

By Henk Hinssen, iHandl Engineering



Let me introduce myself: I am Henk Hinssen, instrumentation engineering associate, working for the process industry almost 40 years, of which 20 years for a major petrochemical company with HQ in Texas. I have been involved with Valve World since 2005 and have been moderating Valve World workshops since then in Europe, Asia and Americas. I modered 2 workshops last June at the George **Brown Convention Center: one on** "Fit For Purpose Valves" and one on "Effective Valve Engineering Tools". Those workshops turned out well, well beyond my expectations. The reactions were positive, some critical. Exactly what I was looking for, and stimulating enough as potential feed for a monthly column.

"A new CAT on the NPQC scene!"

I am ready to introduce a new CAT on the NPQC scene, with focus on control valves! If you don't know what I am talking about? Then please read on and let me explain.

I retired 7 years ago, but when I started 40 years ago, almost from day 1, I got involved in NPQC, non process quality control. My company introduced the term NPQC half a century ago, triggered by a couple of projects being completed way over budget, way too late and not to our requirements. From that moment on, each project would get an NPQC budget to ensure projects would be completed ontime, within budget and to our specifications. Like an insurance premium to cover for unwanted situations. As an NPQC engineer one would regularly visit the EPC offices to ensure the contractor and the company project team worked along the lines described in the NPQC plan. Company knowledge was distilled into a comprehensive and powerful NPQC plan covering all equipment disciplines, including instrumentation. We had a specific instrumentation NPQC plan and properly sizing & selecting control valves was part of such instrumentation NPQC plans.

So for years I worked as a company project engineer at EPC offices and got the assistance of instrumentation NPQC engineers, typically experienced engineers in specific domains. Later in my career I became an instrumentation NPQC engineer myself and got involved in NPQC visits. Those were the days of peeking over huge paper volumes of instrument indexes, datasheets, vendor drawings, loops and company practices trying to spot flaws in the designs, not an easy and "enjoyable" task to say the least. It's like trying to find a needle in a haystack. Those were the days when I bought my first portable computer, vintage 1982 to be exact. Those days triggered my quest for better tools, tools to spot design flaws, tools to query large amount of data, tools to spot data quality issues, i.e. proper tools for NPQC engineers.

And today I am ready to introduce a new CAT on the NPQC scene. CAT stands for CONVAL adapter tool. CONVAL is a comprehensive instrumentation and process design engineering tool, well established in the market, strong in analysis, well fit for valve sizing and selection and it was rolled out within my company more than a decade ago. Loaded with this company wisdom I retired and knocked on the door of the CONVAL developers, asking them to listen to my quest for better tools for instrumentation NPQC engineers?

Well, they listened. For the last couple of years I whispered in their ears what was

needed for instrument NPQC engineers when they visit EPC offices to spot flaws in instrument designs, specifically during the valve sizing & selection process, both in FEED and DE (detailed engineering). Now are the days where most EPC are using instrument design and documentation tools like SPI to build their instrument index, their specs, their loops and sometimes their calculations. Now are the days to link powerful analysis tools like CONVAL to SPI.

I am glad to see that companies start piloting the CAT tool. It adapts directly to SPI type tools, actually to any spreadsheet or database based datasets. It immediately visualizes the data quality issues within the instrument index and specification datasets. It surfaces the design flaws, such as potential reliability issues within a complete dataset of control valves. It works great in batch mode.

For me the tool I was looking for so long. For me the perfect tool for the instrumentation NPQC engineer! Hallelujah! Time for me to convince the Valve World Steering Committee to give us the floor at Valve World Americas 2015 to demonstrate its capability. Time for end-users, suppliers and EPC contractors to convince themselves that it is more than time to bring this CAT to their NPQC scene.



