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# 1 Introduction

## 1.1 MUM

### MUM version 1.8

MUM is a Windows application that allows two-way communication between the PC and certain Martin fixtures.

The application requires a Martin USB DABS 1 interface in order to communicate with the fixtures. MUM can only communicate with one fixture at a time.

MUM is designed to work with Windows 98, ME, 2000 and XP.

MUM currently supports communication with the following fixtures, fixtures listed with a version number, must have at least that version to be supported in MUM.

- Martin Alien O2, version 2.1.0+
- Martin Exterior 200, version 2.0.0+
- Martin Exterior 600, version 2.0.0+
- Martin Exterior 600 compact, version 2.0.0+
- Martin Exterior 600 NS
- Martin Exterior 1200 Wash
- Martin Exterior 1200 IP
- Martin Fiber Source CMY 150, version 2.0.0+
- Martin Imager, version 2.1.0+
- Martin Inground 200 CMYI
- Martin Inground 200 CI
- Martin Exterior 200 LED
- Martin Extube
- Martin Tripix 300 and 1200
- Martin Exterior 400 LED series

## 1.2 Release note

### Version 1.8

- Implements support for Martin Exterior 400 LED series

### Version 1.7

- Implements support for Martin Tripix 300 and Martin Tripix 1200 fixtures

### Version 1.6

- Implements demo mode for Martin Extube Fixtures

### Version 1.5

- Implements support for Martin Extube fixtures.

### Version 1.3

- Implements support for Martin Exterior 1200 IP, Martin Exterior 1200 Wash, Martin Exterior 200 LED and Martin Exterior 600NS.

- Added a button to save fixture logs into a text file for fixtures where logs are available.

#### **Version 1.2**

- Implements support for Martin Alien O2 and Martin Imager
- Ext200/Fi150 DMX Reset swapped from version 2.3.0/2.2.0 and down.
- Ext200/Fi150 Adjust dimmer open fixed.
- Ext200/Fi150 Upload speed improved (requires new firmware).
- Sound bug in "Fixture settings" and when Connecting/Refreshing fixed.
- Fixture memory file version 0.0 bug: When Refresh was pressed, file version was set to 0.0.
- Pop-up help added to all input-fields.

#### **Version 1.1**

- Implements support for Martin Inground CMYI and CI

#### **Version 1.0**

- Initial release

## **2 Demo Mode**

### **2.1 Running MUM in Demo mode**

MUM may be run in demo mode giving access to functions of selected fixtures. MUM will automatically enter demo mode upon startup if no hardware interface is found - to enable demo mode, simply unplug the USB DABS 1 before starting MUM. Do NOT unplug the DABS 1 while MUM is running.

## **3 Hardware Interface and driver**

### **3.1 Installing the driver for the Martin USB DABS 1**

The Martin USB DABS 1 interface is required to establish a connection between PC and fixture. To use the DABS 1 a Windows driver must be installed on the PC.

Installing the DABS 1 driver:

- Start up Windows
- Insert the DABS into a USB port
- After a few seconds Windows will detect new USB hardware 'Martin Professional USB DABS 1' and start the *New Hardware Wizard*.
- Follow the guidelines of the *New Hardware Wizard* to 'install the drivers yourself' by specifying a location (the exact method depends on Windows version). The DABS 1 driver files are located on the Martin Utilities (for Windows) CD in the \Drivers\DABS1\ folder. The driver files are also copied to the harddisk as part of the MUM installation and are located in <MUM folder>\Drivers\DABS1
- Browse to the location of the driver files and, depending on Windows version, select either the entire folder or DABS1.Inf file to specify the driver.
- Follow the *New hardware Wizard* to finalize installation of the driver and restart Windows if prompted to do so.

The driver for the DABS 1 is now installed and the DABS 1 is ready for use.

## 4 Using MUM

### 4.1 Connecting fixtures

MUM is only capable of talking to one fixture at a time (\*) - if more than one fixture is connected, the communication may not be reliable or fail entirely. Also make sure to terminate the serial link on the connected fixture.

MUM uses non-standard DMX commands for communication with fixtures so connecting other types of fixtures than the ones supported may cause these fixtures to react 'strangely'.

(\*) When connecting to fixtures that may communicate through an internal bus such as Martin Tripix or Martin Extube more than one fixture may be connected as long as they are of the same type and are connected through the internal bus only.

