MES TESTER

This document contains information on how to use the MES Tester.

Updated 21.06.2023

INTRODUCTION

MES Tester is a testing utility to monitor and verify functionality of the MES interface. There are 2 different modes of operation available: Client and Server.

In Server mode the MES Tester will host MES interface on the specific host and port. All of the TCP connections will be accepted and any successfully received and parsed MESMessages will be visualized. Sending a message will send MESMessage to all connected Clients.

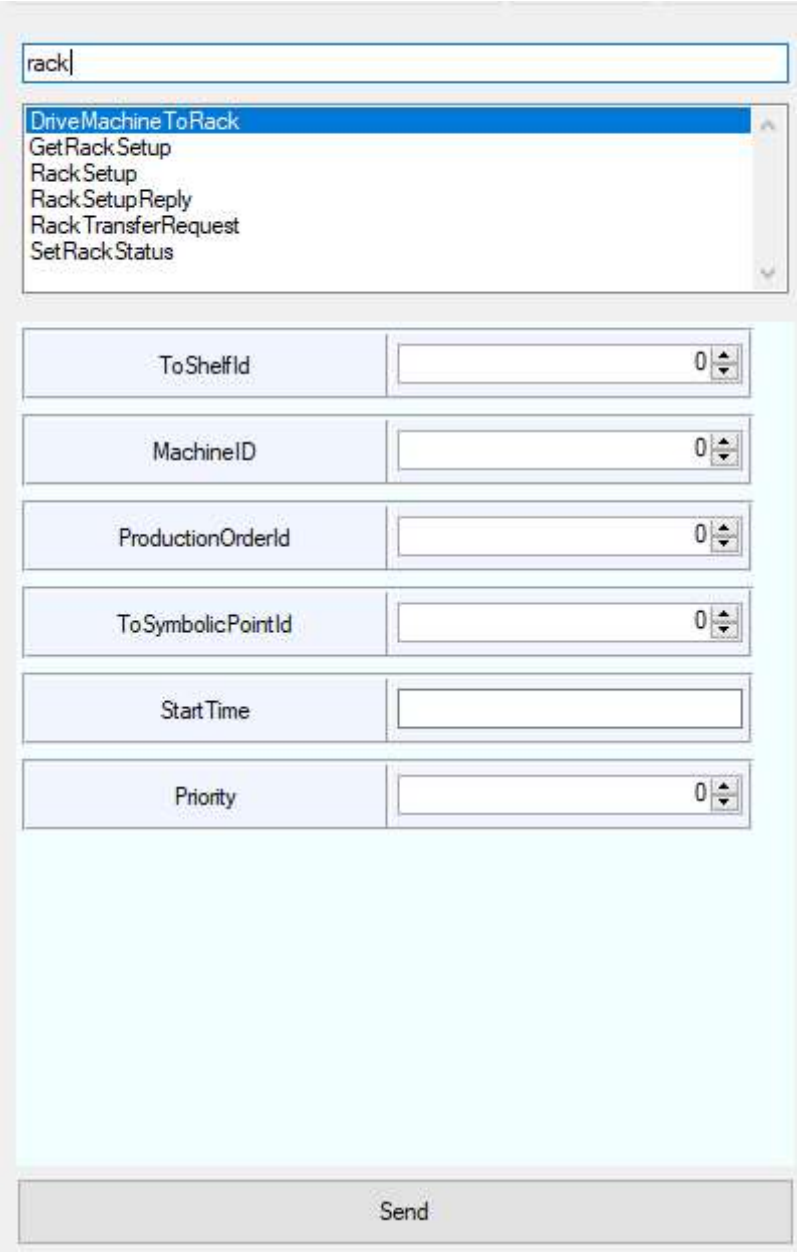
In Client mode the MES Tester will create a TCP connection to the specified host and port. After successful connection possible periodic messages will be visualized. It is also possible to send MESMessages to the Server for handling, the possible reply will also be visualized.

CONFIGURING CONNECTION

Example configuration

Connection can be configured by specifying host and port. In server mode the host is ignored but the MESCommunication will be hosted on specified port. In Client mode the connection will be attempted to the specified host and port.

HOW TO USE SEARCH



Searching for messages with "rack" in name

MES Tester supports 2 types of search for MESMessages:

