

Graham's MIDI-2-DMX Utility

Installation

Simply run the setup file to install the application. If you do not have Microsoft .NET Framework v4.6.1 installed, the setup file will tell you and should prompt you to download and install it first.

Once installed, a new desktop icon will appear:



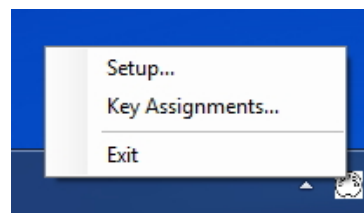
Double-click this to launch the program, which runs in the system tray:



Note: Should the program detect that no MIDI interfaces are present, a warning message is displayed and the program quits.

Program Configuration

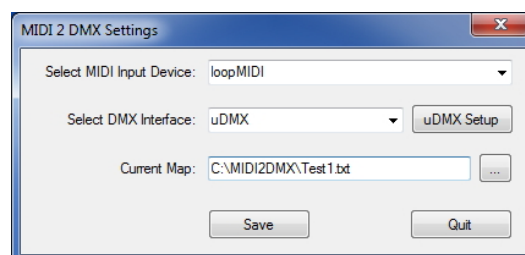
To set up the program's various parameters, right click on the icon in the system tray. This will display a context menu with two options:



Setup – Allows the user to define the MIDI interface to use for input, the DMX interface to use for output and a mapping file to load. Each function is described below.

Key Assignments – Allows the user to assign one or more DMX channels to any of the 127 MIDI notes

The Setup Dialog



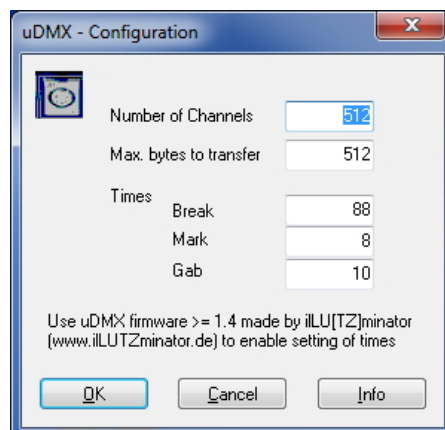
Launching this dialog provides selection boxes to choose the MIDI input to use and the DMX interface to use for output.

BIG NOTE: At this time, the only DMX interface driver supported is the so-called “uDMX” driver which works with the Lixada (and, I suspect, other) generic USB-DMX interface adapters.



This is the piece of hardware that I have and therefore the only one I have been able to test the program with. If anyone would care to assist with code/drivers to talk to other interfaces (or even donate one to help me test the code), that would be great!

When the uDMX driver is selected, the ‘uDMX Setup’ button becomes enabled. This allows the user to access the built-in parameters of the interface via a dialog presented by the driver itself

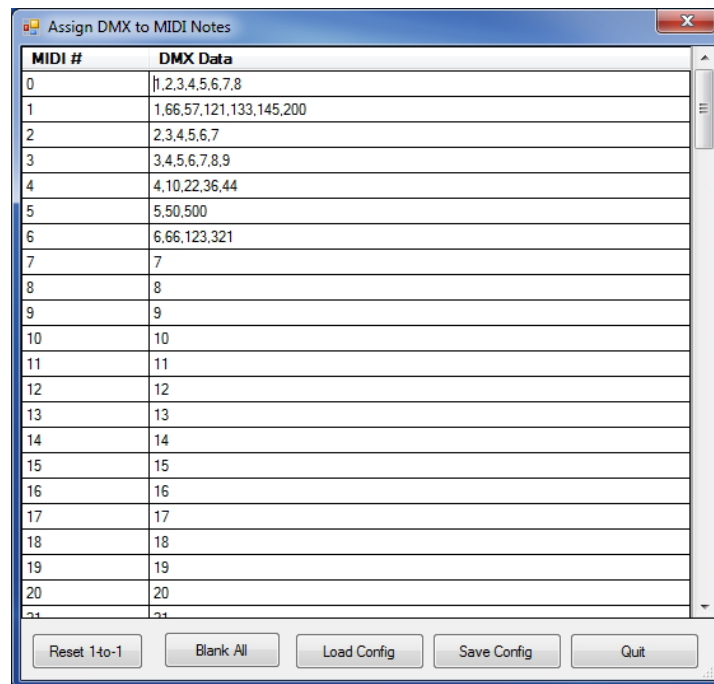


I have not found any reason to change anything in this dialog, but if you experience delays and don't use the full 512 channels, you might want to reduce the number of channels to a more realistic level as the system will send data to all channels even if you are not using them (that's at the driver level, my program does not do this)

Finally, on the setup dialog, there is an option to load a given mapping file (see below) that is loaded when the program starts.

Any changes to the settings are saved by clicking the 'Save' button, or the user can close the dialog without saving changes by clicking 'Quit'

The Key Assignments Dialog



This dialog is where the hard work of configuration is done. For each MIDI note number from 0 (C-2) through to 127 (G8), the user can assign zero or more DMX channels. Note assignments that require more than one DMX channel must be written in a comma delimited form such as “1,2,3”. Do not use any other delimiter as the program will not recognise it and will most likely crash.

Channels can be duplicated across keys (as in the example above where DMX channel 3 is assigned to MIDI note 0, 2 and 3) and any DMX channel up to 512 can be assigned.

Maybe a later version might look at how to send data across universes (if the chosen DMX interface supports it) but for now, one is enough.

To save a configuration, the application creates a text file, known here as a map file by clicking on the ‘Save Config’ button. Conversely, an existing map file can be loaded using the ‘Load Config’ button.

Note: No error checking is done when loading files. If the user choses to load a text file containing the collected works of Shakespeare or something else that is not a valid map, the program will complain with an error and most likely crash.

Finally, to save typing, two additional buttons are presented.

- “Reset 1-to-1” – Sets the dialog such that MIDI Note 0 = DMX Channel 1, MIDI Note 1 = DMX Channel 2 and so on.
- “Blank All” – Does what it says on the tin, blanks all note-channel assignments so you can start from scratch

Operation

Once the program is set up and running with a valid map loaded, the user simply presses a key (or sends a Note ON message from a sequencer) to illuminate a fixture or do some other function associated with the mapped DMX channel. Releasing the key or sending Note OFF will return that DMX channel to 0.... As Aleksander the Meerkat says.... "Simples!"

Note: Currently, the program does not respond to Control Change, Aftertouch or any other MIDI message types but future version might if there is enough call for it.

Feedback

Please feel free to drop me a line at NOSPAMgraham.lemonNO@SPAMoutlook.comNOSPAM (removing the obvious spam killer text) if you have any suggestions, bug reports or offers of assistance with other DMX interface programming as mentioned above.

Enjoy!

Appendix – MIDI Note Numbers and their respective keys on the keyboard

Octave	Note Numbers											
	C	C#	D	D#	E	F	F#	G	G#	A	A#	B
-2	0	1	2	3	4	5	6	7	8	9	10	11
-1	12	13	14	15	16	17	18	19	20	21	22	23
0	24	25	26	27	28	29	30	31	32	33	34	35
1	36	37	38	39	40	41	42	43	44	45	46	47
2	48	49	50	51	52	53	54	55	56	57	58	59
3	60	61	62	63	64	65	66	67	68	69	70	71
4	72	73	74	75	76	77	78	79	80	81	82	83
5	84	85	86	87	88	89	90	91	92	93	94	95
6	96	97	98	99	100	101	102	103	104	105	106	107
7	108	109	110	111	112	113	114	115	116	117	118	119
8	120	121	122	123	124	125	126	127				