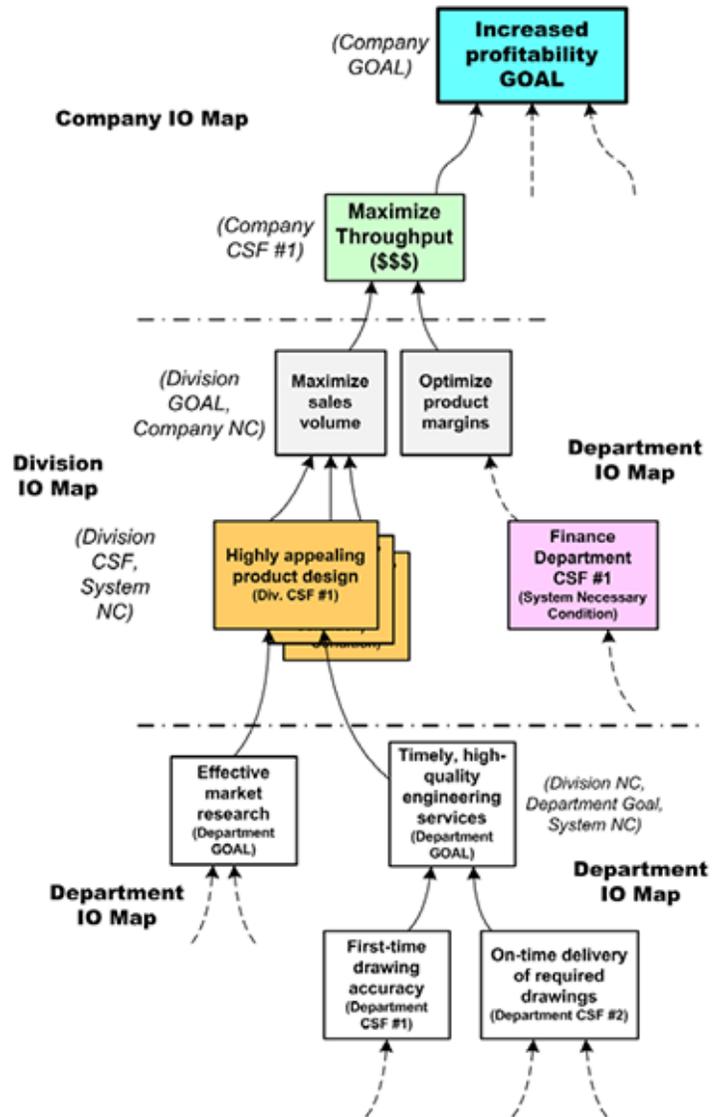
The critical success factors and goal at the highest level of a system will typically be broader and more abstract, with successively lower levels of supporting necessary conditions becoming more discrete and specific. For example, the critical success factors and goal of a company will normally address the performance of the company as a whole, whereas the necessary conditions will embody the tasks and activities that must be successfully completed at functional levels, such as engineering, production, sales, and distribution.

Where the Goal Trees of subordinate departments are components of the larger system Goal Tree, the nature of the lower level goals and critical success factors changes—they become *more discrete and functional* in nature. For example, the Goal Tree of an engineering department might reflect a goal that reads “Timely, high-quality engineering services, the first time.” Critical success factors supporting that goal might be “First-time drawing accuracy” and “On-time delivery of required drawings.” Each of these critical success factors requires the satisfaction of necessary conditions that are more specific and which reside at a lower functional level. **Figure 5** illustrates this general-to-specific progression in descending Goal Trees.

## Generic Goal Trees

When the systems concerned are human organizations, at the highest system level there is surprisingly little difference in the critical success factors from one organization to the next. For example, consider three different manufacturing companies. One builds automobiles, another produces prefabricated homes, and the third manufactures hand tools. Each differs from the others in all kinds of ways, from the size and scope of their production processes, the nature of their incoming and outgoing supply chains, and their marketing and sales systems.

