

The MIDAS messages can now be filtered using different queries which can be also combined. There are 5 filters which can be chosen. After typing the filters in one needs to press enter or press the filter button. The messages will then be filtered until the whole filters are matched. The user can interrupt this by pressing a button or pressing with the mouse onto the screen. The different filters are:

- [Program Name](#): This field will filter the messages based on the name of the program (e.g. Sequencer, mhttpd)
- [Status](#): In this field the different message status can be filtered
- [Time](#): In this field the messages can be filtered on an hour base time
- [Search Text](#): Here the actual message text can be filtered
- [Hour filter](#): Here the messages are filter for the last x hours

The screenshot shows the Mu3e MIDAS interface. At the top right, it says "Alarms: None" and "10 Dec 2024, 23:51:49 UTC+1". Below this are buttons for "chat", "runlog", "midas", and "midas-small". The main interface has a sidebar on the left with a menu: Status, Transition, ODB, OldODB, Messages, Chat, Elog, Alarms, Programs, Buffers, History, OldHistory, MSCB, Sequencer, Event Dump, Config, Help, and DAQ. The main area is titled "Messages" and contains a list of log entries. The filters at the top are: "Filter: Program Name" (red box), "- all -" (dropdown), "Time (hh:mm:ss)" (green box), "Search Text" (orange box), "24 h" (blue box), "Filter" (yellow box), and "Select a recent filter" (dropdown). The messages list shows various entries with timestamps, dates, and text, such as "Client 'HV Frontend' on database 'ODB' pid 73891 does not exist and db_cleanup called by cm_periodic_tasks removed it" and "Run #582247 started".

Here is an example search which can be done. We start by changing the status field. The messages are greyed out to give a feedback to the user that the filter does not fit to the shown messages.

The screenshot shows the Mu3e monitoring interface. At the top right, it displays 'Alarms: None' and the date/time '10 Dec 2024, 23:52:00 UTC+1'. Below the header, there are buttons for 'chat', 'runlog', 'midas', and 'midas-small'. The main interface is divided into a left sidebar and a main content area. The sidebar contains a list of menu items: Status, Transition, ODB, OldODB, Messages, Chat, Elog, Alarms, Programs, Buffers, History, OldHistory, MSCB, Sequencer, Event Dump, Config, Help, and DAQ. The main content area has a search filter bar with 'Program Name' selected, a dropdown menu set to 'INFO', and a 'Time (hh:mm:ss)' field. Below the filter bar, the 'Messages' section is displayed. The messages are listed in a table with columns for time, date, and message content. The messages are mostly greyed out, indicating they do not match the 'INFO' filter. The messages include information about client connections, equipment status, and sequencer runs.