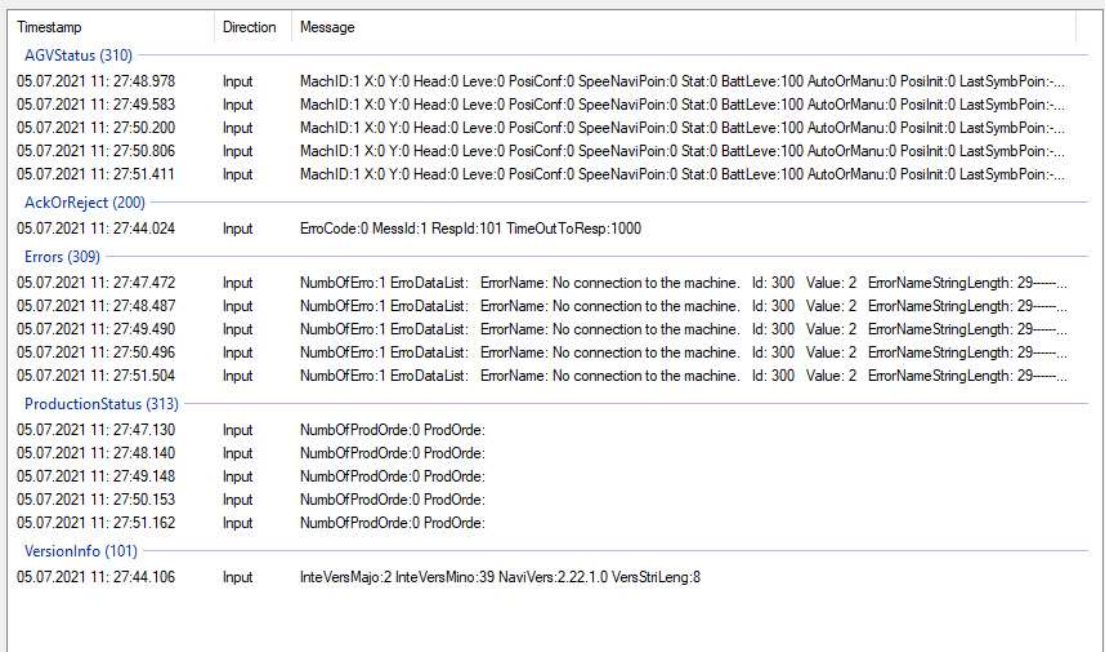
- Name based search
- Id based search

Typing the entire ID of message will filter the selection to single result only. The ID has to be precise match, there is no support for partial id search. This means inputting "2" will give matches only for "message with id 2" and NOT for "2", "22", "122".

Typing text into the search will start search based on the name of message. Currently there is no fuzzy search support but instead the

search works on partial matches. Input of "Rack" would give results for "DriveMachineToRack", "GetRackSetup", "RackTransferRequest".