Yet as different as these companies might be, they are largely the same—generic—in the structure of goal, critical success factors, and the supporting necessary conditions needed to achieve them. The generic Goal Tree in **Figure 6**, with some modifications in



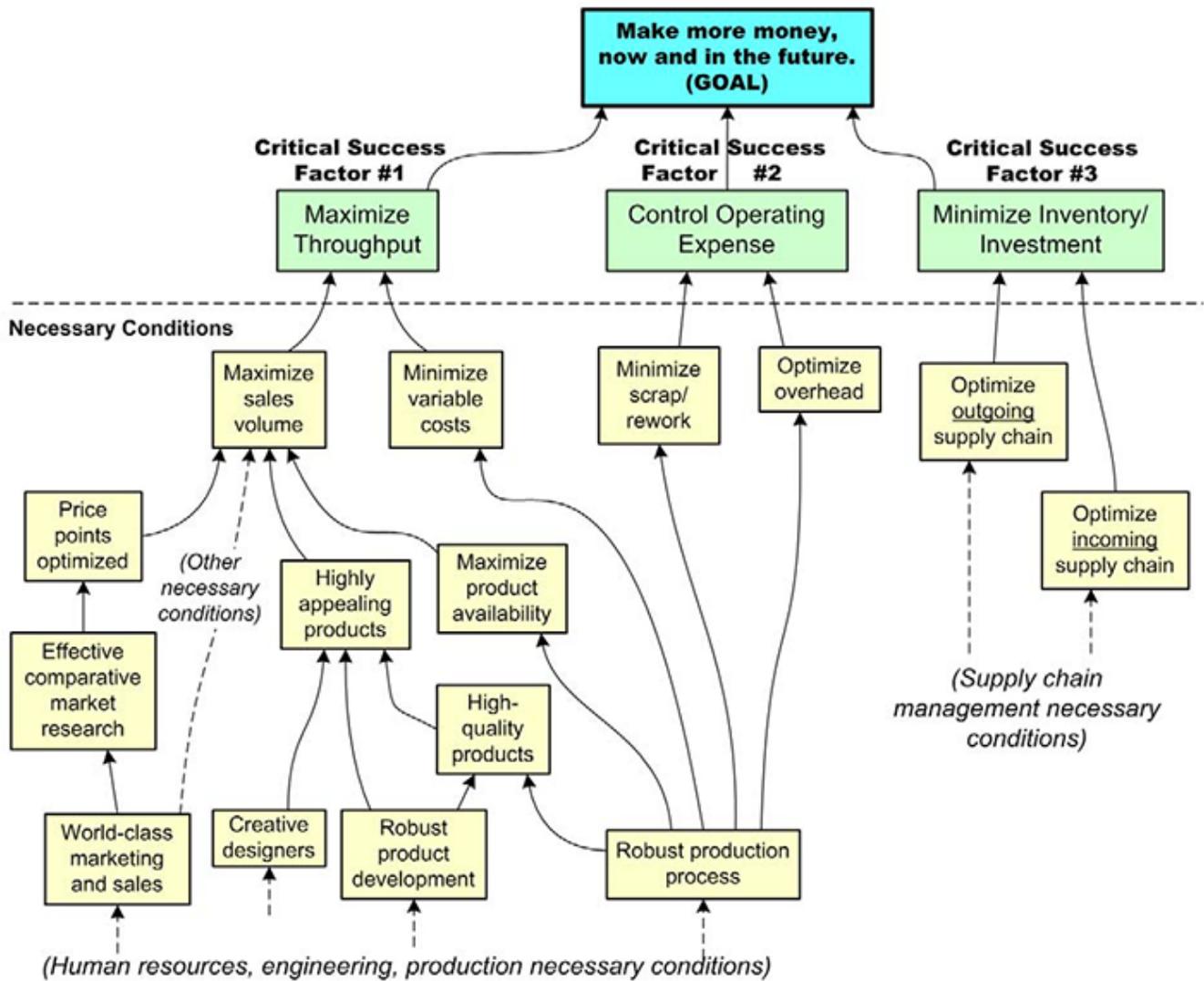
**Figure 5. General-to-Specific in Nested Goal Trees**



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largely the same (at the upper levels) for each of them.



