Hands-on model running with automation - Webinar Q&A 20th August 2025

Question Details

#	Question	Answer	Answer Name
1	Is DNV used?	Jaap no doubt knows, but I might have to plead ignorance. What is DNV? JV: I'm sorry to say it does not ring a bell, and I can't tell what the context is of the question - perhaps it's just a misspelling on a single letter, but it's hard to say. If whoever asked the question reaches out to support@tuflow.com, I'm sure we could provide an answer.	Phillip Ryan, Jaap van der Velde
2	The CLI tooling is usually better on POSIX systems such as MacOS, Linux or even WSL. Does tuflow work on those systems or are there any plans to make tuflow available on MacOS and Linux?	TUFLOW FV works on both Windows and Linux. JV: There are packages available as either .rpm or .deb. There is development currently underway to release TUFLOW Classic/HPC on Linux as well, but we cannot say with certainty what the first release will be that will be fully supported on Linux. Keep an eye on TUFLOW news though, because we're getting close. There are no plans currently to also build specifically for MacOS. But on a Mac, running TUFLOW in Docker should be a lot easier than getting the Windows version to work without issues, once a Linux build is available.	Phillip Ryan, Jaap van der Velde
3	Many users of tools I write aren't comfortable editing YAML or Python configs, so I often end up building GUIs. These help, but they add development and maintenance overhead. Do you have any tips for enabling non-programmers to adjust configs and run scripts independently?	I hear you Henry. I'll ask Jaap to give his comment as well, but my take is: - It would immensely helpful if you can get non-Python-coder on board explaining the power of automation. - you can make the input easier for non-coder, by limitting the number of inputs or by using text/csv file as input - you can also configure consistent python environment on your colluege's PCs, so that it becomes easier for everyone to kick off any scripts JV: Writing a YAML configuration seems very close in technical complexity to writing a TUFLOW configuration file. I think it's often a matter of users not understanding what the values they need to enter represent, rather than the format itself being the problem. Instead of a GUI, you could consider writing a simple parser that provides a user with better information on what may be missing in their configuration file, helping them write a better one, beyond just an error message.	Shuang Gao, Jaap van der Velde
4	Thank you for the presentation. I've heard that AI is already being applied in model calibration, and I'm curious about the extent of automation it provides. Is it primarily focused on generating multiple scenarios, or does it go further than that?	It can go a bit further than that. You can read the results generated by the model, and use some algorithm to decide the model parameters used in the next simulation rather than running all snenario combinations. There have been more and more studies on "machine-assisted" model parameter calibration in the past few years. PEST is a great example. We've attempted to use Genetic Algorithm, which was presented by a keynote speaker in last year's HWRS conference. PEST: https://pesthomepage.org/ Genetic Alorithm: https://en.wikipedia.org/wiki/Genetic_algorithm and there must be more!	Shuang Gao
5	As some one with non coding background is ChatGPT - 5 a good AI for creating codes or there are some better AI models for better results ?	In the presentation, I was using ChatGPT, and the command line tool I demonstrated was using OpenAI's GPT API as well. However, in VS Code I use GitHub Copilot, and for programming chat in general, I prefer Claude. In all cases I have found that the paid tiers of any model performs better than the free tiers of the rest. I would recommend trialling a few you like and selecting one that goes well with your favourite tools for a paid subscription. Also consider privacy when comparing free to paid services.	Jaap van der Velde
6	If we run 3 batch at the same time with powershell , would we get the error for .xf file being open by another run ?	Hi Sima, you should be able to run mulitple models concurrently with the latest TUFLOW release (2025.1.2). XF filename command might help as well.	Abigail Lillo
7	This is not related to batch file or ai. But if it is relevant, here is a problem I ran with. I would really appreciate any direction . I would like to implement 2d_zsh changes in the DEM by providing a cross section in a csv file of a road section and reading that through a center line of the road such that the dem changes would occur based on the line and the associated cross section of that road is given?	Hi Swastik, please email this through to support@tuflow.com and we can provide a more detailed response	Abigail Lillo
8	Are there good ways that we can introduce error checking and debugging into tuflow automation? I love matlab and R studio as you can set apsue points and check how variables are going etc.	We try out best writting error messages from TUFLOW if anything goes wrong during the simulations. Hopefully these message can assist, but please feel free to let us know if your model crashes without spitting any meaningful error message. JV: yes, actually. TUFLOW writes all the output that gets written to the .tlf and .hpc.tlf to the screen as well. Some of the tools and methods discussed would allow you to watch and filter output as it being produced, which could tell you a lot about the health of the run. If the run fails, TUFLOW will set an errorlevel, which you can check for in your automation. And if you are writing and testing the automation scripts itself, you can use an editor like VS Code to set breakpoints and perform inspection if you use PowerShell instead of batch files. You get even more powerful options if you choose to develop your automation scripts in Python, of course	Shuang Gao, Jaap van der Velde

9	Can PowerShell be used to direct TUFLOW runs to available GPUs as well?	Yes, have a look at the additional materials provided with the presentation .PDF. There's an example that shows how you can obtain information about NVIDIA GPUs from the CLI as well. It's not trivial, but you could certainly check how many GPUs are in use for example, and only start new runs if a GPU is available for one.	Jaap van der Velde
10	Do you think being able to write code is a standard requirement for a flood modeller?	I don't think it's a requirement, but I certainly think it's a benefit. You can be much more productive and save yourself a lot of repetitive work if you have some basic coding skills. Learning about coding and using your computer will also greatly improve the benefit you will be able to get from using AI. Whenever you ask an LLM chatbot a question and it gives you an answer that involves scripts, commands, or code, it would be bad to just enter what it says and hope for the best, and certainly limiting - how far are you willing to trust it not to damage your data or computer? And if you no longer understand what it is you are doing, is the AI on its way to take over your job? On the other hand, if you use the AI to help you learn about code and automation, you'll end up being able to do more yourself and the AI will work for you instead of the other way around. Even without AI though, I think coding is a very helpful skill to have. A lot of work is repetitive, and some work is simply impossible to do by hand, while still adding value.	Jaap van der Velde
11	Hi, Thanks for the presentation. just a general question. do we have these automation tools on tuflow websie? if not can the developers make a few? to save our time	Check what is provided as extra materials with the presentation in PDF format - the examples that were demonstrated have been provided as code with some minimal explanation. Some of them have documentation where they are available. If you have need for a specific tool, feel free to ask support@tuflow.com if they can recommend a solution, or perhaps we can use your idea to develop new solutions for our users.	Jaap van der Velde