



REAL ENTERPRISE OPTIMIZATION
SIMULTANEOUS & UNIVERSAL
EDGES MAPPING, PRACTICES MAPPING,
VALUE MAPPING, INFORMATION MAPPING,
APPLIED KNOWLEDGE MAPPING
and PERFORMANCE MAPPING
using the ITOP[®] Technique.

J. Thoreson , Operations Researcher - ITOP Inventor

Author of:

The Information Advantage, Ahead of Time and co-author of *Information Secrets*

Dr. John Blankenship, Mathematical Methods Analyst

Co-author of *Information Secrets*

Independent Researcher

Senior Scientist, Business Systems Consultant

Electronic Data Systems Corporation

February 2000 © Copyright 1999 - All Rights Reserved

ITOP[®] is a Thoreson registered Trademark

Abstract:

ITOP is short for "Information (Info Edges) Technique for Optimum Performance."

This short paper shows highlights of the comprehensive performance diagrams produced by the automated ITOP methodology. Little or no background, exposure or previous experience is assumed or required.

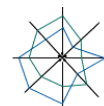
Acknowledgements:

Sincere thanks are due to the many people and clients that participated in the development of the methodology. Each knows who they are.

Publisher Reference

<http://valuinfo.vwh.net/jtpub.html>



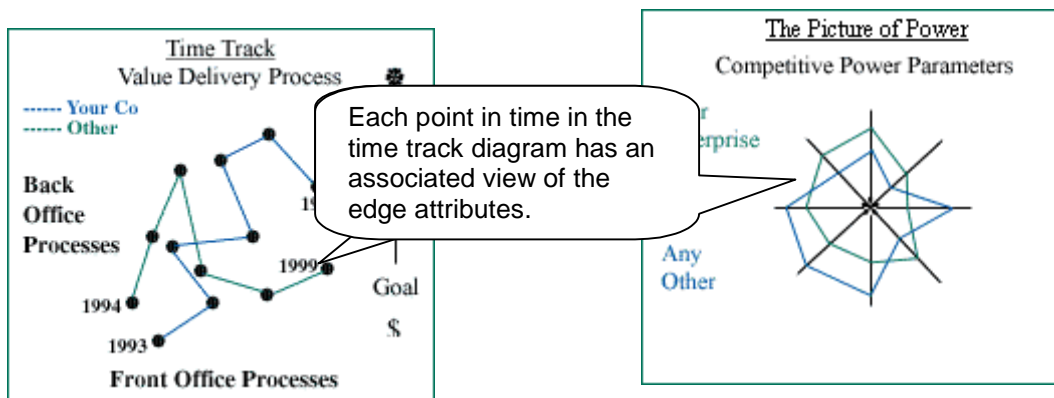


I Introduction to Enterprise Value Maps using the ITOP Methodology

The ITOP technique provides comprehensive and complete performance and value views of business corporation strengths and weaknesses. By other names these are "best business practices" and/or "competitive edges."