**Figure 6. Goal Tree - Commercial For-Profit Company**

Notice a few characteristics about **Figure 6**:

- The goal and critical success factors are generic to *any* commercial for-profit company
- The necessary conditions become progressively more detailed, specific, and functional as one descends lower in the Goal Tree
- Though this Goal Tree is incomplete (because of space limitations), it should be clear that this same Goal Tree can apply to a whole spectrum of manufacturing organizations. Certainly, some modifications might be required to account for differences among different kinds of manufacturers, but almost without exception these variations would



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at the lowest layers of necessary conditions.

■ Finally, although the three examples cited are *manufacturing* companies (and the Goal Tree in **Figure 6** reflects this), the upper part of the Goal Tree—and many of the supporting necessary conditions—are transferable to *service* companies as well. In other words, if it's a for-profit company of any kind, the same goal and critical success factors pertain.

## “The goal cannot be...”

In the mid-1990s, in an on-line discussion group, one person took issue with Goldratt's assumption that the goal of a for-profit company could (or should) be “to make more money, now and in the future.” To this observer, apparently there was something base or mercenary about elevating profit to the preeminent position of *goal* in an organization. In fact, he asserted that the goal “cannot be” to make money—it *must* be something higher, more altruistic or noble than the mere accumulation of wealth. [4]

Recently, a close friend and professional colleague made a similar, though perhaps not quite so adamant, observation:

...for me, now and forevermore, defining a company goal as “make money now and in the future” is impoverished. It's fine as a necessary condition.

I suggest all human creations have a broader goal: something like [the] enhance[ment of] the well-being of some portion of humanity. Even weapon creators do so to protect their chosen portion of humanity. Many, and possibly most, businesses started with a broader goal than making money. Often it was something to do with satisfying customers in some particular way. Sometimes it was to foster a technical idea. I think in all cases businesses should include their employees in the portion of humanity they wish to help flourish. Investors are only a source of cash to a business...again one necessary condition but insufficient to keep any business alive; just like oxygen is necessary and not sufficient to keep an animal alive.

There is something compelling about this position, and personally I tend to agree with it. However, from a moral perspective it lacks foundation. Setting aside the deep philosophical arguments of the Enlightenment concerning judgments about right and wrong, I would ask: *In a free society, who has the moral authority to determine what any goal—personal or organizational—is, or can be?* In the 1770s, America fought a revolution to gain independence from Great Britain over just such questions as this. (Anybody remember a particularly noteworthy passage from America's Declaration of Independence: “...the pursuit of happiness”?)

I submit that the only parties with the moral authority to decide what a system's goal is are its owners. Consider, for example, the small entrepreneurial business, perhaps a family bakery or a repair shop. I find it difficult to believe that the proprietors of such businesses would countenance some outsider telling them what their goal should or shouldn't be—or worse, what it can or can't be.