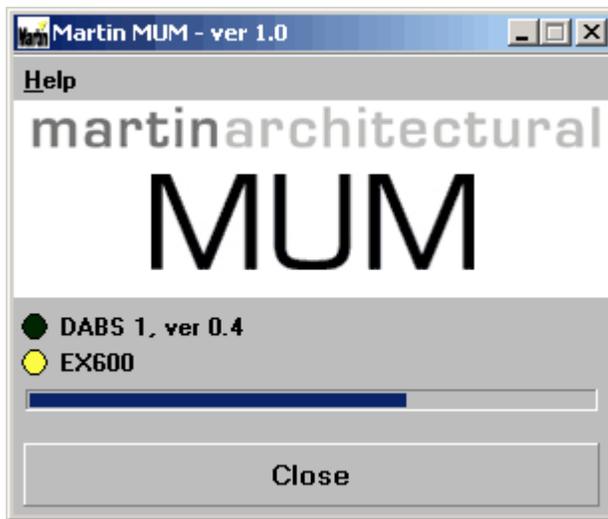
In this case a selector at the bottom of the page may be used to switch between the different fixtures.

### 4.2 Detecting fixtures

Once started, MUM will stay in 'standby' until a suitable fixture is detected. As soon as a fixture is detected, MUM will read some initial information from the fixture and then start the dialog specific for the fixture type.



*MUM in standby waiting for a fixture to be connected*



*Fixture detected - downloading fixture information*

## 4.3 MUM Functions

The fixture dialogs implemented in MUM reflects the capabilities of the individual fixture types. Functions available for one fixture type may not be available for another fixture type.

When editing functions the relevant values are read back from the fixture. MUM does not continuously read values back from the fixture and cannot be used to 'monitor' the fixture (use the refresh function to re-read all values from the fixture).

### Common functions

<a href="#">Reconnect</a>	Re-initializes fixture communication. Use this function to connect to a different fixture.
<a href="#">Refresh</a>	Refresh values by re-reading information from fixture.
<a href="#">Close</a>	Close the application.

### Optional functions

[File Menu](#)  
[Fixture Information tab](#)  
[Fixture Settings tab](#)  
[Stand-alone settings tab](#)  
[Stand-alone program tab](#)  
[Adjustment tab](#)  
[Monitor tab](#)

## 4.4 Optional Options, File Menu

Use functions in the file menu to backup and restore fixture memory and share stand-alone programs and copy stand-alone programs and settings between different fixtures of the same type.

### [Download and save fixture memory to file](#)

Download and save a copy of the fixture onboard memory to a file on the PC. After memory download there is the possibility to attach notes to the downloaded memory file for later identification. The downloaded memory file includes all fixture settings and stand-alone settings and program.

### [Upload stand-alone program and settings from file](#)

Upload stand-alone program and settings from memory file – this leaves other fixture settings intact.

[Upload fixture settings from file](#)

Upload all fixture settings to fixture – this leaves stand-alone settings and program intact.

[Upload fixture complete fixture memory from file](#)

Upload complete fixture memory from file.

Note 1: Not all fixtures implements all options above.

Note 2: Not all memory settings are overwritten by an upload. Individual fixture settings such as total lamp hours and calibration values are left intact after upload.

Note 3: it is not possible to share memory files between fixture types. There may also be restrictions on sharing memory files between different versions of fixture firmware.

[MUM Functions](#)

## 4.5 Optional functions, Fixture information

The **Fixture information** tab displays various types of information for the connected fixture, including current firmware version(s)

If the fixture implements a built in timer circuit and resetable timers these may be set or reset from here.

The tab also shows errors reported back by the fixture. Note that some fixtures may display errors during the electronics/mechanical reset phase until effects are properly reset (click **Refresh** to re-read values when the fixture has finished it's reset phase).

**MUM - Exterior 600 version 2.0+**

Files Help

Fixture info | Fixture settings | Stand-alone settings | Stand-alone program | Adjustment

**Fixture information**

Fixture: Exterior 600  
Main CPU: Version 1.7  
FixtureID: 020813400(1)

**Fixture status**

Lamp is OFF

Fixture real-time clock (HH:MM DD/MM/YY)  
0 : 0 1 / 1 / 0

Total Power-on hours 146	Reset	Resetable Power-on hours 85
Total Lamp-on hours 60	Reset	Resetable Lamp-on hours 2
Total Lamp Strikes 54	Reset	Resetable Lamp Strikes 28

**Fixture reports 3 errors**  
(1) CYER - Cyan Reset Error  
(2) YEER - Yellow Reset Error  
(3) COER - Color Wheel Reset Error