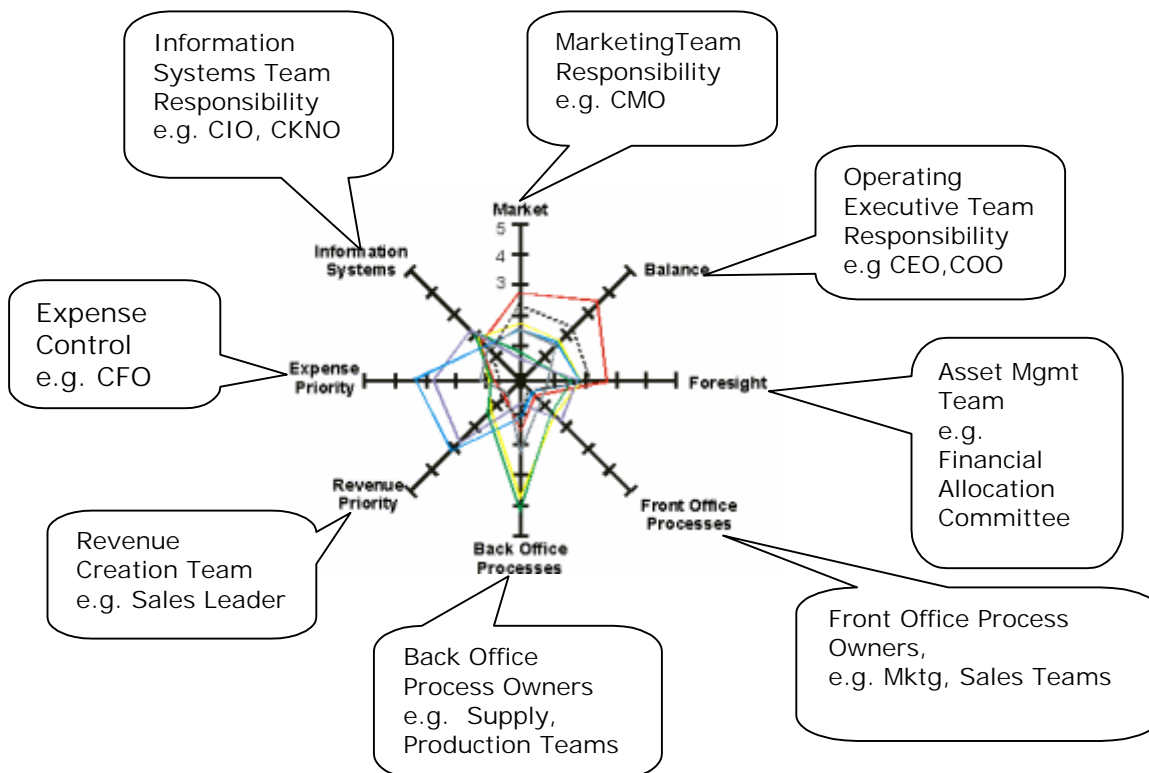
I.1 Interpreting The Value Map Diagrams

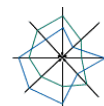
As shown in the diagrams below, a corporation carries along with it a set of edges that it uses to compete in its chosen marketplace.



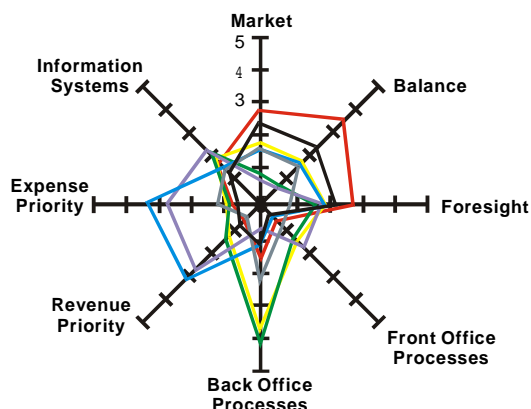
I.2 Explanation of Selected Rays in the Sun-ray Views

The practices and edges provide a map that relate to organizational functions and responsibilities as shown in the following real case example of measured, scaled, corporations in the petroleum refining industry.





