

FAQ

General

1. Q: What is SHIPMA in general used for?

A: The application of SHIPMA is primarily in port and fairway design, referring to both approach channels and inland waterways. According to PIANC a first estimate of the required channel width based on general guidelines has to be followed by ship manoeuvring simulations. In this we distinguish between fast-time simulation with Shipma (steered by an autopilot) and real-time simulations on a Ship Manoeuvring Simulator. The simulations with SHIPMA give insight into the inherent possibilities and/or restrictions of:

- Vessels including the effect of additional manoeuvring devices like bow and stern thrusters;
- Infrastructure;
- Environmental conditions;
- The role of tugs.

Based on the insights gained, mitigations, if needed, of the infrastructure design (channel layout, manoeuvring basin and terminal layout) and/or the admittance policy can be proposed. The fast-time simulations with SHIPMA do not include the human factors in ship handling. In the final stage of the design the SHIPMA study can be followed by a study on a real-time simulator to include human factors and fine-tune the SHIPMA results.

2. Q: Are there papers of case studies in which SHIPMA is used?

A: The following papers are available:

- a. [OPERATIONAL FRAME WORK AND SAFETY STUDIES \(paper\).pdf](#)
- b. [Nautical Safety Study for Marsaxlokk and Valletta \(paper\).pdf](#)

Vessels and tugs

1. Q: Why do I need two ship models for one ship with two drafts?

A: Ship models are specific for each ship. Even the same vessel at a different loading condition (loaded or ballasted) is a separate ship model. Reason is that the models consist of a set of hydrodynamic coefficients that are specific for that particular vessel at that loading condition. Coefficients are derived from tank tests and/or large scale measurements.

2. Q: Is there the option of inputting the ship main particulars, instead of purchasing ship models?

A: There's no option for this in SHIPMA as each model has its own coefficients. This makes SHIPMA less general, but more accurate.

3. Q: What are the tug capabilities

A: Tugs can be used in push and pull mode and can change from one bollard position to another bollard position during simulation. See [Tug capability diagram.pdf](#)

4. Q: Is there a list of standard SHIPMA vessels?

A: The following SHIPMA models are available from our [SHIPMA_Shiplist.pdf](#)

5. Q: What if my design vessel is not in the MARIN library?

A: On request vessels can be modelled by MARIN to the specifications of the required design vessel. To be able to model the required design vessel accurately, we require the following [info](#)

Databases

1. Q: Is it possible to create databases myself or do I need MARIN for this?

A: It is possible to create databases yourself, starting with editing the provided example files. For complex databases it is advised to involve MARIN

Environment

1. Q: Do I need to take wind gusts into account with regard to the wind coefficients?

A: The wind-coefficients are based on a average wind speed of 1 hour. So you need not take in account the wind gust in your calculations

2. Q: To what wave period in SHIP input is referred?

A: It refers to the wave peak period. By default we include sets for $T_p = 8, 10$ and 12 sec

3. Q: How is wave data imported?

A: Wave data is imported as an ASCII file consisting of a line specifying the wave peak period and consecutive lines with:
x, y, significant wave height, wave direction
You can give in any number of points you need

Training

1. Q: In what locations are training provided?

A: A training is given in our office in Wageningen, The Netherlands or on request in the clients office. The last option will result in cost for travelling and hotel for one person in addition to the regular training costs

2. Q: Is online training provided?

A: Yes, the training can be done online too.