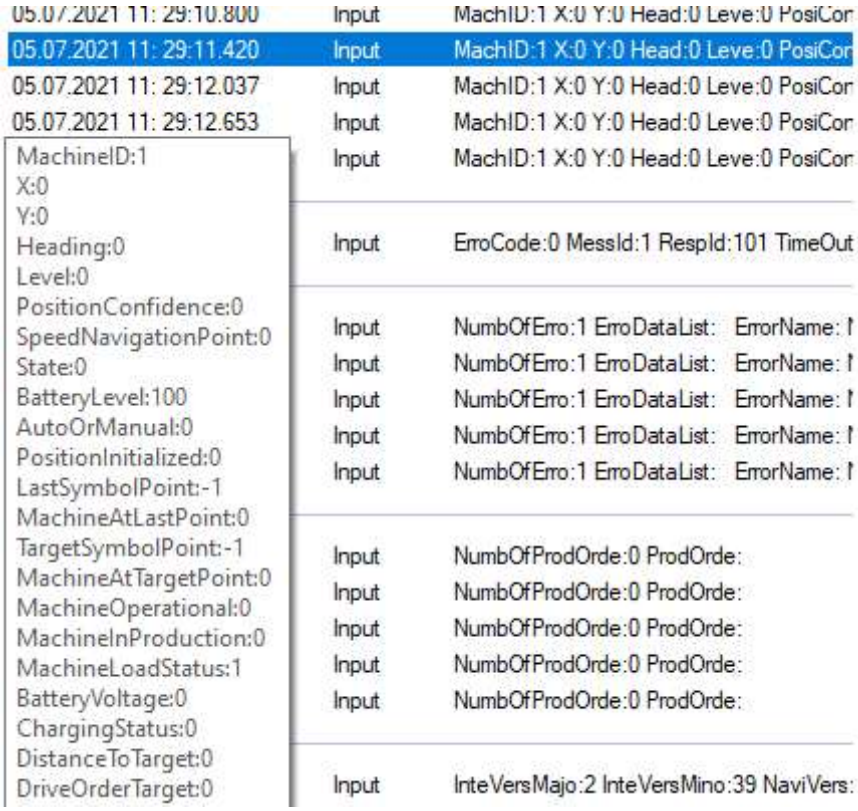
VIEWING MESSAGES



Timestamp	Direction	Message
AGVStatus (310)		
05.07.2021 11: 27:48.978	Input	MachID:1 X:0 Y:0 Head:0 Leve:0 PosiConf:0 SpeeNaviPoin:0 Stat:0 BattLeve:100 AutoOrManu:0 PosiInit:0 LastSymbPoin:-...
05.07.2021 11: 27:49.583	Input	MachID:1 X:0 Y:0 Head:0 Leve:0 PosiConf:0 SpeeNaviPoin:0 Stat:0 BattLeve:100 AutoOrManu:0 PosiInit:0 LastSymbPoin:-...
05.07.2021 11: 27:50.200	Input	MachID:1 X:0 Y:0 Head:0 Leve:0 PosiConf:0 SpeeNaviPoin:0 Stat:0 BattLeve:100 AutoOrManu:0 PosiInit:0 LastSymbPoin:-...
05.07.2021 11: 27:50.806	Input	MachID:1 X:0 Y:0 Head:0 Leve:0 PosiConf:0 SpeeNaviPoin:0 Stat:0 BattLeve:100 AutoOrManu:0 PosiInit:0 LastSymbPoin:-...
05.07.2021 11: 27:51.411	Input	MachID:1 X:0 Y:0 Head:0 Leve:0 PosiConf:0 SpeeNaviPoin:0 Stat:0 BattLeve:100 AutoOrManu:0 PosiInit:0 LastSymbPoin:-...
AckOrReject (200)		
05.07.2021 11: 27:44.024	Input	ErroCode:0 MessId:1 RespId:101 TimeOutToResp:1000
Errors (309)		
05.07.2021 11: 27:47.472	Input	NumbOfErro:1 ErroDataList: ErrorName: No connection to the machine. Id: 300 Value: 2 ErrorNameStringLength: 29------...
05.07.2021 11: 27:48.487	Input	NumbOfErro:1 ErroDataList: ErrorName: No connection to the machine. Id: 300 Value: 2 ErrorNameStringLength: 29------...
05.07.2021 11: 27:49.490	Input	NumbOfErro:1 ErroDataList: ErrorName: No connection to the machine. Id: 300 Value: 2 ErrorNameStringLength: 29------...
05.07.2021 11: 27:50.496	Input	NumbOfErro:1 ErroDataList: ErrorName: No connection to the machine. Id: 300 Value: 2 ErrorNameStringLength: 29------...
05.07.2021 11: 27:51.504	Input	NumbOfErro:1 ErroDataList: ErrorName: No connection to the machine. Id: 300 Value: 2 ErrorNameStringLength: 29------...
ProductionStatus (313)		
05.07.2021 11: 27:47.130	Input	NumbOfProdOrde:0 ProdOrde:
05.07.2021 11: 27:48.140	Input	NumbOfProdOrde:0 ProdOrde:
05.07.2021 11: 27:49.148	Input	NumbOfProdOrde:0 ProdOrde:
05.07.2021 11: 27:50.153	Input	NumbOfProdOrde:0 ProdOrde:
05.07.2021 11: 27:51.162	Input	NumbOfProdOrde:0 ProdOrde:
VersionInfo (101)		
05.07.2021 11: 27:44.106	Input	InteVersMajo:2 InteVersMino:39 NaviVers:2.22.1.0 VersStriLeng:8

Received messages after server connection has been made

In normal view the message fields are abbreviated to fit as many as possible into the view but if the message is long enough then it will not fit into the main view. To view full message with non-abbreviated names click on the message you want to view.



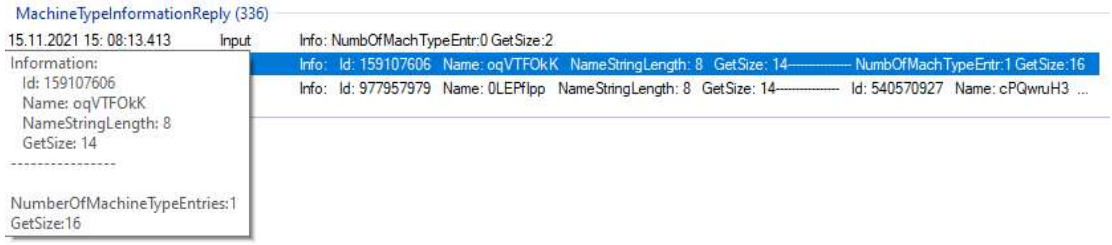
Tooltip that pops up after clicking on message.

FURTHER CONFIGURATION

Clicking on "Preferences" will open up further configuration options. The values here will be stored in plaintext in the same directory of the MES Tester in the file 'configuration.json'. These configurations might include some sensitive information like API tokens which should be cleared after testing has been done on production environments.

AUTOMATIC REPLIES

To make testing more automatic, MES Tester will reply to specific requests with randomized replies. This is to mock the behaviour of actual Navithor Server.



Randomized reply to GetProductionAreaInformation (52) when querying for machine types

CONNECTED CLIENTS AND PROTOCOL TESTING

When MES Tester is in Server mode it is possible to see connected client and run tests to ensure correct implementation of MES protocol. Click on 'Clients' button to open this view.

Connected clients UI. Clicking on button will send specified test message to client. Results of sent message(s) are not automatically analysed and has to be done manually.