

# **The Program Strike Zone: Beyond the Bounding Box**

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## *Introduction*

A challenge historically plaguing business management has been the ability to convert comprehensive strategic objectives into effective execution and tangible results. In product development companies, many times a chasm exists between business objectives and program or project planning and execution output, resulting in poor product performance in the marketplace.

In the paper Program Management Linking Business Strategy to Product and IT Development we discussed program management as a proven business model which effectively links the business strategy of the organization to the ability to execute programs critical to the objectives of the company. This article introduces a powerful tool called the Program Strike Zone which serves as a catalyst for bridging business planning to program execution activities. We will explain its value to both executive and program managers and illustrate how it is used within two well-known companies, Santa Clara, California-based Intel Corporation and Beaverton, Oregon-based Tektronix Inc.

## *Situational Snapshot*

Much has been written about the need to identify, track and manage the critical success factors on a program or project. Typically, the focus is on the back end of a program where tracking and control are fundamental practices for ensuring success is achieved. However, it is all too common for programs to complete “on target” with respect to time, cost and quality, but fail to achieve the business results anticipated. Several key factors contribute to this situation:

- Identification of the critical success factors occur too late in the program life cycle, typically at the end of the planning phase and into the execution phase.
- Multiple internal and external forces come in to play which increase program complexity.
- Programs operate in a dynamic environment which introduces continual change.
- Limited executive management oversight is typically applied to appropriately balance the skills, capabilities and experience of a program team with the corresponding program complexity and level of risk.

The culmination of these factors results in an organization’s failure to gain the necessary return on the investment in program resources. The Program Strike Zone is a tool used to manage the factors above in order to achieve intended business results. It was derived, defined and characterized from practices and behaviour at Intel Corporation and Tektronix, Inc. Tektronix uses the term "Bounding Box" to describe similar practices. It is likely that other companies utilize similar practices as well, however, description of

these practices in literature is limited.

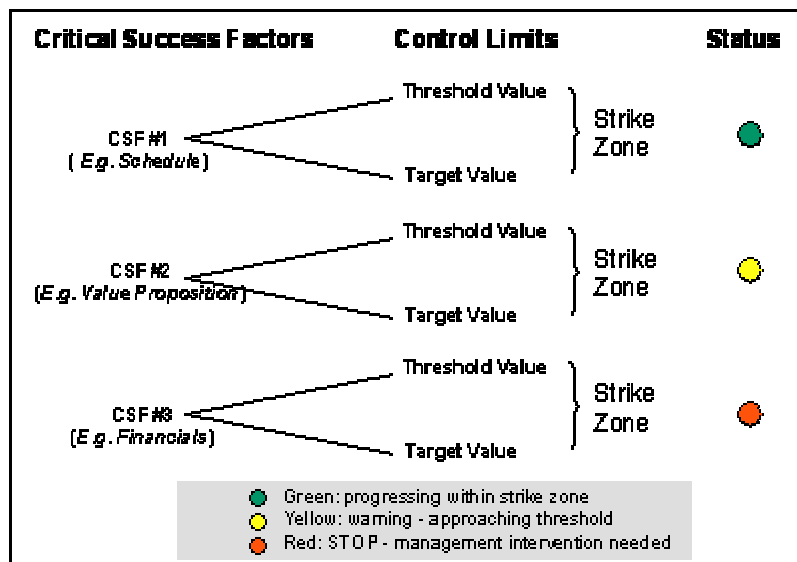
### ***The Program Strike Zone***

The Program Strike Zone (analogous with a baseball pitcher seeking the “sweet spot” for throwing a successful strike) is utilized to identify the critical success factors of a program, to help the organization track progress toward achievement of the key business results desired, and to set the boundaries within which a program team can successfully operate without direct management involvement. It documents a set of control limits for *each* critical success factor that help to determine if the program is on track, and serve as the dividing lines between program team empowerment and executive management intervention.

The Program Strike Zone is used by executive managers and program managers alike. Executive managers utilize the Program Strike Zone to ensure a new product definition supports business objectives, and to establish control limits in order to assure that the program team’s capabilities and performance are in balance with the complexity of the program. Additionally, it establishes executive management’s role in the decision making process and provides a catalyst to keep them actively engaged in the success of the effort through all phases of the program. Involvement by executive management in the early stages of product characterization tends to enable a cleaner start to product development programs.