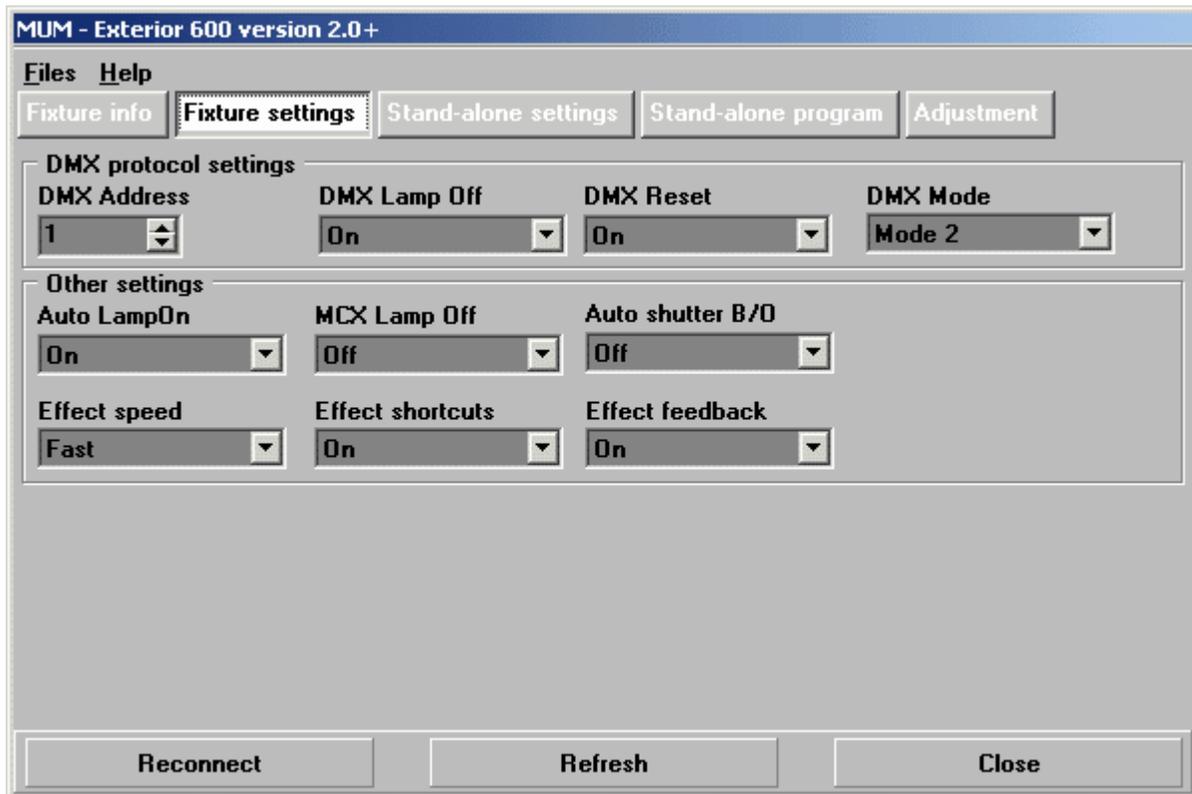
Reconnect Refresh Close

Fixture Information tab for Exterior 600, displaying errors

[MUM Functions](#)

## 4.6 Optional functions, Fixture settings

The **Fixture settings** tab displays settings for the fixture that are generally associated with running the fixture under DMX control. Values such as DMX address, DMX mode or other control related settings may be set from this location.