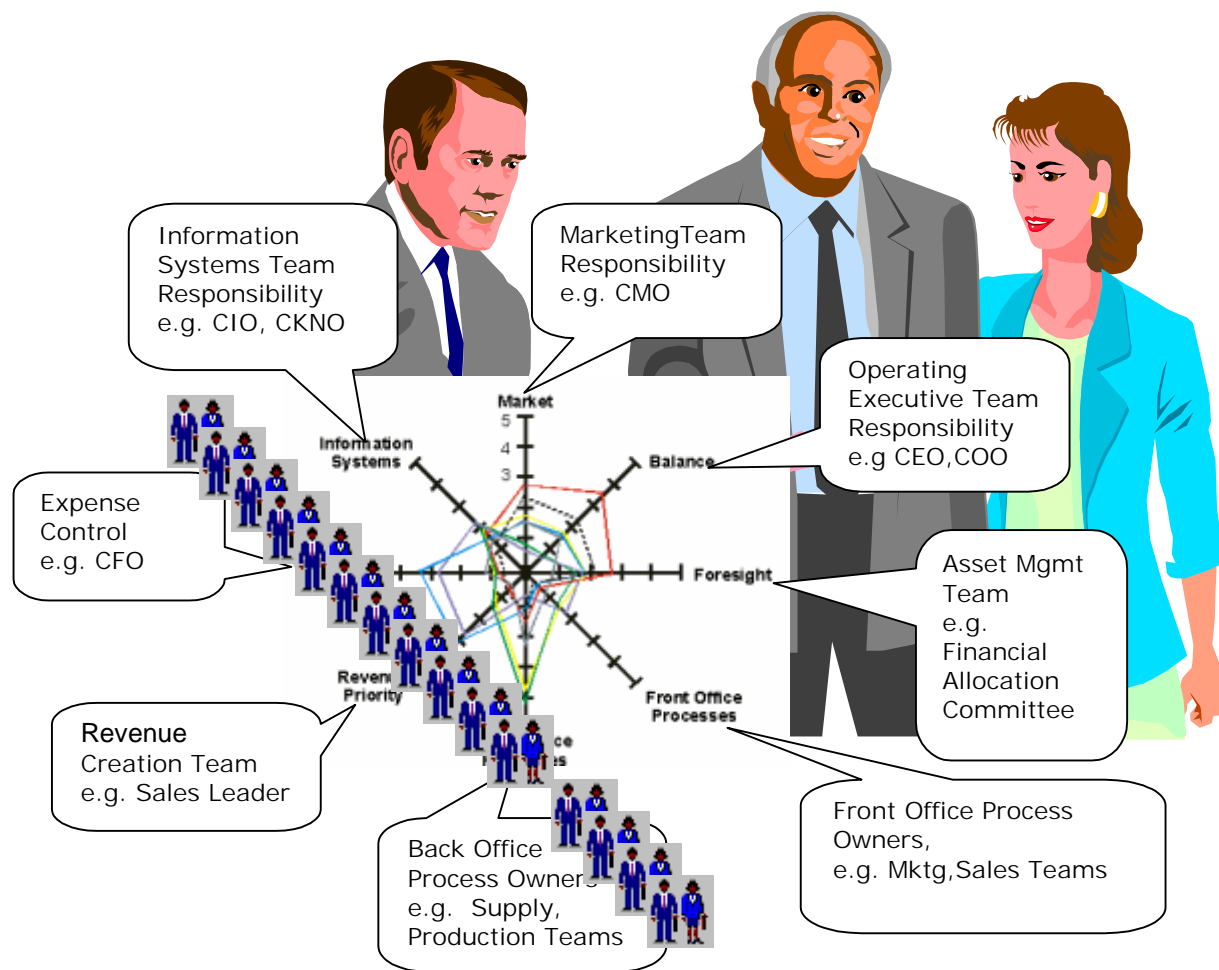
II Responsibility Profiling of Value Creation

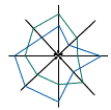


II.1 Business is People to People

Notice that if one knows the identity of the companies in the diagram (shown later), the high performance teams are illuminated as well. Such a thing is important for many reasons including recognition. Since these are also value maps, the source of value creation is identified.

The actual monetary amount of economic contribution to each corporation represented in the analysis is determined, but is beyond the scope of this paper to describe.

