

Vasa Tragedy

King Gustav of Sweden, who had major victories in the Baltic wars, yearned to own the best flagship in the whole of Europe. He commissioned the construction of a new flagship for the Swedish Navy in 1625. It was meant to be the best flagship ever in the entire Europe, following the major victories of Sweden in the Baltic wars.



King Gustav

Hendrick Hybertzoon, a master ship-builder from Holland, was inducted to carry out this prestigious project. A brief meeting was held with King Gustav to discuss the matter – the so-called “requirements” for the flagship. Hybertzoon soon built within a short time a scale model of the proposed flagship. King Gustav was captivated by what he saw in the “prototype” and Hybertzoon was urged to proceed with the construction of the flagship in all its glory. An oak forest of modest proportions was given to the master ship-builder to obtain timber.

There were no written specifications from the king nor his advisors. Not even the admiral of the navy made written specifications on what and how the flagship ought to be. Hybertzoon ordered lumber cut from the oak forest under the assumption that the flagship would be approximately 108 feet long. The construction, then proceeded until the King inspected the progress for the first time. He felt that the flagship which was to be the pride of the Swedish Navy ought to be larger by 135 feet. Hybertzoon had already cut lumber and had made the keel. He now patched the keel by adding extra length of wood and finished with the ship length of 120 feet!

While the construction was in progress, King Gustav went on a Summer Vacation and was informed that the King of Denmark had also commissioned building of a flagship. This ship was to have three gun decks compared to two in the Swedish one. King Gustav with his royal ego piqued demanded that a third gun deck with 50 brass canons (each weighing over a ton) be added to his flagship. What’s more, his Royal Highness demanded that the ship be completed several months ahead of schedule. Money was no object!

Hybertzeoon was flabbergasted. He could not understand how the king could make such an outrageous demand for major structural changes. Doesn’t the king know that no major structural changes can be made to the ship after the keel has been laid and planking done? But one doesn’t argue with kings and Hybertzoon agreed to work on the outrageous demands. Within a few months, Hybertzoon died after a serious illness, perhaps arising from the tension of attempting on uphill task. Thereafter, Arent Hybertzoon de Groote, his brother took over the job inspite of his relative inexperience.

Analytical methods were not prevalent in 1625 when this ship was being built. Instead ship builders would just make educated guesses, build and learn (from mistakes). Also, specification of ships would be held a closely guarded secret and wouldn’t be subject to open reviews. In the case of the Swedish flagship, the calculations did not take into account the weight of weapons (about 50 tons extra). And there were other items like a cooking oven that were to add to the weight. To cater to these, the shipbuilder felt that some additional planking on the sides and additional ballast of 130 tons. Planking was done. But there was no space under the deck for another 130 tons of rock to provide ballast and was ignored. Somehow the ship was finally “constructed”.



Time was running out as was the King's patience. The Swedish Navy "tested" the ship by letting 30 sailors run from end to end. On an occasion the ship almost fell on its side. Since the King was impatient and no one knew how to solve the stability problem, the ship was declared "tested" and good. The ship was named Vasa. In August 1628, the Vasa was launched from Stockholm harbor. Just about a few kilometers, a small gust of wind caught the mainsail; the ship overturned and sank immediately. Nice story, but what has it to do with software? Maybe nothing, but many lessons to learn.