

#	Question	Answer	Answer Name
1	Now that the manuals are in web format, can an entire manual still be downloaded as a single pdf?	Yup. In the upper right hand corner of any page, you can click on the PDF button and elect to export the entire document.	Michael Bartles
2	How long would it take an individual to learn the software	Well, that depends. We're always looking to make our software usable by anyone who has interest in hydrology. However, there are definitely aspects of HEC-HMS that should be considered advanced features that may require quite a bit of background information to use effectively.	Michael Bartles
3	Do you have motecarlo too in HEC HMS?	Yes. Tommy will talk about one specific application of this capability.	Michael Bartles
4	Does HEC-HMS has a python API that could be used to communicate with the software using scripts and cli?	Yes, there's a limited Java and Python API: https://www.hec.usace.army.mil/confluence/hmsdocs/hmsum/4.8/scripting We'd like to develop this further to give MCP type capability!	Thomas Brauer
5	Does Hec-Hms also do non-linear routing like RORB?	I'm not familiar with RORB but we have a few versions of non-linear routing, most notably Modified Puls and 2D Diffusion Wave.	Thomas Brauer
6	Can HEC-HMS be run from the command line / without the GUI?	There's a limited API for scripting (https://www.hec.usace.army.mil/confluence/hmsdocs/hmsum/4.8/scripting) but not currently command line interaction. We'd like to add MCP-style integration in the future!	Thomas Brauer
7	Are there future plans to integrate HMS and RAS together for one program to run hydrology and hydraulics?	No immediate plan to integrate HMS and RAS mostly because of the language barrier as was mentioned in another question. Our plan is to have the two programs interoperate as seamlessly as possible in the future.	Thomas Brauer
8	What is the latest version HEC released that we can use in Australia?	Do you mean HEC-HMS? the latest one is 4.14 and 4.15 has alpha release available .	Abhijeet Patel
		Both HMS & RAS	Sonam Wangchuk
		latest RAS version is 7.0.1 (old UI). The RAS 2025 is in beta now. https://www.hec.usace.army.mil/software/hec-ras/download.aspx	Abhijeet Patel
		Yes, HEC-HMS v4.14 is our latest release: https://www.hec.usace.army.mil/software/hec-hms/downloads.aspx HEC-RAS can be downloaded here: https://www.hec.usace.army.mil/software/hec-ras/download.aspx	Thomas Brauer
9	Are there any plans to implement some of the features of SWMM engine in future HMS updates?	I'd like to hear what SWMM features you'd like us to add to HEC-HMS. I should note that the HEC-RAS team have added numerous pipe/stormwater modeling features w/in recent releases that are in line with capabilities in SWMM.	Michael Bartles
10	It is very interesting to know that HEC-HMS is written in Java! and it is even more interesting, given the fact that that HEC-RAS is written in C#. Do you guys have programming languages wars as well at the USACE? (For those who don't know, there is a decades-long rivalry between C# and Java) I am just even more interested to know why the decision was made (whether for HEC-HMS or HEC-RAS) to pick that particular language for that particular software development? Is the development of HEC-RAS sponsored by Microsoft? Or the development team of HEC-HMS is more into open-source (given that C# was a closed-source	Good observation! There's a long history there. HEC-HMS was originally written in C++, RAS was written in Fortran with a Visual Basic UI. HEC-HMS was ported to Java early in its lifecycle. RAS was patched with various Microsoft languages during its lifecycle. When it came time to modernize RAS took the C# route and HMS took the Java route. So our plan is to keep the programs independent but do our best to have them interoperate well.	Thomas Brauer
11	Any future plans to add groundwater interactions to RAS and HMS? Get a fully integrated modeling system	We would love to add groundwater! Given our primary demand is for flooding/high flows it's been less of an immediate need but definitely something we would like to add in time.	Thomas Brauer
12	Does the current version of HEC-HMS support hydrologic conditioning of a raw DEM file? If not, what is upcoming in future versions? Thank you.	Yup. Check out this page for more information: https://www.hec.usace.army.mil/confluence/hmsdocs/hmsum/4.14/geographic-information/gis-menu . Specifically, look for the GIS Terrain Reconditioning step.	Michael Bartles

13	Can you point me to where I can start learning this? say a beginner? introduction to concepts as well.	Yes, this is a great place to start: https://www.hec.usace.army.mil/confluence/hmsdocs/hmsguides	Thomas Brauer
14	Could you please describe when it would be more beneficial to get excess precip grids from HMS and bring those into RAS opposed to using the loss methods within RAS? or instances where using the loss methods with RAS should not be used?	RAS doesn't include baseflow and is not intended for long term continuous simulation. So if baseflow is a large contributor to flow or your simulation is more than a few days I would start to consider using excess precip from HMS as your precip input.	Thomas Brauer
15	How do you deal with large subbasin with more than 10000sqkm in HEC HMS? Especially having only one gauging station in the most downstream area (outlet)?	This isn't too large for HEC-HMS. I would start by trying to model as one subbasin and evaluating results at your flow location. If the results are not satisfactory I would start to subdivide wherever there are significant changes in hydrology, e.g. slope, surface condition, soils, and re-evaluate after subdividing and making appropriate parameter changes.	Thomas Brauer
16	I am new to HEC-HMS and mainly use Infoworks ICM for my work. Could you explain the key differences between two, particularly in terms of sewer modelling?	I'm not familiar with ICM so I can speak to differences between the software. HEC-HMS isn't designed to do stormwater or sewer modeling so there's probably better software to use for that application.	Thomas Brauer
17	Does HMS has plans to allow more finer/larger datasets ie finer DEM resolution for hydrological modelling? I had a project where client provides a very fine resolution (1m*1m) DEM dataset and HMS has troubles working on it.	You typically don't need a 1m*1m DEM for hydrologic modeling. The DEM is just used for watershed delineation. High res DEM is more important for hydraulic modeling. Please check out this tutorial and guide for more information pertaining to this topic: https://www.hec.usace.army.mil/confluence/hmsdocs/hmsguides/gis-tools-and-terrain-data/gis-tutorials-and-guides/comparing-gis-processing-run-times-with-different-size-terrain-models-and-computers	Thomas Brauer
18	I am also new to HEC-HMS, for an event-based HEC-HMS model, which parameters are usually most important to calibrate and later evaluate for uncertainty?	There are no hard rules for calibration but I like to start with loss rates to calibrate volume first, and then move on to transform parameter to calibrate timing, and then baseflow to calibrate the recession limb. Please check out these tutorials and guides for more information pertaining to model calibration: https://www.hec.usace.army.mil/confluence/hmsdocs/hmsguides/model-calibration-and-validation . Also, please check out these tutorials and guides for more information pertaining to evaluating parameter sensitivity: https://www.hec.usace.army.mil/confluence/hmsdocs/hmsguides/modeling-snowmelt-in-hec-hms/evaluating-snowmelt-parameter-sensitivity-using-the-uncertainty-analysis	Thomas Brauer
19	I'm wondering how model results are validated against observed data. What data and criteria would you typically use to calibrate and validate an HEC-HMS model?	Calibration and validation are best done by comparing statistical metrics like Nash Sutcliffe Efficiency and Root Mean Square Error. Typically a model is calibrated to a number of events or a simulation period, and then tested against different events or a different simulation period as validation. Please check out these tutorials and guides for more information pertaining to model calibration: https://www.hec.usace.army.mil/confluence/hmsdocs/hmsguides/model-calibration-and-validation .	Thomas Brauer