Program managers utilize the Program Strike Zone to establish the program vision based upon the critical success factors for the organization, to negotiate and establish their empowerment boundaries with executive management, to communicate overall program progress and success, and to facilitate various trade-off decisions throughout the program life cycle.

Exhibit 1 illustrates the elements of the Program Strike Zone. Elements include the critical success factors for the program, target and threshold control limits, and a high-level status indicator.



## **Exhibit 1: The Program Strike Zone Concept**

Identification of the critical success factors must begin during the definition phase of a program to ensure the product or service definition supports key business objective such as profitability, time-to-market, performance and technology integration

The critical success factors represent a subset of the metrics and other criteria normally tracked by a program team. The Program Strike Zone should include only the critical few success factors that represent business objectives. Each organization will have a unique set of critical success factors based upon its products or services and how it chooses to measure success. Critical success factors deemed as “must haves” by groups within Tektronix and Intel for new product development programs include market, financial and schedule targets, value proposition of the product, and technology objectives.

The target and threshold control limits shown in Exhibit 1 form the strike zone of success for each critical success factor. The target value for critical success factor is that which the program business case and baseline plan is based. The threshold value represents the upper or lower limit of success for a particular critical success factor.

As long as the program progresses within the strike zone of each critical success factor, the program is considered on target and the program manager remains empowered to manage the program through the development life cycle. As indicated in the exhibit, program progress can be tracked via a “dashboard” approach with “status-light” reporting that quickly summarizes progress for executive management.

The Program Strike Zone is dynamic in nature in that the critical success factors identified may be adjusted or changed as the business or competitive environment evolves during the life of the program. For product development programs at Intel and Tektronix, the Program Strike Zone is initiated in the definition stage to align a product concept to critical success factors that represent key business objectives. During the planning stage, it is populated with a full set of critical success factors that align business objectives to the program plan. This effectively sets the course to success for the program. During the execution stage, the Program Strike Zone is utilized to guide the activities and decisions of the program team, and to gauge overall program progress. Finally, during the closure phase, it is utilized to determine program completion and success.

### ***Executive Management and the Program Strike Zone***

Tektronix, Inc, uses a similar tool (called the Bounding Box within Tektronix) on all of their new product development programs. The Program Strike Zone for a program code named NEPTUNE, a product intended for use in the communications test market, is depicted in Exhibit 2. (Note: This real example represents a composite program with many of the values changed for proprietary reasons)

<b>Program Strike Zone</b>			
<b>Critical Success Factors</b>	<b>Strike Zone</b>		<b>Status</b>
	<b>Target</b>	<b>Threshold</b>	
<b>Value Proposition:</b>			
▪ Increase market share in product segment	10%	5%	●
▪ Order growth within 6 months of introduction			
▪ Market share increase one year after introduction	5%	0%	●
<b>Schedule:</b>			
▪ Program Initiation Approval	1/3/2000	1/15/2000	●
▪ Product Proposal Approval	6/1/2000	6/30/2000	●
▪ Engineering Release Approval	4/15/2001	4/30/2001	●
▪ Product Release to Customers	5/30/2001	6/15/2001	●
<b>Financials</b>			
▪ Program Budget	100% of plan	105% of plan	●
▪ Product Cost	\$8500	\$8900	●
▪ Profitability Index	2.0	1.8	●

**Exhibit 2: Tektronix Program Strike Zone Example**

The initial set of critical success factors shown were derived directly from the approved business strategy and product roadmaps for this specific product line at Tektronix, and form the basis for insuring that business objectives are converted into executable deliverables to be managed by the program team. The control limits for each success factor were negotiated between the program manager and the general manager based upon the general manager's assessment of the team's capabilities, experience and past track record. The threshold values were then balanced against the new program's complexities and risks, and adjusted accordingly.

In order to keep the programs on target, a philosophy of "no surprises to management" keeps senior managers actively engaged and contributing to rapid decision making. During the life of the NEPTUNE program, the critical success factors were violated on several occasions, creating the need for executive management to intervene in the program. Executive management either adjusted control limits appropriately or modified deliverables to reset the program objectives. There is always the possibility that a barrier or issue is so significant that senior management sees limited probability of success, resulting in program cancellation early in the cycle to eliminate further investment of resources.