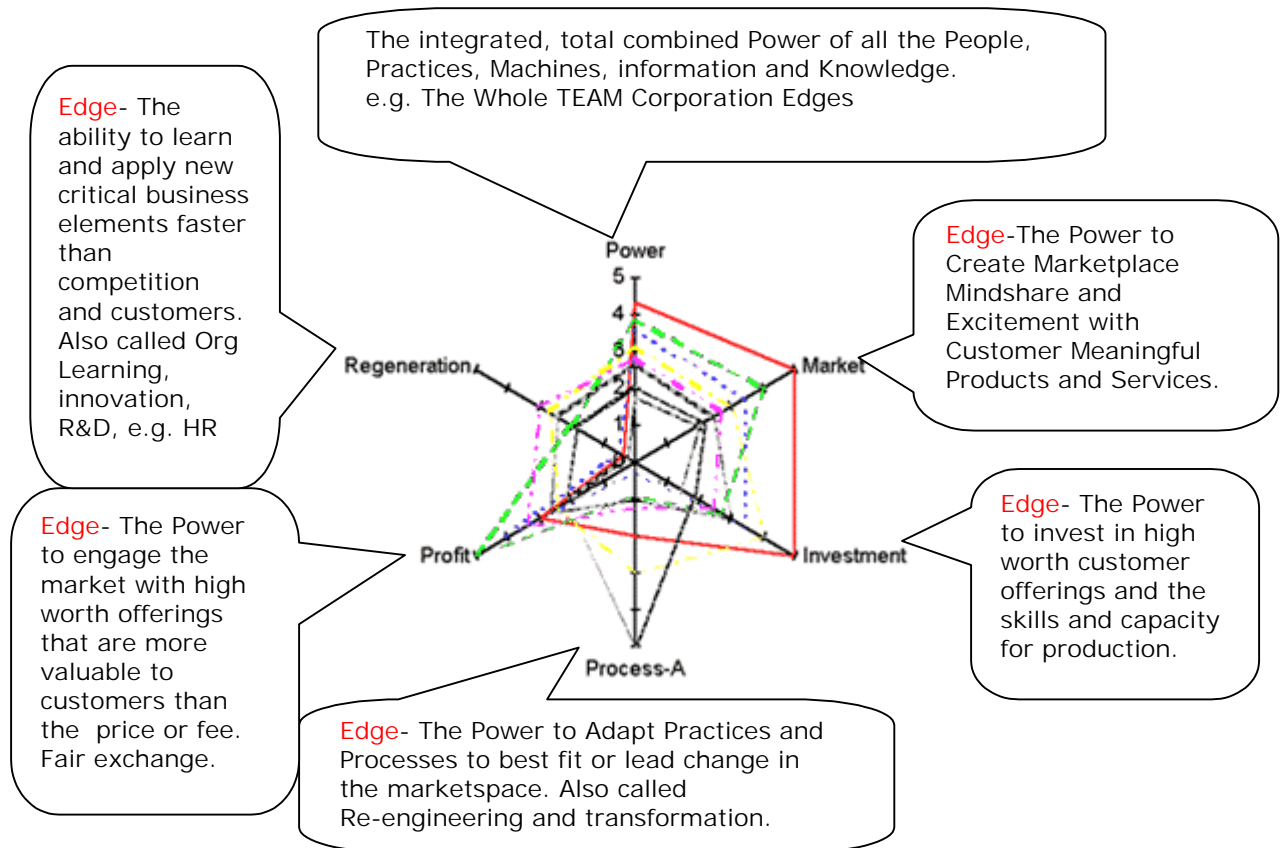




III Different Views - This one Higher

III.1 Value Accumulates Upward

The value of the respective corporations can be accumulated to higher or is able to be more refined (as shown earlier). This particular view is the most elevated view recommended because to collapse the view beyond this point will result in loss of completeness. The interpretation for this viewpoint is described in the illustration below. Several more teams are exposed including the "re-engineering" team, Human Resources (organizational learning) and so on. Refer to other of the publications and papers.



Notice that these are economic, monetary **value views**. Some of the topics have been extremely difficult to measure in the past. ITOP eliminates those previous **blind spots**.

IV Comparisons - The Making of the Common View

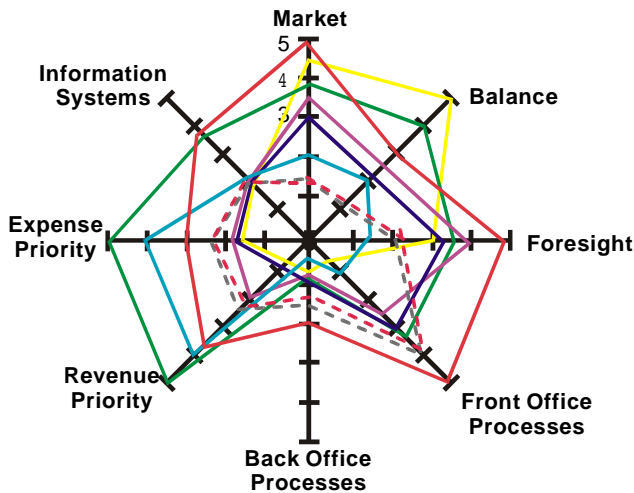
Performance comparisons and value delivery comparisons become very meaningful when the full set of corporation practices and edges are exposed. What one discovers is that each corporation is unique in the size and composition of best practices and competitive edges. Excellence in efficient operations is rewarded, as is excellence in effectiveness. Time wise excellence (faster to market, innovation) is another large advantage. Few can achieve the combination of time-wise efficient effectiveness. When an if such a condition happens, watch out. This means the