Time	Date	Message
15:41:27.131	2024/12/06	[mhttpd,INFO] Client 'HV Frontend' on database 'ODB' pid 73891 does not exist and db_cleanup called by cm_periodic_tasks removed it
15:41:27.131	2024/12/06	[mhttpd,INFO] Client 'HV Frontend' on buffer 'SYSMSG' removed by cm_periodic_tasks because process pid 73891 does not exist
15:41:26.758	2024/12/06	[HV Frontend,ERROR] [midas.cxx:2202:cm_check_connect,ERROR] cm_disconnect_experiment not called at end of program
15:41:26.758	2024/12/06	[HV Frontend,ERROR] [mfe.cxx:839:initialize_equipment,ERROR] Equipment MuPix HV disabled because of Hardware error
15:41:26.758	2024/12/06	[HV Frontend,ERROR] [mscbhv4.cxx:95:mscbhv4_init,ERROR] Cannot access MSCB submaster at "mscb380". Check power and connection.
15:41:26.757	2024/12/06	[HV Frontend,INFO] Client 'HV Frontend' on buffer 'SYSTEM' removed by bm_open_buffer because process pid 73715 does not exist
15:40:30.826	2024/12/06	[mhttpd,INFO] Client 'HV Frontend' on database 'ODB' pid 73715 does not exist and db_cleanup called by cm_periodic_tasks removed it
15:40:30.826	2024/12/06	[mhttpd,INFO] Client 'HV Frontend' on buffer 'SYSMSG' removed by cm_periodic_tasks because process pid 73715 does not exist
15:40:30.493	2024/12/06	[HV Frontend,ERROR] [midas.cxx:2202:cm_check_connect,ERROR] cm_disconnect_experiment not called at end of program
15:40:30.493	2024/12/06	[HV Frontend,ERROR] [mfe.cxx:839:initialize_equipment,ERROR] Equipment SciTile HV disabled because of Hardware error
15:40:30.493	2024/12/06	[HV Frontend,ERROR] [mscbhv4.cxx:95:mscbhv4_init,ERROR] Cannot access MSCB submaster at "mscb380". Check power and connection.
15:40:30.493	2024/12/06	[HV Frontend,ERROR] [mfe.cxx:839:initialize_equipment,ERROR] Equipment MuPix HV disabled because of Hardware error
15:40:30.493	2024/12/06	[HV Frontend,ERROR] [mscbhv4.cxx:95:mscbhv4_init,ERROR] Cannot access MSCB submaster at "mscb380". Check power and connection.
23:56:37.148	2024/11/16	[Sequencer,INFO] Run #582247 started
23:56:31.604	2024/11/16	[Sequencer,INFO] Run #582246 stopped
23:50:20.845	2024/11/16	[Sequencer,INFO] Run #582246 started
23:50:15.510	2024/11/16	[Sequencer,INFO] Run #582245 stopped
23:44:02.131	2024/11/16	[Sequencer,INFO] Run #582245 started
23:43:56.793	2024/11/16	[Sequencer,INFO] Run #582244 stopped
23:37:47.815	2024/11/16	[Sequencer,INFO] Run #582244 started
23:37:42.279	2024/11/16	[Sequencer,INFO] Run #582243 stopped
23:31:35.296	2024/11/16	[Sequencer,INFO] Run #582243 started
23:31:29.844	2024/11/16	[Sequencer,INFO] Run #582242 stopped
23:25:14.535	2024/11/16	[Sequencer,INFO] Run #582242 started
23:25:08.998	2024/11/16	[Sequencer,INFO] Run #582241 stopped
23:18:30.833	2024/11/16	[Sequencer,INFO] Run #582241 started
23:18:25.385	2024/11/16	[Sequencer,INFO] Run #582240 stopped
23:12:09.448	2024/11/16	[Sequencer,INFO] Run #582240 started
23:12:04.014	2024/11/16	[Sequencer,INFO] Run #582239 stopped
23:05:22.223	2024/11/16	[Sequencer,INFO] Run #582239 started
23:05:16.487	2024/11/16	[Sequencer,INFO] Run #582238 stopped
23:00:06.866	2024/11/16	[mhttpd,INFO] Alarm "RDC PS high current" reset
22:59:31.039	2024/11/16	[Logger,INFO] Execute: /home/meg/online/alarms/all_alarm 'General alarm: RDC PS current is too high, [119] 125 > 124' ''
22:59:31.039	2024/11/16	[Logger,TALK] General alarm: RDC PS current is too high, [119] 125 > 124
22:59:31.039	2024/11/16	[Logger,TALK] RDC Alarm: RDC PS current is too high, [119] 125 > 124
22:59:10.111	2024/11/16	[Sequencer,INFO] Run #582238 started

After pressing enter/filter the messages which fulfill the search are shown in green.