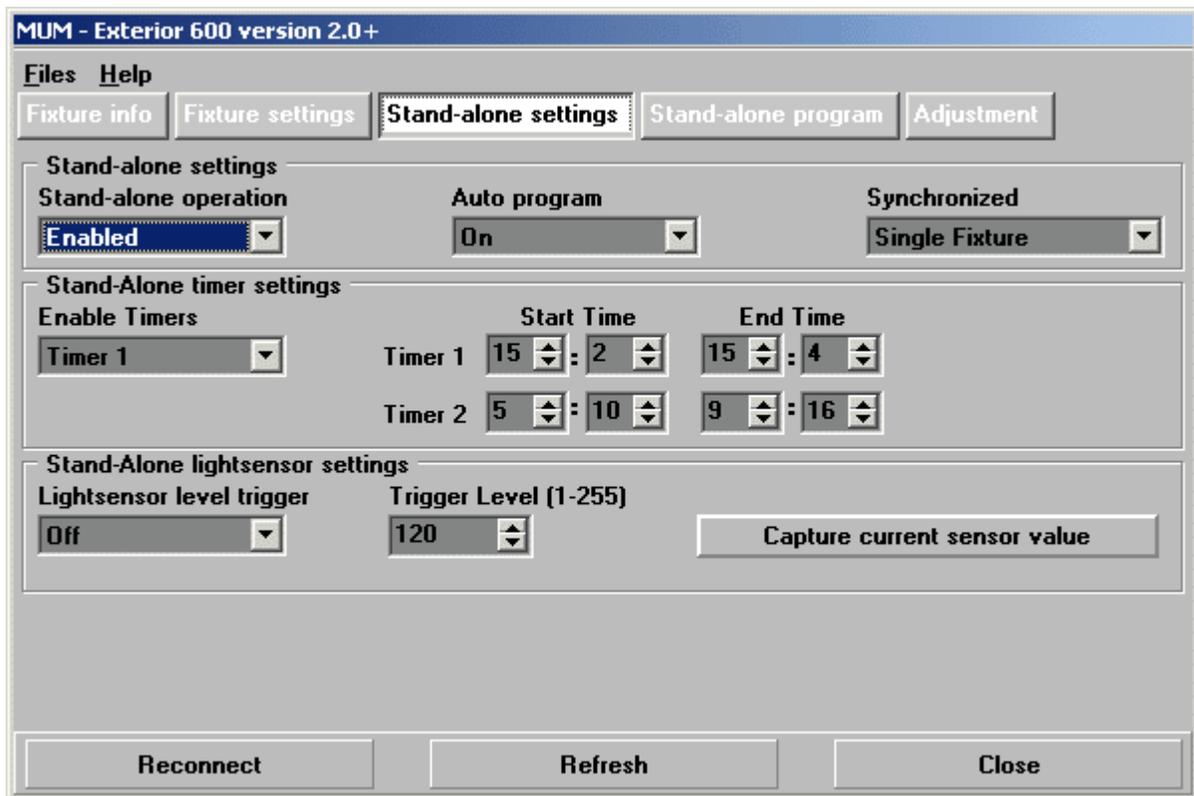
*Fixture settings tab for Exterior 600*

[MUM Functions](#)

## 4.7 Optional functions, Stand-alone settings

The **Stand-alone settings** tab is used to display and edit various settings that are associated with the fixtures running in stand-alone mode as opposed to being controlled from a DMX console. Please refer to fixture manual for more information on the individual fixture types stand-alone capabilities.

Note: The stand-alone program itself is programmed from the [Stand-alone program](#) tab.