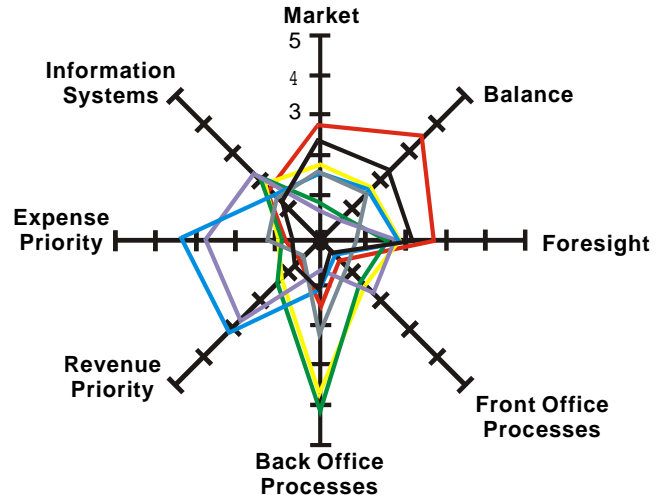


corporation has achieved the triple threat of "Faster-AND-Better-AND-Cheaper!" That is the optimum and whomever that company is, is likely to become dominant.

Actual Maps¹ from Real Industrial Corporations



Lyondell Petrochemical
 EI DuPont DeMours
 Mapco Inc
 Amoco Corp (Amoco)
 Holly Corp
 Shell Oil
 Diamond Shamrock Inc
 Tosco

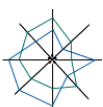


Chevron Corp
 PDV America Inc
 Coastal Corp
 Valero Energy Corp (Valero)
 Ashland Oil Inc
 Amerada Hess Corp
 Phillips Petroleum Co
 Murphy Oil Corp

Any or every corporation on earth can now be value mapped and all corporate value creation points are illuminated. The technique is independent of culture or language so that consistent, global assessment systems are now possible for the first time. The capability to see the value creating edges of all significant others (ahead of time) generates the **largest advantage possible** in business.

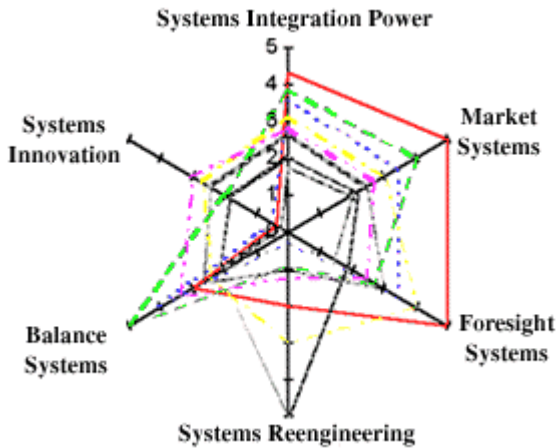
Management Science and Operations Research axioms back the claim of "largest advantage possible." References at the conclusion of this paper demonstrate and prove adherence to optimal path policy. No other technique other than ITOP is capable of supporting the theory in practice. All others fail due to lack of power to span industries and countries or in practicality of operation.

¹ **Note: The diagrams in this paper are purposely not current. These are 1995/1996 edge diagrams.**
 For use as instruction and illustration only. Do not use for action or decisions regarding these corporations. Things have changed since these were effective.





V Variations



An important but peculiar ambiguity occurs that is noteworthy. The entire set of diagrams can be recreated using the terminology of "systems."

The top view (only) will be described in the context of systems.

It is important to note that the systems views are not in any way extensions of that shown previously. The systems views are equally precise and there is no difference in completeness.

Rather, the systems view, the practice view, the process view and the edges viewpoints are directly analogous to the temperature scales of centigrade and Fahrenheit or the scales of meters and yards. The same space is (being) described. It is a matter of preference.

The **integrated**, total combined Power of all the Man-kind and Machine-kind systems. e.g. The Whole People Team and The machines they choose to bring and use. Included are information systems, knowledge systems, transportation systems, construction systems, systems of business conduct, systems of production, systems, problem solving systems, political systems, wellness systems, and so on. From all the universe of systems, choices are actually made and put into use. Some do it best.

