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## Scenarios as a creative practice

Scenarios are another creative practice increasingly being used by companies and gaining favor from the success of Shell Oil with their future scenarios process (see references below). We intend our system architectures to not just satisfy current requirements but also be easily evolvable over time. One way of working towards evolvability is by designing a product family. The family can be developed and produced all at one time, or to mitigate risk may be started with one product entry followed by variants of the product over time. This controlled release of new family members manages risk, can spread out resource requirements and reduces the need for a high upfront capital investment. Therefore, another ‘ideal’ design attribute is the system architecture’s ability to evolve. How do we plan for the evolution of a product? One strategy is to make the current first release version of the SA so flexible that it can be evolved quickly and at minimal cost. However, typically in order to have notions of how to design in the flexibility we must know the future. Scenarios, which derives its name from scriptwriting in plays, is one means of thinking through possible futures. Your creative team can think of many different possible futures affecting your enterprise and its products. How do you know that you have explored all possible futures? You don’t know, but large fluctuations in the “environment,” or disturbances, must be considered, not just the different normal, possible paths out into the future. This is a ‘what if’ analysis. One must consider the seemingly improbable disturbances that can, and as we have seen in 9/11 and the recent tsunami, do occur. The scenarios can be done by experts, managers, futurists, your SA team, yourself and . . . Think about how your product may be misused or used for purposes not originally intended. In this case you should consider testing it for robustness in this outside usage or ‘protecting’ the product from being misused. Once these scenarios are developed and discussed, their impact must be discounted to the present in your SA design as much as you judge is appropriate. In this viewpoint one might consider the selected present SA to be the result of all plausibly considered futures. By modularity and platforming along with other SA strategies, you can achieve flexibility and its close relative, extensibility, with minimal or modest added cost to your present SA design.

A good book by which to start being convinced of the usefulness of scenarios is  
[http://www.amazon.com/exec/obidos/tg/detail/-/1578518202/qid=1105579205/sr=1-32/ref=sr\\_1\\_32/002-5285815-5183236?v=glance&s=books](http://www.amazon.com/exec/obidos/tg/detail/-/1578518202/qid=1105579205/sr=1-32/ref=sr_1_32/002-5285815-5183236?v=glance&s=books) *The Living Company* by Arie de Geus.

Also, here are two websites to review on scenarios

[http://www.shell.com/home/content/aboutshell-en/our\\_strategy/shell\\_global\\_scenarios\\_dir\\_global\\_scenarios\\_07112006.html](http://www.shell.com/home/content/aboutshell-en/our_strategy/shell_global_scenarios_dir_global_scenarios_07112006.html). (Accessed 21 August 2007).

and <http://www.sric-bi.com/consulting/ScenarioPlan.shtml>