

Water Modelling Trends! Automating model maintenance and calibration practice! Webinar Q & A

Q: Once we have built, data validated and calibrated model, we would be very reluctant to just re-extract the whole model from scratch again and re-introduce all errors and bugs that may still be present in the source data. Can we have 'delta' updates from the source, just what was new or changed since the last time we went through initial effort to build, validate, calibrate a model? That way any errors/bugs would be limited just to the most recent update, and easier to resolve.

A: Yes, the 'data integration hub' referred to in the presentation includes the ability to process delta upgrades to refresh models. See use case example for Anglian Water particularly the "model builder" component of the project - <https://www.innovyze.com/media/4050/luca-serena-innovyze-anglian-water-the-journey-to-integrating-hydraulic-models-to-their-data-sources.pdf>

Q: If our WS Pro Model is not connected to SCADA or any live data information. How can automatic model updates using Ruby script be verified?

A: Connecting to SCADA or any live data information would be ideal to verify model updates. However, historical data sourced offline (e.g. flat files, csv) can also be utilised.

Q: In calibration process, how does the model deal with the problem of finding a few unknown pipe diameters, as distribution systems might've been formed and completed during many long years of service?

A: InfoWorks WS Pro can automatically infer missing data values (e.g. pipe diameters, node elevations, etc.) from existing data, allowing to fill in gaps in your data with reasonable values.

Q: The model build/update was very simplified for the webinar. I would be interested to understand more about the scripts and how they update/overwrite the existing asset data and import new asset data (i.e. new areas) at the click of a button. Or is it fully re-importing the assets? It seems there may be some base assumptions there in the quality of the data sets which are being imported.

A: Yes, the example in the webinar was simplified to introduce scripting and demonstrate the functionality. The scripts can be designed to update/overwrite the existing asset data using delta changes and/or import new asset data. See use case example for Anglian Water on their model integration project <https://www.innovyze.com/media/4050/luca-serena-innovyze-anglian-water-the-journey-to-integrating-hydraulic-models-to-their-data-sources.pdf>

Q: Can you provide more tutorials on water distribution modelling, like model calibration, model updates etc. currently only available very limited tutorials?

A: Please request to our support team via our support portal - <https://innovyze.force.com/support/s/login/> or contact us directly via <https://www.innovyze.com/en-us/contact> to receive further technical assistance. Also check out our Learning Series here <https://www.innovyze.com/en-us/campaigns/a-learning-series-infoworks-ws-pro>

Q: For automated model calibration, IWLIVE uses available live SCADA. If our water network only has zone SCADA at pump stations (i.e. no DMA's created) and the zones are large and open pipe networks with multiple pump stations feeding directly to distribution, what additional remote telemetry would we need to employ for IWLIVE calibration to be meaningful? Would we need to consider creating smaller zones, or DMA's, to get meaningful calibration and analysis?

A: Yes, dividing the system into smaller zones/DMA's will allow for more targeted calibration and analysis. Particularly with demand calibration wherein the tools available offline (WS Pro) and online (IWLIVE Pro) are built around DMA management.

Q: We are using InfoWater software. Is there any possibility of undertaking some integration that you explained using the InfoWater software?

A: Yes, it's possible using GIS scripting and connecting InfoWater to Info360.

Q: In calibration process, how does the model deal with a few unknown pipe diameters, as distribution systems might've been formed and completed during long years of service?

A: InfoWorks WS Pro can automatically infer missing data values (e.g. pipe diameters, node elevations, etc.) from existing data, allowing to fill in gaps in your data with reasonable values.

Q: Any progress on automating the generating of a system curve in WS Pro?

A: This feedback has been received by our team and is currently under review and consideration.