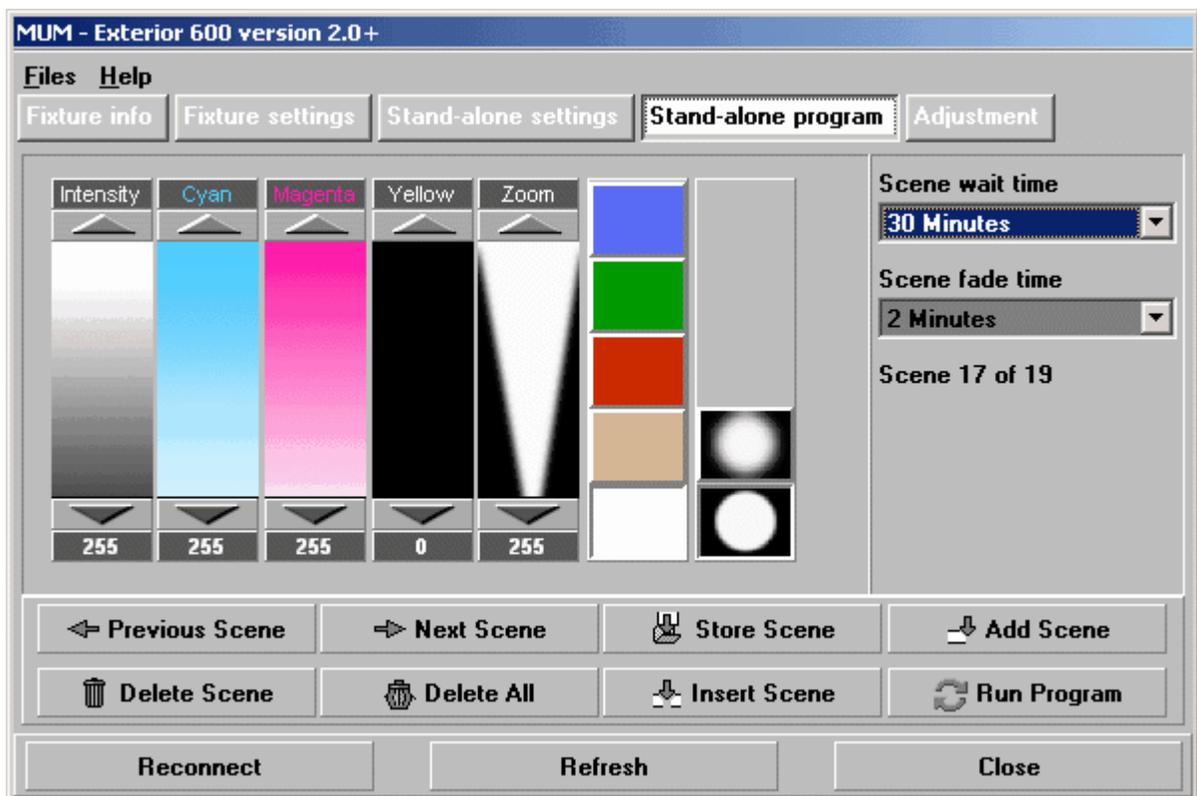


Stand-alone settings tab for Exterior 600

### [MUM Functions](#)

## 4.8 Optional functions, stand-alone program

The **Stand-alone program** tab is used to program the fixtures stand-alone program, which is stored in the fixtures own memory. Please refer to the fixture manual for more detailed information on the fixtures stand-alone capabilities.

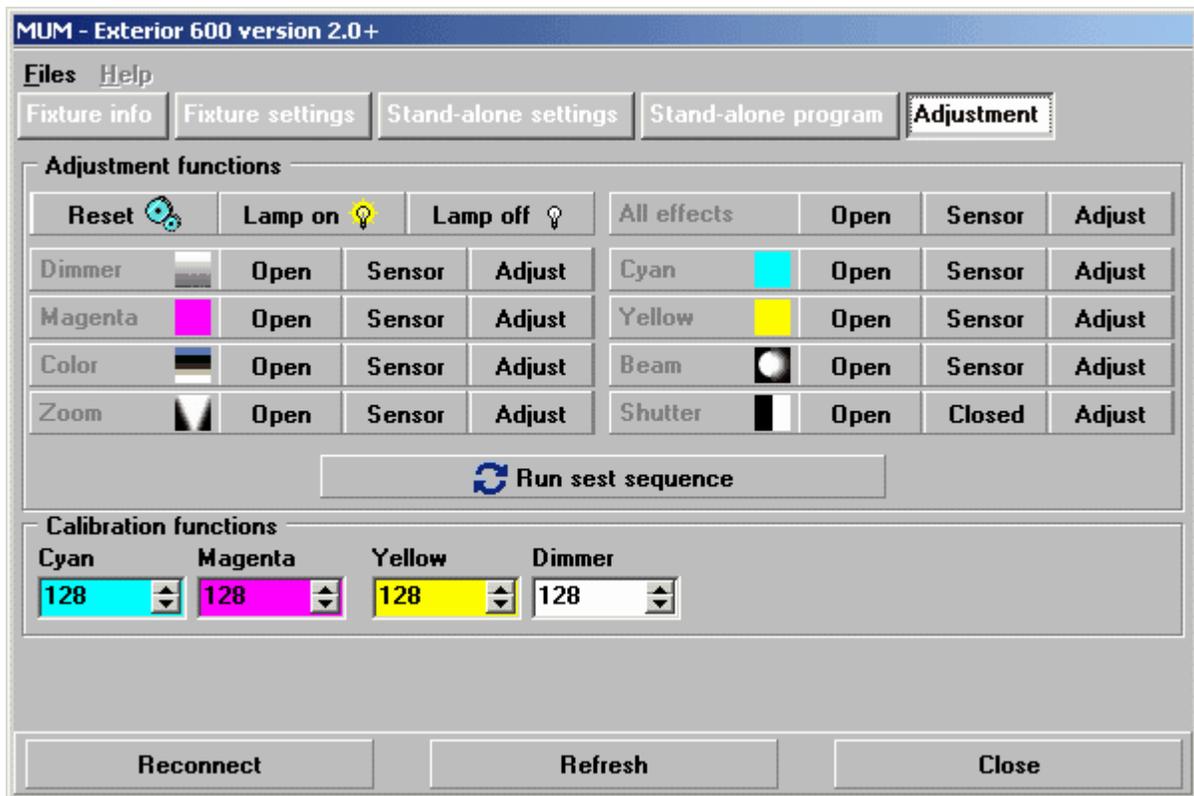


Stand-alone programming tab for Exterior 600

### [MUM Functions](#)

## 4.9 Optional functions, adjustment

The **Adjustment** tab may be used to perform actions associated with mechanical fixture adjustments. The tab also has controls for onboard fixture calibration for those fixtures that implement this feature.