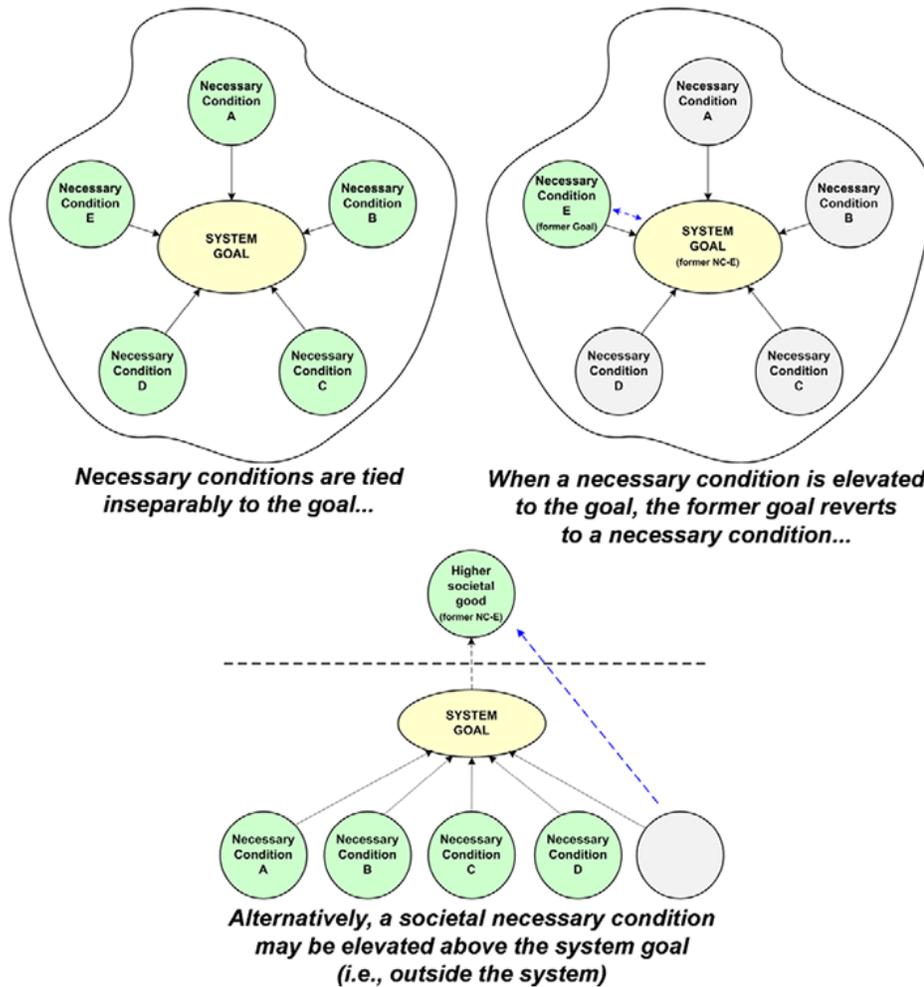
If the system's owner decides that profitability is the ultimate goal of the system, then *that's* what it is. Conversely, if they decide that the goal is something “more noble” or beneficial to society as a whole, then *that's* what the goal is. There is nothing inherently “evil” about the profit motive. Even Samuel Gompers, the founder of the American Federation of Labor, observed that “the worst crime against working people is a company which fails to operate at a profit.” [5]



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If one accepts the basic principle that only a system’s owners have the moral authority to determine its ultimate goal, then where does societal well-being or improvement of the human condition fit into the goal structure of a for-profit organization? I suggest three possible alternatives: as either a necessary condition of the financial goal, as the goal (with profitability reverting to a necessary condition for goal attainment), or as a meta-level goal beyond the system boundary. Consider **Figure 7**.



**Figure 7. Relationship of Goals and Necessary Conditions**

Necessary conditions are tied inseparably to a system’s goal. The upper left part of **Figure 7** illustrates a system with six requirements for success. One of these, at the system owner’s discretion, is designated the goal—the preeminent aim of the system. The other five are indispensably necessary to the attainment of that goal. But what if a different system owner decides on a different goal? In this case, because of the inseparable dependency among the six requirements, the former goal reverts to a supporting necessary condition, as reflected in the upper right of **Figure 7**. Alternatively, a system’s moral obligation to society might be repositioned as a broader societal necessary condition, outside the system, for which the successful attainment of the system’s goal itself becomes

a necessary condition. In much the same way as illustrated in **Figure 5**, because any human system is a “nested” part of a larger system, its goal may represent a necessary condition of that larger system.

So, if you’re a system owner, feel free to determine what your system’s goal is without influence from the opinions of others. It’s your moral right to do so. If you choose a financial (profit) goal for your system that’s what it is. But you might be remiss if you fail to consider the role of larger societal benefit somewhere in the picture. If you want that larger societal benefit to be the goal, indulge yourself. Again, it’s your moral right to do so. If you’re part of a system—but perhaps not the owner—trying to decide what the system goal is, put yourself in the position of the system’s owner(s). If that owner has previously defined the goal, the issue is settled. If not, you can either ask or speculate what it might be. If the system is collectively owned, such as a publicly traded corporation, you can put yourself in the shoes of the stockholders—what would *they* say it is? Regardless of the situation, only the system’s owners have the moral right to decide what the goal is.