Learning system for inventing new and different systems and components.
The Sustaining Edge

The system to align and balance all the various systems necessary to sustain & grow the enterprise.
An Edge

The system to implement alterations in any/all systems due to previous choice errors or new improvements.
An Edge

The systems in use for addressing the market and choosing what to provide that is worthy.
An Edge

The look-ahead system to see sufficiently far ahead to choose investments that foster vitality and viability.
An Edge





VI Spheres of Influence

Every sound management doctrine includes the locating, rewarding and nourishing the high performance groups. Sometimes it is called "key personnel" detection. Sometimes it is implemented with incentives. Slogans abound such as "Reward the performers while the sweat is still on their brow." **Run the company so that most valuable people love it!** Whose fault is success?!

Two thousand years ago Sun Tzu stated this "best" practice:

*"There are people that are most able. These are as brave as tigers and strong enough to bear heavy burden yet swift as wild horses. **These types should be identified, selected, marked, cherished, and honored, for they are the life of the enterprise.** Such people are skilled not in one but five methods, talented, strong, nimble and ambitious to swallow the enemy (achieve results). You must increase their honors: they win decisive victories. Treat their parents, wives and children liberally. Stimulate such people with rewards and awe them with punishments, for they can endure in battle."*

It is a tragedy that few enterprises have a rigorous systematic proper method of identifying the high worth performers in their own organization and as importantly, the value profiles of outside companies of significance (prospects, competitors, etc.). Notice that the method described here addresses any organization on earth. Effective strategic selling, recruiting and strength building can be simply implemented. Suffice to say that if an organization is unwilling to properly reward the true performers, there is another that will do so. One of the most rapid methods of organizational decay is the loss of high worth performers and/or the false rewarding of the wrong performers.

The notion here is one of **increasing the sphere of influence** of the **true value adders**. The "new" media forms such as computer and communications "systems" technologies are a way of increasing the performers' sphere. Involve them first in spite of their being the busiest. If technology is designed and deployed by the bureaucrats and technocrats, the result will be more nonsense than targeted results. Popularity polling, beauty contests and democratic "voting" does not work well when excellence is in the minority. A different unbiased and trusted method must be employed.

VII Concluding Comments

If any of this should be confusing - do not despair. What is simply shown here is uncommon and very tedious to accomplish. Simultaneously, the intersecting aspects of performance, value, knowledge, information, and systems have been overlaid one on the other, to the same scale, on the same diagram, for any type organization, group or team.

An important universal guideline can be used to start.

It's Simple!

All one really needs to do is:

1. **Find out** what we do that is **really valuable**.
 - 1a. **Locate** those with the HIGHEST value **next** need for what we do.
2. **Find out** what is **NOT** valuable.
3. Do, Deliver a lot of #1 & #3 (**maximize**) and little of #2 (**minimize**).

Courtesy *The Information Advantage*, pg. 196
Attributed to Mr. J. Heller, Director - Mutual of Omaha





Proper implementation of the design creates an amazing capability to accomplish all that is shown above for any type of business in any country or culture in the world. Moreover, the technique **actually prohibits** visitation, interaction or consulting of any kind. Any interaction would open the method to the bias experienced by the famous Western Electric Hawthorne study early in the 1900's. Thus, the ITOP technique inherits the attribute of stealth. It is accomplished remotely via e-commerce without the target corporations participating or even knowing. The system is tough but generates trusted, unbiased and extremely practical results. The consequences are powerful. A whole new class of economics emerges.

The petroleum-refining example sketched in this paper is one of **several hundred thousand** companies around the globe successfully evaluated using ITOP in the most recent client system development.

The "Look-Ahead" feature is most unusual and deserves comment. Suddenly, the systems investment portfolio and improvement tactics are clarified. The largest gain available to the enterprise will be located at the largest gap point. It is as simple as that. **The next (future) largest goal gain for action illuminates. It does so Ahead of Time!** The future uncertainty is reduced and so is the risk. When one can be confident of seeing the true next goal gain to be addressed, it is an axiom that the optimum path to the goal is being followed.

