



"The ability to represent complex systems, and to see how that behavior changes over time, makes iThink an ideal tool for us."

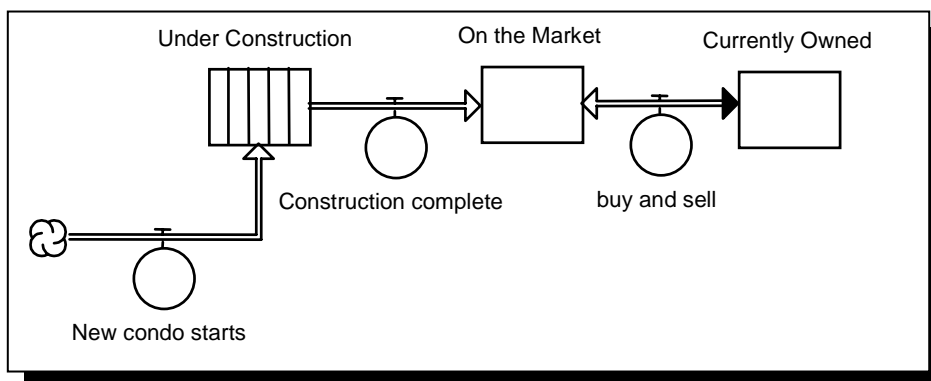
--Rud Istvan, Senior Vice President,
Boston Consulting Group

The Need for Visual Thinking

Financial analysis is done in virtually every aspect of business. Though the details differ, the basic approach is always the same. Develop a set of assumptions, input the particular accounting logic needed to generate a bottom line; then, turn the crank and what-if it to death.

The tool of choice for performing financial analyses is clearly the spreadsheet. Spreadsheets have performed admirably for years – but are not without shortcomings. The accounting logic is tedious to install. Too often, it can take hours to track down a simple bug. It's difficult to visualize your assumptions, or see a "big picture." And, in many instances, the spreadsheet framework simply can't do justice to the nature of the issues at hand.

The *iThink* software can be used to complement a spreadsheet analysis, or can stand on its own as an alternative which addresses many of the spreadsheet's shortcomings. With the *iThink* software you lay out your logic graphically, rather than typing complex formulas into cells. As a result, you can see what you're thinking, and also what you're not thinking – Which often makes you think harder about your assumptions. The *iThink* software also will effortlessly handle any processes with delays. And, when you need to include both hard and "soft" variables in order to get to the bottom line, there's not a tool that even comes close!



Case Study

The Setting: A prominent real estate developer

The Question: Should we build now?

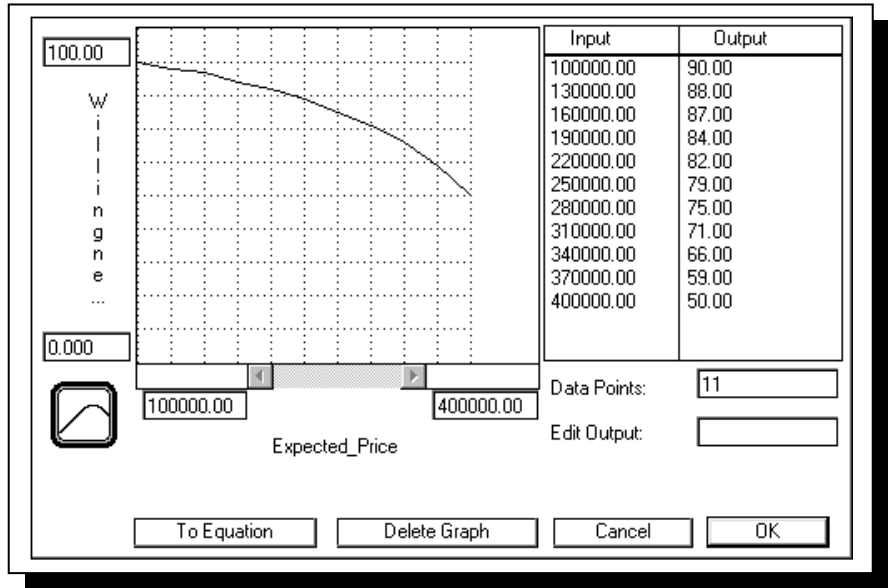
The Challenge: Blending hard and "soft" variables.

Background: A prominent real estate developer faced a tough question. The firm had an option to build a condo development at one of the world's premier ski resorts. Condo prices had skyrocketed over the last several years, but had recently begun to slip. Was this just a "blip"? Or, were prices going to continue to fall, and then stay down? Bottom line, should we build now? Using the *iThink* software, the developer had an answer within two days. And, the answer was the right one!

Step 1: Map the Current Process. The developer began the analysis by creating a map of the relationships in the system. A key piece of the map (simplified, and shown below) focused on the accumulation (or stock) of condos "on the market" at any one time. This stock determined condo prices. Prices, in turn, determined sales, and hence, the developer's profitability. The "On the Market" stock was fed by a flow from "Currently-owned" condos, and also by one from condos "Under Construction." It was critical to be able to achieve an accurate accounting of the flows and stocks of condominiums through time. The *iThink* software is ideally suited for such tasks.

Step 2: Model. Once the map of the system is laid out, the next step is to incorporate the assumptions about what makes the system work. In this case, the logic surrounding "Willingness to Buy" was a key focus. "Willingness to Buy" was assumed to depend primarily upon price considerations. But the developer felt that it wasn't price, per se, but rather expected price. And, expected price, in turn was assumed to depend on the inventories and flows of condos within the system, as well as on both the level of price itself and the rate of change of the level – not your typical spreadsheet fare! But "cake" for the *iThink* software

Step 3: Simulate. Once all of the assumptions have been sketched or clicked in, the next task is to simulate. Although simulation output from the *iThink* software can be displayed in several ways (including animation of the map), the Plot and Table options proved most effective in this case. What became clear through a series of simulations, was that a spiraling relationship was operating in the condo market. Falling prices encouraged current condo owners to put their units on the market. Then as the units hit the market, price fell even more. Compounding the effect would be units dumping out of the “Under Construction” vat. Then, as “Units on the market” swelled, Willingness to Buy (for speculative reasons) would fall. The net result of all this activity would be a protracted period of both depressed prices and price expectations. The simulation results clearly suggested that this definitely was not the time to build!



Step 4: Celebrate! There are no crystal balls out there. And the *iThink* software certainly makes no claims in this regard. However, you can think smarter about the future. In this case, by using the *iThink* software, the developer was able to get a much better handle on what was likely to happen to price and hence profitability, in the condo market at a particular resort location. And, the analysis, although quite sophisticated, took less than two days to complete. In retrospect, the developer estimates that the decision not to build saved him at least \$10 million – something most people certainly would consider worth celebrating!