### **Three Organizational System Archetypes**

The companies described in relation to **Figure 6** are commercial, for-profit organizations. But there are two other *archetypes* of organizations, as well: non-governmental, or not-for-profit, groups and government agencies. These kinds of organizations qualify as *systems* every bit as much as commercial, for-profit companies do. Consequently, they, too, should be able to articulate goals, critical success factors, and supporting necessary conditions. Of course, such non-commercial entities could be expected to have distinctly different goals and critical success factors, couldn’t they? Not entirely.

### **Not-for-Profit/Non-Governmental Organizations (NFP/NGO)**

Let’s first consider the not-for-profit organization or non-governmental organization. Typically, these are charitable or community service groups such as the United Way or Doctors Without Borders. Their goals are indisputably not financial. The United Way supports good works of all kinds. Here is its goal, from its web site: **[6]**

*United Way’s goal is to create long-lasting changes by addressing the underlying causes of problems [in education, financial income stability, and health.]*

A noble goal, for sure. But what are the critical success factors—the terminal outcomes that represent achievement of this goal? I submit that at least three of them are essentially the same as those of the commercial, for-profit company:

1. Generate income
2. Keep costs under control
3. Minimize inventory/ investment

The United Way, like most charitable organizations, lives or dies on the amount of money it brings in, either through contributions of individuals or grants by large foundations. These critical success factors are essentially the same as those of a commercial company. The United Way has expenses, both fixed and variable. It has inventory and capital investment. The only difference lies how it handles the money it brings in—it plows the income back into its expenses and mission activities, rather than distributing dividends to shareholders.

The same is true for a service organization, such as *Médecins Sans Frontières* (Doctors Without Borders). Here is the MSF mission statement (the closest thing to a concise, focused goal available from its web site): [7]

*Médecins Sans Frontières is an international, independent, medical humanitarian organisation that delivers emergency aid to people affected by armed conflict, epidemics, healthcare exclusion and natural or man-made disasters.*

As with the United Way, Doctors Without Borders has a non-financial goal. But at least three of its critical success factors would be remarkably similar to those of United Way's: Generate income, control costs, and minimize inventory or capital investment. It requires financial input to execute its programs, even though volunteer service of physicians and nurses is an invaluable component. It has expenses (costs) to be paid and it has an infrastructure of equipment and facilities to maintain.

So, in what strategic respect are NFP/NGO like these really different from commercial, for-profit companies? Primarily in two respects: their overall goal, and the addition of a fourth critical success factor: *successful delivery of some kind of service or tangible item.* (Figure 8)

Unlike a commercial, for-profit company, a NFP/NGO typically has a goal that can't be expressed in financial terms. Usually, that goal is expressed in terms of some beneficial effects on society, such as those of the United Way and Doctors Without Borders. The NFP/NGO also has a fourth critical success factor, which is the effective, efficient execution of its chosen operations. Like the goal, this CSF, too, is probably not measurable in financial terms. Yet the same three other CSF do apply to the NFP/NGO as well. Income (usually through fund-raising or other contributions) is the fuel that powers the mission activity. But the efficient use of that income demands the same CSF as in a for-profit company: minimizing investment in capital assets or inventory, and control of fixed costs (overhead).