Critical success factors were added to this program as the development proceeded due to the fact that more was learned about the risks facing the program. This enabled management to further characterize the success factors and control limits. The program could only be formally closed once all the program critical success factors documented for the NEPTUNE product had been met or accepted by executive management.

### ***Program Management and the Program Strike Zone***

Like Tektronix, the Program Strike Zone is an important communication and management tool for program managers within Intel. It's utilized to set and communicate the vision for the program team by identifying the elements of program success as gauged

by a business unit. Additionally, the Program Strike Zone is used to manage change at the program level and to periodically communicate status to executive management.

Exhibit 3 shows an example of an abbreviated Program Strike Zone from Intel (called “Success Criteria Document” within Intel).

<b>Program Strike Zone</b>			
<b>Critical Success Factors</b>	<b>Strike Zone</b>		<b>Status</b>
<b>Schedule:</b> <ul style="list-style-type: none"> <li>▪ Definition approval</li> <li>▪ Program plan approval</li> <li>▪ Initial “power-on”</li> <li>▪ First beta release</li> <li>▪ Product launch</li> </ul>	<b>Target</b>	<b>Threshold</b>	
	March 15, 2004	March 30, 2004	●
	June 15, 2004	June 30, 2004	●
	October 1, 2004	November 1, 2004	●
	March 1, 2005	April 7, 2005	●
	June 30, 2005	August 15, 2005	●
<b>Resources</b> <ul style="list-style-type: none"> <li>▪ Team staffing commitments complete</li> <li>▪ Staffing gaps</li> </ul>	June 30, 2004	July 15, 2004	●
	All project teams staffed at min level	No critical path resource gaps	●
<b>Technology</b> <ul style="list-style-type: none"> <li>▪ Technology identification complete</li> <li>▪ Technology development                             <ul style="list-style-type: none"> <li>▪ Core technologies</li> </ul> </li> <li>▪ Leading technologies</li> </ul>	April 30, 2004	May 15, 2004	●
	Priority 1,2 tech’s Delivered @ Alpha	Priority 1 tech’s delivered @ Alpha	●
	Priority 1,2,3 tech’s delivered @ Beta	Priority 1,2 tech’s delivered @ Beta	●
			●

**Exhibit 3: Intel Program Strike Zone Example**

The control limits define the empowerment boundaries within which a program manager can make day-to-day decisions without executive management intervention. To illustrate its use by an Intel program manager, let’s assume a product feature change request is received from a key customer. Upon evaluation of the impact of the change by the program change control board, it is determined that the “Initial power-on” threshold date of November 1, 2004 is in jeopardy. The program has now moved outside the strike zone for this critical success factor and status is changed to “RED”. The program manager is no longer empowered to make the decision to include the feature change and must escalate the issue to executive management. Intel management will intervene in the program to decide if the power on date should be extended to accommodate the requested change, refuse the request, or take other actions to attempt to preserve the November 1, 2004 date.

**Conclusion**

The Program Strike Zone is very effective in keeping a program aligned to business objectives throughout the product development life cycle. It bridges the chasm that can exist between strategic planning efforts and program planning and execution output within an organization. If implemented properly, the Program Strike Zone will help to keep management and the program team focused on issues critical to the success of the program. It fosters a “no surprises to management” behavior by increasing the flow and

relevance of information between the program team and executive management. This results in an efficient means of elevating critical issues and barriers to success for rapid decision-making and resolution. All of which culminates in a product meeting the strategic intent of the business and improved performance in the marketplace.

*References*<sup>1</sup> [PM World Today, Volume V Issue 7, September-October 2003](#) \_

**Author Biographies:**



Russ Martinelli, Manager of Program Management Methods at Intel, has nearly 20 years of System Engineering, General Management, and Project and Program Management experience in technology and aerospace. He is the chairman of Intel's Program Management Community of Practice, and an Adjunct Professor and Area Chair for Business Systems at the University of Phoenix.



Jim Waddell, Senior Manager, Strategic Initiatives at Tektronix, has held a wide spectrum of managerial and operational roles ranging from engineering, marketing, systems and manufacturing in the high tech, energy and construction industries. In his prior role as Director of Program Management for the Communications and Video Business Unit, Jim established and led the first worldwide Program Management Office for Tektronix, Inc.