The screenshot shows the Mu3e software interface. On the left is a sidebar menu with options: Status, Transition, ODB, OldODB, Messages, Chat, Elog, Alarms, Programs, Buffers, History, OldHistory, MSCB, Sequencer, Event Dump, Config, Help, and DAQ. The main window has a top bar with 'Mu3e' on the left, 'Alarms: None' in a green bubble, and the date '10 Dec 2024, 23:52:08 UTC+1' on the right. Below the top bar are buttons for 'chat', 'runlog', 'midas', and 'midas-small'. A filter bar contains 'Filter: Program Name', a dropdown menu set to 'INFO', 'Time (hh:mm:ss)', 'Search Text', '24 h', and a 'Filter' button. The main area is titled 'Messages' and displays a list of log entries. The entries are highlighted in green, indicating they match the filter. The messages include information about client connections, buffer removals, sequencer runs, and an alarm reset.

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15:41:27.131 2024/12/06 [mhttpd,INFO] Client 'HV Frontend' on database 'ODB' pid 73891 does not exist and db_cleanup called by cm_periodic_tasks removed it
15:41:27.131 2024/12/06 [mhttpd,INFO] Client 'HV Frontend' on buffer 'SYSMSG' removed by cm_periodic_tasks because process pid 73891 does not exist
15:41:26.757 2024/12/06 [HV Frontend,INFO] Client 'HV Frontend' on buffer 'SYSTEM' removed by bm_open_buffer because process pid 73715 does not exist
15:40:30.826 2024/12/06 [mhttpd,INFO] Client 'HV Frontend' on database 'ODB' pid 73715 does not exist and db_cleanup called by cm_periodic_tasks removed it
15:40:30.826 2024/12/06 [mhttpd,INFO] Client 'HV Frontend' on buffer 'SYSMSG' removed by cm_periodic_tasks because process pid 73715 does not exist
23:56:37.148 2024/11/16 [Sequencer,INFO] Run #582247 started
23:56:31.604 2024/11/16 [Sequencer,INFO] Run #582246 stopped
23:50:20.845 2024/11/16 [Sequencer,INFO] Run #582246 started
23:50:15.510 2024/11/16 [Sequencer,INFO] Run #582245 stopped
23:44:02.131 2024/11/16 [Sequencer,INFO] Run #582245 started
23:43:56.793 2024/11/16 [Sequencer,INFO] Run #582244 stopped
23:37:47.815 2024/11/16 [Sequencer,INFO] Run #582244 started
23:37:42.279 2024/11/16 [Sequencer,INFO] Run #582243 stopped
23:31:35.296 2024/11/16 [Sequencer,INFO] Run #582243 started
23:31:29.844 2024/11/16 [Sequencer,INFO] Run #582242 stopped
23:25:14.535 2024/11/16 [Sequencer,INFO] Run #582242 started
23:25:08.998 2024/11/16 [Sequencer,INFO] Run #582241 stopped
23:18:30.833 2024/11/16 [Sequencer,INFO] Run #582241 started
23:18:25.385 2024/11/16 [Sequencer,INFO] Run #582240 stopped
23:12:09.448 2024/11/16 [Sequencer,INFO] Run #582240 started
23:12:04.014 2024/11/16 [Sequencer,INFO] Run #582239 stopped
23:05:22.223 2024/11/16 [Sequencer,INFO] Run #582239 started
23:05:16.487 2024/11/16 [Sequencer,INFO] Run #582238 stopped
23:00:06.866 2024/11/16 [mhttpd,INFO] Alarm "RDC PS high current" reset
22:59:31.039 2024/11/16 [Logger,INFO] Execute: /home/meg/online/alarms/all_alarm 'General alarm: RDC PS current is too high, [119] 125 > 124' ''
22:59:10.111 2024/11/16 [Sequencer,INFO] Run #582238 started
22:59:04.668 2024/11/16 [Sequencer,INFO] Run #582237 stopped
22:57:06.861 2024/11/16 [mhttpd,INFO] Operator "Daniele Pasciuto, Hiromu Suzuki" registered
22:52:54.478 2024/11/16 [Sequencer,INFO] Run #582237 started
22:52:49.235 2024/11/16 [Sequencer,INFO] Run #582236 stopped
22:46:41.987 2024/11/16 [Sequencer,INFO] Run #582236 started
22:46:36.642 2024/11/16 [Sequencer,INFO] Run #582235 stopped
22:40:24.259 2024/11/16 [Sequencer,INFO] Run #582235 started
22:40:19.026 2024/11/16 [Sequencer,INFO] Run #582234 stopped
22:34:09.700 2024/11/16 [Sequencer,INFO] Run #582234 started
22:34:04.133 2024/11/16 [Sequencer,INFO] Run #582233 stopped
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Now we add a program name. The messages below the green background are the unfiltered ones.