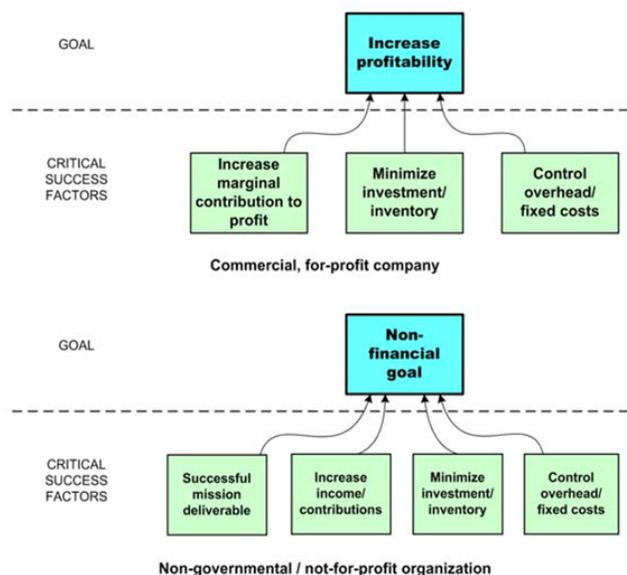


Figure 8. For-profit company versus not-for-profit organization

## Government Agencies

So, what about government agencies? We've seen the similarities between for-profit and not-for-profit organizations in their critical success factors. Do the same similarities apply to government agencies? Close, but not entirely.

A government agency has two critical success factors that coincide with the other organizational types: *minimizing investment/inventory* and *controlling overhead/fixed costs*.

(Admittedly, it's well known that government organizations typically expand to consume the funding available for them to spend—and even supplemental funding they may not have available. Moreover, government organizations are accomplished at preserving their existence, often long after they have outlived their usefulness. The U.S. Interstate Commerce Commission is a classic case in point. But “mission creep” aside, a prudent government agency, responsive and responsible to the taxpayers that fund it, should be striving to deliver the maximum in services to citizens with an efficient minimum of inventory/capital investment and overhead. Unfortunately, it rarely works out that way.)

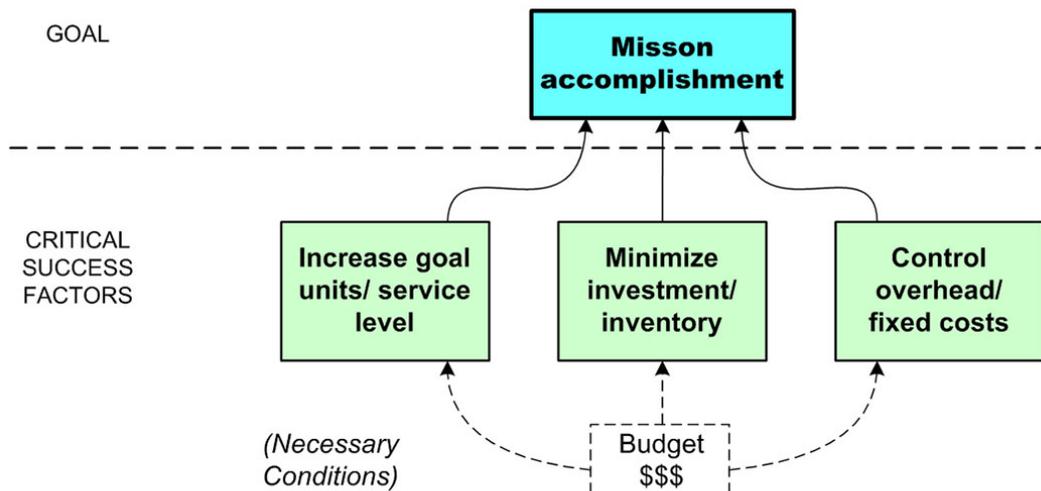


Figure 9. Goal and Critical Success Factors - Government Agency

However, it's in the other critical success factor that government agencies diverge from commercial companies but are similar to not-for-profit organizations. (Figure 9)

Notice, first, the critical success factor on the left. “Increase goal units/ service level” is a generalized way of saying that the agency should try to maximize performance against non-financial metrics that characterize the nature of its service. Notice, too, the goal of “Mission accomplishment.” This represents the ultimate goal of the organization.

Where do financial considerations enter into the discussion? In government agencies, it's clearly through budgets, which are provided from outside the agency, from tax revenues. (One might actually say that the taxpayer is the customer of the government agency, providing financial consideration for a service. But the collection of taxes and their

allocation to government agencies is removed by too many intermediate steps to consider it in any way comparable to a commercial transaction.)