This prospective ability to see ahead is not mystical or magic and not clairvoyance. Nor is it forecasting! It is merely applied logic. When one properly measures and scales the actual information content/applied intelligence of an object with respect to goal, any variation is always caused by uncertainty, which by another name is missing information. The "system" most needed or needing improvement most is identified.



"Now an army may be likened to water, for just as flowing water avoids the heights and hastens to the lowlands, so an army **avoids** strength and **strikes** weakness."

Sun Tzu - "The Art of War"

Visit these web sites of our friends and implementers for more information and details.

<http://www.edges.net/>

<http://www.e-edges.com/>

<http://www.global-edges.com/>

<http://www.eva-edges.com/>

<http://www.ecom-edges.com/>

<http://www.cyberedges.com/>

References describing the ITOP system follow.





References:

1. J. Thoreson "Ahead of Time", 1999 and "The Information Advantage" , 1996
2. Robert S. Kaplan and David P. Norton, "The Balanced Scorecard - Measures that Drive Performance" Harvard Business Review (Reprint 92105), 1992
3. J. Thoreson and J. Blankenship "Information Secrets" 1997
4. Howard J. Snavely, "Accounting Information Criteria", The Accounting Review, April 1967
5. John von Neumann and Oskar Morgenstern, Theory of Games and Economic Behavior, Princeton: Princeton University Press, 1944
6. Ray Stata "Organizational Learning - The Key to Management Innovation", Sloan Management Review, MIT, vol. 30, no. 3, Spring 1989
7. Samuel B. Griffith, Sun Tzu - The Art of War, Oxford University Press, 1971
8. W. Gibbs "Software's Chronic Crisis", Scientific American, September 1994
9. Peter M. Senge, The Fifth Discipline, DoubleDay, 1990
10. D. Powell, " The Productivity Paradox", Computing Canada, Vol. 18, Iss. 24, November 23, 1992
11. P. Drucker, Post-Capitalist Society, Harper Business Press, 1994
12. R. Bellman, Applied Dynamic Programming, Princeton University Press, 1962

Special ITOP related papers available on the world wide web.

13. J. Thoreson "Value Tao Grande" <http://www.edges.net>
14. Valuable Information Ltd - website <http://valuinfo.vvh.net/jtpub.html>
15. J. Thoreson "The Super-ordinate Optimization Technique" <http://www.cyber-edges.com>
16. M. Oliver, L. Johnson, J. Thoreson "Commerce, E-Commerce and Systems Integration Made Simple" <http://www.edges.net/LJMO-Systems-Integration-Value.pdf>
17. J. Blankenship and J. Thoreson "Business Intelligence Maps and Enterprise Optimization" <http://www.edges.net/ITOP-Value-Maps-People.pdf>
18. B. Patterson and J. Thoreson "Killer Business Scorecards" <http://www.edges.net/Killer-Scorecards.pdf>
19. J. Hartnett and J. Thoreson "Simply Optimum Systems - A Marketing Dream" <http://www.edges.net/JTJH-Kiss-SOS.pdf>
20. W. Clements and J. Thoreson "Measuring Corporate Intellectual Capital: An Economic Approach" <http://www.edges.net/Intellectual-Capital-measure.pdf>
21. J. LaTronico and J. Thoreson " Obstacles Removed" <http://www.edges.net/JLaTJTobstacles.pdf>
22. E. Mendelson and J. Thoreson " Supply Chain Rocks" <http://www.edges.net/Supply-Chain-Rocks.pdf>
23. J. Thoreson, American Management Association paper, "IT's All About Winning" 1999 <http://www.edges.net/Short-4book-talk-paper.pdf>
24. J. Ross and J. Thoreson "Prejudice and Bias Technology: An Information Technology Perspective" <http://www.edges.net/On-Prejudice.pdf>
25. R. Henry, E. Vogel and J. Thoreson "Measuring Business Edges and Invisible Powers" <http://www.edges.net/Invisible-powers.pdf>
26. J. Thoreson "The Perfect Performance Scale: Search for the Perfect Commodity" <http://www.edges.net/Perfect-Optimal-Commodity.pdf>
27. J. Thoreson "Love; Hate; Life; Dissipative Systems and Business" <http://www.edges.net/Dissipative-structures.pdf>