The screenshot shows the Mu3e monitoring interface. The top bar includes the name 'Mu3e', a status indicator 'Alarms: None', and the current time '10 Dec 2024, 23:52:24 UTC+1'. Below the top bar are buttons for 'chat', 'runlog', 'midas', and 'midas-small'. A filter bar contains a text input field with 'mhttpd' (highlighted with a red box), a dropdown menu set to 'INFO', a time range selector set to '24 h', and a 'Filter' button. The main area is titled 'Messages' and displays a list of log entries. The first 17 entries, all starting with '[mhttpd,INFO]', are highlighted with a green background. These entries include messages about client removal, alarm resets, operator registrations, and run status changes. The remaining 17 entries, starting with '[Sequencer,INFO]', are on a white background and show a sequence of run starts and stops.

Time	Date	Program	Level	Message
15:41:27.131	2024/12/06	mhttpd	INFO	Client 'HV Frontend' on database 'ODB' pid 73891 does not exist and db_cleanup called by cm_periodic_tasks removed it
15:41:27.131	2024/12/06	mhttpd	INFO	Client 'HV Frontend' on buffer 'SYSMSG' removed by cm_periodic_tasks because process pid 73891 does not exist
15:40:30.826	2024/12/06	mhttpd	INFO	Client 'HV Frontend' on database 'ODB' pid 73715 does not exist and db_cleanup called by cm_periodic_tasks removed it
15:40:30.826	2024/12/06	mhttpd	INFO	Client 'HV Frontend' on buffer 'SYSMSG' removed by cm_periodic_tasks because process pid 73715 does not exist
23:00:06.866	2024/11/16	mhttpd	INFO	Alarm "RDC PS high current" reset
22:57:06.861	2024/11/16	mhttpd	INFO	Operator "Daniele Pasciuto, Hiromu Suzuki" registered
20:10:08.271	2024/11/16	mhttpd	INFO	Alarm "RDC PS high current" reset
20:09:50.178	2024/11/16	mhttpd	INFO	Execute: /home/meg/online/alarms/all_alarm 'General alarm: RDC PS current is too high, [120] 125 > 124' ''
19:17:35.730	2024/11/16	mhttpd	INFO	Run #582203 stopped
18:05:43.220	2024/11/16	mhttpd	INFO	Run #582197 stopped
17:42:10.533	2024/11/16	mhttpd	INFO	Alarm "Events dont increase" reset
17:42:04.242	2024/11/16	mhttpd	INFO	Run #582193 stopped
17:42:02.738	2024/11/16	mhttpd	INFO	RPC client connection to "EPICS Frontend" on host "localhost" unexpectedly closed
17:41:32.820	2024/11/16	mhttpd	INFO	Alarm "Events dont increase" reset
17:37:40.745	2024/11/16	mhttpd	INFO	Client 'EPICS Frontend' on buffer 'SYSTEM' removed by cm_periodic_tasks because process pid 2714025 does not exist
14:59:04.947	2024/11/16	mhttpd	INFO	Operator "Marco Chiappini, Victor Krylov" registered
12:32:41.232	2024/11/16	mhttpd	INFO	Alarm "RDC PS high current" reset
09:10:17.131	2024/11/16	mhttpd	INFO	Run #582101 stopped
07:03:32.523	2024/11/16	mhttpd	INFO	Operator "Paolo Cattaneo, Fabrizio Cei" registered
04:30:23.939	2024/11/16	mhttpd	INFO	Alarm "RDC PS high current" reset
00:56:15.062	2024/11/16	Sequencer	INFO	Run #582022 started
00:56:09.587	2024/11/16	Sequencer	INFO	Run #582021 stopped
00:49:15.436	2024/11/16	Sequencer	INFO	Run #582021 started
00:49:10.367	2024/11/16	Sequencer	INFO	Run #582020 stopped
00:43:18.229	2024/11/16	Sequencer	INFO	Run #582020 started
00:43:12.882	2024/11/16	Sequencer	INFO	Run #582019 stopped
00:37:21.290	2024/11/16	Sequencer	INFO	Run #582019 started
00:37:16.037	2024/11/16	Sequencer	INFO	Run #582018 stopped
00:31:15.306	2024/11/16	Sequencer	INFO	Run #582018 started
00:31:10.150	2024/11/16	Sequencer	INFO	Run #582017 stopped
00:25:10.407	2024/11/16	Sequencer	INFO	Run #582017 started
00:25:05.256	2024/11/16	Sequencer	INFO	Run #582016 stopped
00:19:14.083	2024/11/16	Sequencer	INFO	Run #582016 started
00:19:08.835	2024/11/16	Sequencer	INFO	Run #582015 stopped
00:12:05.081	2024/11/16	Sequencer	INFO	Run #582015 started
00:11:59.434	2024/11/16	Sequencer	INFO	Run #582014 stopped

