Square Peg, Round Hole - Adapting survey acceptance tools and techniques to keep up with a rapidly evolving software market

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The only constant in life is change, and the hydrospatial industry, specifically the nautical charting sector, is not immune to this. Looking at multibeam echosounders, for example, there is a wide range of sensors to choose from depending on your needs: precision, accuracy, resolution, size, power consumption, and of course, price. The same is now true in the software industry, where there are a growing number of software solutions available on the market.

Another such change is the new norm of Hydrographic Organizations (HOs) receiving data from external sources, including survey service providers, and now more recently crowd sourced bathymetry. The HO is accountable to the end user of their charting products, the mariner, thus they must satisfy themselves that data submissions are fit for purpose. HOs typically have well documented procedures that allow them to build confidence in the quality of their own data and have adapted to accept data from external suppliers. This is straightforward when all involved use the same processing and/or visualization software, since the data exchange is very direct and the QA tools and methods used by the HO are the same as those used by the provider. This becomes more challenging, however, when the provider and recipient use different software. The procedures that have been built up over many years within the HO are typically heavily geared towards the software in which they do their own work. The challenge for HOs that chose to take delivery of data from other software is how to adapt their procedures to assess the quality of the submission.

In this paper, we present a few case studies from different Hydrographic Organizations (HOs) spanning the globe. For each, we discuss the different approaches taken as well as the challenges and solutions that have been found.