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FreeCell[1] and Risk Identification

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'FreeCell' is a wonderful game of computer solitaire that comes with the Microsoft Windows operating environment. The goal of the game is to move all of the cards off of the tableau, sorting them by suit into increasing order. The game also has four temporary locations in which a card may be placed.

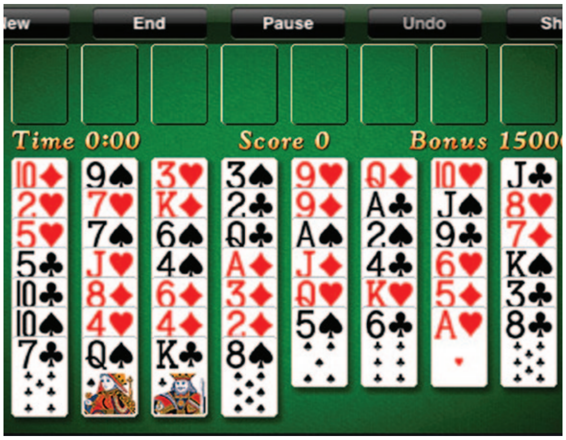
Even though this game is not as complex as risk identification it does point out several major strategies required.

Obviously, the first requirement in this game is to know the rules. Your knowledge of what the goal is, how to reach it, what your resource limitations are, and how the separate positions on the tableau interact. Regarding risk identification:

- Understanding a risk requires you to remain up to date with your peers, reading, and thinking. Obtaining and/or creating lists of various risks can be very helpful. A couple of excellent older lists are in the articles "Managing Financial Instruments in a Life Company Portfolio" by Paul Kennedy and if I may toot my own horn, my "Risk in Investment Accumulation Products of Financial Institutions." Other excellent resources are Max Rudolph's reoccurring emerging risks survey. Another excellent resource is Google Alerts, which will continually conduct searches against the entire Internet for specific areas of interest.
- You must also know your resource limitations to be able to measure and ameliorate the risk. You don't want to do too much too quickly, and you also should make sure that you have sufficient staff to conduct both the data collection and the key analyses.
- Of course, the most difficult component is to understand the interactions of separate players. If you just spend time creating a list of the players associated with the risk will go a long way to the basic understanding of the environment. Next, you need to know how the players interact. You should think about how greed, ignorance, laziness, fear, and limitations of each player can influence the risk. Your understanding of this psychological network will also allow you to identify new aspects of the risk that you may have not considered. Besides creating this network, another good tool is to use data mining to quantify both the herd and the individual mentality of the players. In the examination of eight years of daily variable annuity transactions against the performance of the stock market, I discovered that the majority of the contract holders moved their money at the most inopportune time (for them), which revealed how much they were motivated by fear. Regarding individual behavior, in another study, we observed that a 457 plan's fund transfer limits were exceeded in one specific state. Upon further examination, a specific county exceeded the limit and it was finally determined that it was due to the behavior of two contract holders. The contract holders wanted to continue to obtain interest on their monies over the weekend, so they transferred all their monies into fixed funds on Friday and back to variable funds on Monday. Another useful data mining result was the determination of brokers from Hell. When we observed dramatic lapse increases within the Broker/Dealer variable annuity business, data mining was used to determine a small group of brokers that were churning the business. Also, I have personally seen the effectiveness of data mining in the discovery of fraud by insurance agents.

When playing the game, you must resist the temptation of only picking the low hanging fruit. You will discover that the continual use of this strategy, will lead to frequent losses. Similarly in risk identification, you may discover that your upper management is interested in a quick turn around so that ERM could be no more than window dressing. As mentioned above, human nature tends to be greedy and lazy because of the desire to obtain the greatest benefit by expending the least effort. You may have observed when privately held companies go public, how

> "You must resist the temptation of only picking the low hanging fruit."



management strategy frequently moves from long range to short range. Also, new, heavily invested, initiatives may take on this same short term philosophy and should be examined closely. Recall in the late 1990s, where international monies were flowing into western economies because of the flight to quality. This was when the LTV ratio requirements were reduced, as well as, the lowering of underwriting standards. The low hanging fruit strategy, also can lead to overconfidence that minimalize deeper issues, just to maintain the status quo. For instance a large number of companies have implemented their Operational Risk programs with only COSO requirements, which has lead to massive under capitalization.

The only way to excel at 'FreeCell' is to play it frequently. By doing so, you develop excellent observational skills and strategies. In the same way, risk identification requires deep thought, observation, and frequent review. It also, doesn't hurt to be both a bit morbid and paranoid. The revision of a quote used by many mathematics teachers, best sums up risk identification—"The only way to do risk identification quickly is to do it slowly." ✦

FOOTNOTES:

1 FreeCell – Copyright 2007 Microsoft Corporation by Jim Horne
2 1993. Proceedings of the 3rd AFIR International Colloquium. pp 665–672.
3 This article is in the symposium proceedings of the same name available from The Actuarial Foundation. For more information, see http://www.actuarialfoundation.org/publications/risk_investment.shtml
4 See http://soa.org/research/risk-management/research-2009-emerging-risks-survey.aspx or contact Max at max.rudolph@rudolphfinancialconsulting.com for further information.
5 See http://www.google.com/alerts.