

Embedding iCOASST Into Practice: Model Evaluations

Model name	ASMITA
Evaluation date	November 2016
Version of model and operating system used	ASMITA V1.3, openMI wrapped, requires Matlab 2008 or newer and MS Excel (test run with 2016a).
Model filename	v1.0_amsita_lite_openMI_jan2017_2.zip
Manual filename and date	Asmita Lite Manual v1.0 (February 2010)
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: ASMITA					
	Evaluation 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 description is a simple one line statement clearly outlining the purpose of the model.
	2. Are relevant applications of the model explained?	0.5	0.5	0.5	The general application of the model has been described, along with an example of its application within a case study. More detail would be valuable.
	3. Are the key model assumptions and limits to the model use explained?	0.5	0.5	0.5	Assumptions are inferred from the text but there is no clear explanation of the limitations.
	4. Is the level of expertise required to use the model and/or use the results specified?	0	0	0	There is no indication of the level of expertise needed to use the model and results. It could be suggested that a background understanding of modelling and coastal morphology is essential for both.

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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 source code and executable are easy to download and are both included within the model download folder.
	2. Are there simple instructions to install, with images if needed?	1	1	1	Instructions are not included however, to download the model and source code is straight forward enough for these not to be needed. There is a link to the user manual in case the user is not sure how to proceed.

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	4. Are the model boundary conditions explained?	0.5	0.5	0.5	The boundary conditions can be inferred from the text although there is no clear indication. A non-coastal modeller may not be able to deduce these boundary conditions from the text.
C. MODEL USER MANUAL	1. Is the user manual easy to read , user friendly and comprehensive?	1	1	1	Very easy to read, including clear and concise instructions/information. This user manual is effective for its task and it gives a comprehensive description of the model. The easy to use format of the user manual in adobe reader allows the user to skip to the section that they are interested in.
	2. Is there sufficient information provided on what the model is doing and how it works?	1	1	1	From the user manual the model can easily be run with the example files, which gives the user a chance to get familiar with it. The model description is accompanied by simple diagrams to help the reader understand the model. The user manual also includes a clear model setup guide, using a setup steering file that is included with the model download.

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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 input data is included in the model download with instructions on how to run it in the user manual. The user manual also includes, in detail, what each input parameter represents.
	2. Are all input parameters expanded / explained? Are ranges of values to be used indicated? Are required units provided?		1	1	All input parameter definitions along with example values and a range of values, where necessary, can be found in a table. The units are also included in the table of input parameters.
	3. Are timescales and date stamp inputs explained?	1	1	1	The timescales and date stamp inputs are clearly explained in the model input section – in Georgian years.
	4. Are there any errors when you enter the compiled example data/input parameters?		0.5	1	One line in the source code needed commenting out. After that there were no errors.

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E. MODEL RUNS	1. Does the model run successfully with the data provided?		0.5	1	The model runs successfully after one line in the source code needed commenting out. The results match those given in the example results.
	2. Is information provided in the Manual on the operation system required and pre-requisites in terms of software?		1	1	Yes, the manual informs that it can only be run with Matlab version 2008 or newer. This has been tested using version 2016a.
	3. Is model calibration/validation discussed in the Manual?	0	0	0	These are not discussed in the user manual. Someone familiar with modelling might think to look in the references/ extra reading.
	4. Have you been able to successfully run another example that is different to the one provided?		1	1	Yes, by changing the number of each element within the steering file. The model ran successfully.
	5. Are potential errors and bugs dealt with in the manual?		0.5	0.5	No, there are no sections covering errors within the manual. Matlab provides information on the error location within the source code.
F. MODEL OUTPUTS	1. Are the output file headings explained in the Manual?	1	1	1	The results are provided in an easy to use Excel worksheet including headings. The user manual contains a list of the output variables so that they can be cross-referenced.

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	2. Is the meaning of each of the output variables explained in the Manual?	0.5	0.5	0.5	The user manual includes a list defining all the variables that are written to the worksheet. The units of these variables are missing.
	3. Is there a description of how to process (tabulate and display) the output data?		1	1	The variables are automatically written into Excel which make the data easy to tabulate and process. There is an example figure in the user manual which is helpful when plotting the results.
G. OTHER	1. Does the Manual make further recommendations for reading and supply references?	1	1	1	Yes there is ample amount of references included in the user manual with the main ones included on the download website. The website also provide the study site references.
	2. Is the Contact information completed?	1	1	1	There is contact information on the download website.
	3. Is the email address valid ?	1	1	1	No error. Tested email and received a response.

Recommendations table for model developer

Recommendation by HRW	Action response
The website could include more detail on the models application, assumption, limitations and boundary definitions.	text updated
Provide an updated version of the model with line commented out (yearnum.m (line 2)).	already done, CCO need to upload
Include units in the output section of the user manual – p25.	done