Adjustment tab for Exterior 600

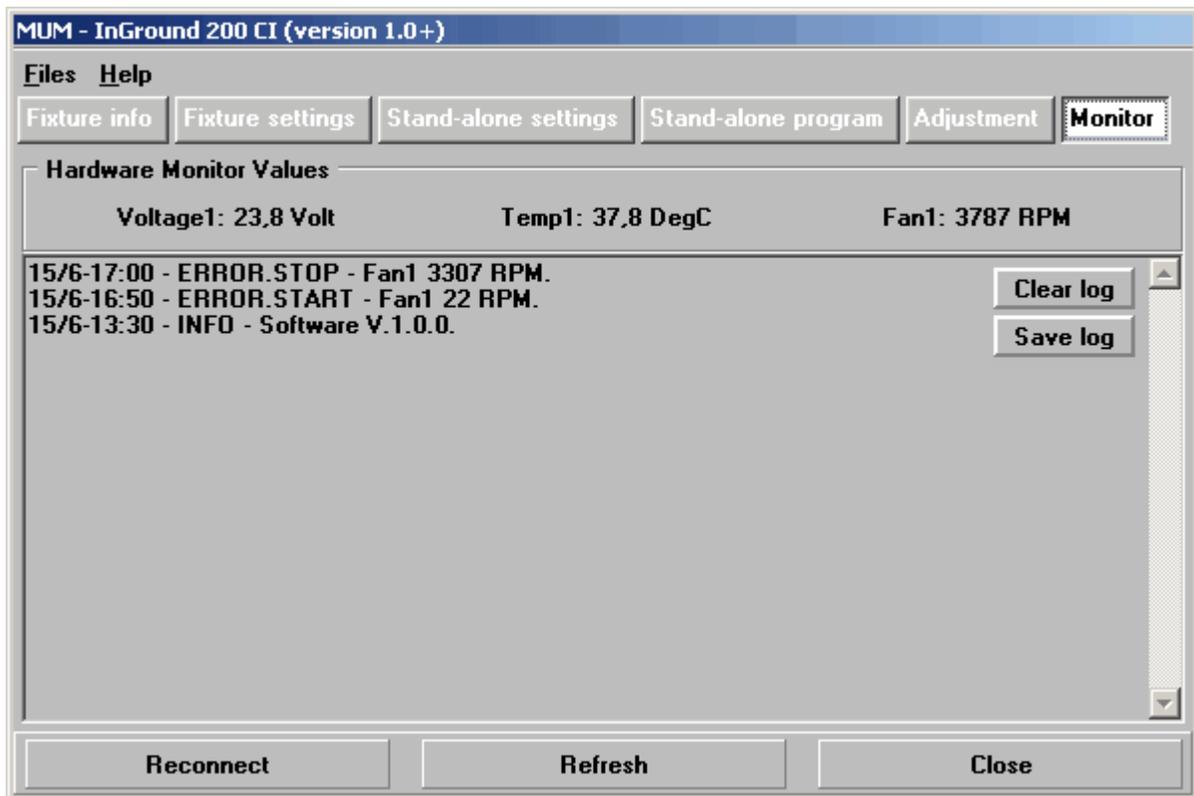
### [MUM Functions](#)

## 4.10 Optional functions, Monitor

The **Monitor** tab may be used to monitor values from the fixture in real time as well as a message log stored within the fixture itself.

The option is only available for certain fixtures.

The lower window shows the message log, click **Clear log** to clear the log stored within the fixture.



## 5 Notes

### 5.1 Hints & Tips

The USB DABS 1 interface required for MUM may also be used as fixture firmware upload device in the Martin Uploader application (version 5.4 or higher).

### 5.2 Trouble shooting

The two-way communication between MUM and fixture will not work over a standard DMX opto-splitter/buffer that is designed for one-way communication only.

MUM communication with fixtures *may* not work reliably or at all if more than one fixture is connected - always connect one fixture only and terminate the link.

Certain PC/Windows power saving settings *may* cause the DABS 1 interface to cease functioning. If there are difficulties getting DABS 1 to detect or work properly please disable as many power saving settings as possible including system hibernation.