But governmental budgets are not a high-level terminal outcome, which is the definition of a critical success factor. Rather, they are a *supporting necessary condition*—indispensable, to be sure, but supporting nonetheless. Without such a necessary condition, the critical success factors indicated in **Figure 9** never eventuate. Beside budgets, many other necessary conditions are required to support the critical success factors of government agencies. The same is true for not-for-profit organizations and commercial companies. But for government agencies, budget is the linchpin.

## **SUMMARY AND CONCLUSION**

The development of strategy, or the resolution of complex system problems, requires a clear understanding of the system's goal and critical success factors. These elements provide the definable benchmark against which current success can be determined, and they don't change very often. Once articulated, they normally remain valid indefinitely, until the nature of the organization's goal changes.

A Goal Tree provides a means of defining the system's goal, identifying the critical success factors essential to its achievement, and the "constellation" of supporting necessary conditions required to satisfy them. The very act of constructing a Goal Tree forces people to consciously consider why their system exists and what it takes to make it succeed. A nominal effort to do this improves the odds of identifying system shortcomings quickly and accurately, the first time.

However, articulating a system's goal and critical success factors is not always easy to do. The effort can benefit from understanding the concept of generic Goal Trees.

- Goal Trees can be separated into two vertical components: the goal and critical success factors above, and all supporting necessary conditions below.
- There will always be only one goal—the ultimate purpose of the system—and no more than three to five critical success factors—high-level terminal outcomes—at the top of any Goal Tree.
- Only a system's owners have the moral authority to determine what that system's ultimate goal could or should be.
- There may be many levels, or layers, of necessary conditions below the critical success factors. It is at the level of necessary conditions that the unique, discrete tasks and activities will reflect the specific details of each individual system.
- Three organizational archetypes encompass the broad population of human organizations. The goal and critical success factors are largely the same for every organization that falls within the same archetype. These archetypes can be generally categorized as *commercial/for-profit*, *nongovernmental/not-for-profit*, and *government agency*. Virtually all human organizations fit into one of these categories.
- A Goal Tree can be constructed faster and more easily if one can identify which organizational archetype the system in question fits into. The generic goal-critical success factor for that archetype can then be the starting point. (It may be necessary to refine the

wording of the goal or critical success factors, but the generic wording is a good place to begin.)

- Within each organizational archetype, generic Goal Trees can be used for the same kind of organization. (E.g., product or service company, school system, charity, etc.)
- Because organizational goals don't change very often, and large-scale external environmental changes are rare, once an organization's Goal Tree is complete (and verified), it can provide a dependable performance benchmark almost indefinitely.

A well-constructed Goal Tree is an invaluable organizational tool, regardless of the organization type. In its goal and critical success factors, it provides a reliable, constant reference for “navigating the stormy seas” of the operating environment. At any time, an organization's leaders—or mid-level managers—can examine the current situation and compare it with the channel marker of the Goal Tree, determining whether they are on course or drifting away from the path to the goal.

A Goal Tree can provide all types of organizations the benchmark for answering the question, “How are we doing on our journey to the goal?” It is a dependable starting point for a strategic progress analysis and for complex system problem solving. ♦

## ENDNOTES

1. The words “system” and “organization” are used interchangeably here. Though not all systems are organizations, all organizations are systems. But because “systems” implies a broader discipline of inquiry, we'll use “system” to refer to human organizations.
2. Webster's New Universal Unabridged Dictionary, 1989
3. Drucker, Peter F., *The Practice of Management*, NY: Harper & Row, 1954.
4. “Beware of altruism. It is based on self-deception, the root of all evil. If tempted by something that feels “altruistic” examine your motives and root out that self-deception. Then, if you still want to do it, wallow in it!” (Heinlein, R.A. *The Notebooks of Lazarus Long*)
5. Rothschild, Michael. *Bionomics: Economy as Business Ecosystem*. Washington, D.C.: BeardBooks, 1990, p. 115.
6. <http://national.unitedway.org/ourwork/>
7. <http://www.msf.org/>

