

Embedding iCOASST Into Practice: Model Evaluations


Model name	MESO i
Evaluation date	November 2016
Version of model and operating system used	Not stated
Model filename	MESO_i_Inc50_CCO.zip
Manual filename and date	Meso_i User Manual (July 2016)
Version of windows used for the evaluation	Windows 7 Enterprise Version, 64 bit

Scorings

0: No/ Not met / Unsatisfactory / Inappropriate

0.5: Partially met / appropriate in some aspects

1: Yes / met / Satisfactory / Appropriate

 Evaluation not relevant for the user type

MODEL NAME: MESO_i					
	E valuation Question	Score (0 / 0.5 / 1)			Comment
		For User Type 1: End User (Coastal Manager)	For User Type 2: Basic modeller (simple input changes only)	For User Type 3: Advanced modeller / model coder (application to entirely new systems / model development)	
A. WEBSITE MODEL INTRODUCTION http://www.channelcoast.org/iCOASST/introduction/	1. Is the model description on the website adequate to understand what the model is for?	1	1	1	The model description provides a simple and clear explanation of the type of model and how it works.
	2. Are relevant applications of the model explained?	1	1	1	Typical applications of the model have been described along with a case study.
	3. Are the key model assumptions and limits to the model use explained?	1	1	1	The main assumption and limitation regarding the key concept of the model is included.
	4. Is the level of expertise required to use the model and/or use the results specified?	0	0	0	There is no information on the level of expertise required to run the model and understand the outputs.

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B MODEL DOWNLOAD http://www.channelcoast.org/iCOASST/introduction/	1. Can you download the source code and/or executable/dll?		1	1	The model can be downloaded under the download model tab, which includes the executable and source code.
	2. Are there simple instructions to install, with images if needed?	1	1	1	There are simple instructions
	4. Are the model boundary conditions explained?	0.5	1	1	These can inferred from the text.

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C. MODEL USER MANUAL	1. Is the user manual easy to read , user friendly and comprehensive?	1	1	0.5	The user manual is easy to follow and fairly comprehensive.
	2. Is there sufficient information provided on what the model is doing and how it works?	1	1	0.5	There is a sufficient amount of information to understand how the model works. The use of figures and tables enhance the readers understanding of the model's structure. An advanced modeller may prefer more technical detail to modify or develop the model.
D. MODEL INPUTS	1. Is example model input data available to download and enough information provided to understand what they data represents?		1	1	Example model inputs are available to download from the website and the user manual provides a table defining each parameter. The example inputs enable the user to run MESO_i freestanding or with the SCAPE+ outputs.
	2. Are all input parameters expanded / explained? Are ranges of values to be used		0.5	0.5	All input parameters are explained clearly with their default values and units. No ranges of values are included.

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	indicated? Are required units provided?				
	3. Are timescales and date stamp inputs explained?	1	1	1	Yes these are explained in the input parameter table. The time step is in number of tidal cycles and time scale in Georgian years.
	4. Are there any errors when you enter the compiled example data/input parameters?		0.5	0.5	Yes need an extra .dll installed on computer. Update: The model needed to be recompiled after the download, enabling the .exe to run. Once the model is recompiled the model runs successfully with the example inputs. No errors are produced.
E. MODEL RUNS	1. Does the model run successfully with the data provided?		0.5	0.5	No. Error: need an extra .dll installed on computer. Update: The model needed to be recompiled after the download, enabling the .exe to run. Now run successfully with the data provided.

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	2. Is information provided in the Manual on the operation system required and pre-requisites in terms of software?		0	0	No software prerequisite information in main body of user manual. Some information in the Appendix regarding the software needed to compile MESO_i .
	3. Is model calibration/validation discussed in the Manual?	0	0	0	No, there is no discussion about calibration.
	4. Have you been able to successfully run another example that is different to the one provided?		1	1	Added values to VE_down and V_attach input parameters
	5. Are potential errors and bugs dealt with in the manual?		0	0	No.
F. MODEL OUTPUTS	1. Are the output file headings explained in the Manual?	1	1	1	Yes the output headings are defined in the user manual (table 2).

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	2. Is the meaning of each of the output variables explained in the Manual?	0.5	0.5	0.5	There is no explanation of each output variable within outputs section, only a simple definition. These, however, are fairly self-explanatory outputs providing the rest of the user manual is understood.
	3. Is there a description of how to process (tabulate and display) the output data?		0	0	There is no information on how to tabulate or process the output data. Figure 3 that is included on the website would be a useful plot to include in the outputs section. This figure is an example of how to plot the outputs.
G. OTHER	1. Does the Manual make further recommendations for reading and supply references?	1	1	1	Yes there is a good amount of references.
	2. Is the Contact information completed?	1	1	1	Yes there is a contact name and email address.
	3. Is the email address valid ?	1	1	1	Yes

Recommendations table for model developer

Recommendation by HRW	Action response
Inclusion on the CCO website of the level of expertise needed to run the model .	
Include typical ranges for input parameters (table 1 in user manual).	
Check the model download is complete to be able to run straight from download without being re-compiled.	
Inclusion of software pre-requisites in user manual.	
Figure 3 from website would be useful within the user manual (as an example of how to plot the outputs).	