Now some more filters about the time

The screenshot shows the Mu3e monitoring interface. On the left is a sidebar with navigation options: Status, Transition, ODB, OldODB, Messages, Chat, Elog, Alarms, Programs, Buffers, History, OldHistory, MSCB, Sequencer, Event Dump, Config, Help, and DAQ. The top right corner displays 'Alarms: None' and the current time '10 Dec 2024, 23:52:36 UTC+1'. Below the sidebar, there are buttons for 'chat', 'runlog', 'midas', and 'midas-small'. A filter bar contains 'Filter: mhttpd', a level dropdown set to 'INFO', a time filter '15:41' (highlighted with a green box), a 'Search Text' input, a '24 h' duration dropdown, and a 'Filter' button. Below the filter bar is a 'Messages' section with a blue header. The message log shows two highlighted entries at 15:41:27.131 on 2024/12/06, both from [mhttpd,INFO]. The first message states: 'Client 'HV Frontend' on database 'ODB' pid 73891 does not exist and db_cleanup called by cm_periodic_tasks removed it'. The second message states: 'Client 'HV Frontend' on buffer 'SYSMSG' removed by cm_periodic_tasks because process pid 73891 does not exist'. The rest of the log shows a series of messages from [Sequencer,INFO] and [BGAnalyzer,INFO] with timestamps from 2024/11/16.

And finally on the text. After removing all filters all messages will be shown again.

The screenshot shows the Mu3e monitoring interface. On the left is a sidebar with navigation options: Status, Transition, ODB, OldODB, Messages, Chat, Elog, Alarms, Programs, Buffers, History, OldHistory, MSCB, Sequencer, Event Dump, Config, Help, and DAQ. The top right corner displays 'Alarms: None' and the date '10 Dec 2024, 23:52:46 UTC+1'. Below the sidebar, there are buttons for 'chat', 'runlog', 'midas', and 'midas-small'. A filter bar contains 'Filter: mhttpd', a dropdown menu set to 'INFO', a time filter '15:41', a search box containing 'on database', a '24 h' dropdown, and a 'Filter' button. The main area is titled 'Messages' and contains a list of log entries. The top entry is highlighted in green: '15:41:27.131 2024/12/06 [mhttpd,INFO] Client 'HV Frontend' on database 'ODB' pid 73891 does not exist and db_cleanup called by cm_periodic_tasks removed it'. Other entries include 'Sequencer,INFO' messages about runs starting and stopping, and 'BGAnalyzer,INFO' messages about suppressed messages and reftime settings.