

Disclaimer

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Preamble

Purpose: The purpose of this text is to introduce the reader to the way in which Midi WorkShop displays MIDI data using a specific colour scheme.

Previous experience: This text assumes that the reader has subsequently perused the available documentation on Midi WorkShop – in particular, those sections that pertain to the Controller Data Editing.

Assets: No assets are required.

Introduction

Midi WorkShop has a rather unique method for the way in which MIDI data is both viewed and managed.

As with other RML labs software applications, Midi WorkShop is *unconventional*. However, such unconventionality should not be construed as being unconventional in actual usage. As you will discover, the exact opposite is true!

The Controller Filter Light Dialog

To make this dialog active, the Controller Display Light must first be enabled. Once enabled, the Controller Filter can then be enabled.



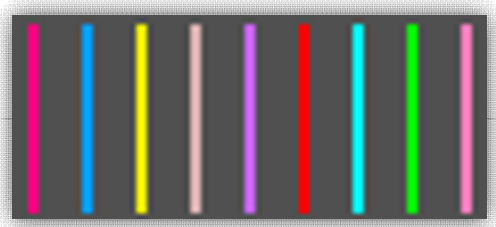
Invoking a context menu via the Controller Filter Light displays a menu of all of the available filter-able data types – some *one-hundred and thirty-six*...to be exact...

Ctrl-0: Bank Select MSB	Ctrl-32: Controller 0 LSB	Ctrl-64: Sustain	Ctrl-96: Data Increment	Poly Key Pressure
Ctrl-1: Modulation	Ctrl-33: Controller 1 LSB	Ctrl-65: Portamento On/Off	Ctrl-97: Data Decrement	Program Change
Ctrl-2: Breath	Ctrl-34: Controller 2 LSB	Ctrl-66: Sostenuto On/Off	Ctrl-98: NRPN LSB	Channel Pressure
Ctrl-3: Controller 3	Ctrl-35: Controller 3 LSB	Ctrl-67: Soft Pedal	Ctrl-99: NRPN MSB	Pitch Bend
Ctrl-4: Foot	Ctrl-36: Controller 4 LSB	Ctrl-68: Legato FootSw	Ctrl-100: RPN LSB	Note ON Velocity
Ctrl-5: Portamento Time	Ctrl-37: Controller 5 LSB	Ctrl-69: Hold 2 On/Off	Ctrl-101: RPN MSB	Note OFF Velocity
Ctrl-6: Data Entry MSB	Ctrl-38: Controller 6 LSB	Ctrl-70: Sound Variation	Ctrl-102: Controller 102	Tempo / TimeSig
Ctrl-7: Main Volume	Ctrl-39: Controller 7 LSB	Ctrl-71: Harmonic Content	Ctrl-103: Controller 103	▼ Last Active Entry
Ctrl-8: Balance	Ctrl-40: Controller 8 LSB	Ctrl-72: Release Time	Ctrl-104: Controller 104	
Ctrl-9: Controller 9	Ctrl-41: Controller 9 LSB	Ctrl-73: Attack Time	Ctrl-105: Controller 105	
Ctrl-10: Pan	Ctrl-42: Controller 10 LSB	Ctrl-74: Brightness	Ctrl-106: Controller 106	
Ctrl-11: Expression	Ctrl-43: Controller 11 LSB	Ctrl-75: Controller 75	Ctrl-107: Controller 107	
Ctrl-12: Effect 1	Ctrl-44: Controller 12 LSB	Ctrl-76: Controller 76	Ctrl-108: Controller 108	
Ctrl-13: Effect 2	Ctrl-45: Controller 13 LSB	Ctrl-77: Controller 77	Ctrl-109: Controller 109	
Ctrl-14: Controller 14	Ctrl-46: Controller 14 LSB	Ctrl-78: Controller 78	Ctrl-110: Controller 110	
Ctrl-15: Controller 15	Ctrl-47: Controller 15 LSB	Ctrl-79: Controller 79	Ctrl-111: Controller 111	
Ctrl-16: General Purpose 1	Ctrl-48: Controller 16 LSB	Ctrl-80: General Purpose 5	Ctrl-112: Controller 112	
Ctrl-17: General Purpose 2	Ctrl-49: Controller 17 LSB	Ctrl-81: General Purpose 6	Ctrl-113: Controller 113	
Ctrl-18: General Purpose 3	Ctrl-50: Controller 18 LSB	Ctrl-82: General Purpose 7	Ctrl-114: Controller 114	
Ctrl-19: General Purpose 4	Ctrl-51: Controller 19 LSB	Ctrl-83: General Purpose 8	Ctrl-115: Controller 115	
Ctrl-20: Controller 20	Ctrl-52: Controller 20 LSB	Ctrl-84: Controller 84	Ctrl-116: Controller 116	
Ctrl-21: Controller 21	Ctrl-53: Controller 21 LSB	Ctrl-85: Controller 85	Ctrl-117: Controller 117	
Ctrl-22: Controller 22	Ctrl-54: Controller 22 LSB	Ctrl-86: Controller 86	Ctrl-118: Controller 118	
Ctrl-23: Controller 23	Ctrl-55: Controller 23 LSB	Ctrl-87: Controller 87	Ctrl-119: Controller 119	
Ctrl-24: Controller 24	Ctrl-56: Controller 24 LSB	Ctrl-88: Controller 88	Ctrl-120: Controller 120	
Ctrl-25: Controller 25	Ctrl-57: Controller 25 LSB	Ctrl-89: Controller 89	Ctrl-121: Reset All Controllers	
Ctrl-26: Controller 26	Ctrl-58: Controller 26 LSB	Ctrl-90: Controller 90	Ctrl-122: Local On/Off	
Ctrl-27: Controller 27	Ctrl-59: Controller 27 LSB	Ctrl-91: Ext Effects Depth	Ctrl-123: All Notes Off	
Ctrl-28: Controller 28	Ctrl-60: Controller 28 LSB	Ctrl-92: Tremolo Depth	Ctrl-124: Omni Mode Off	
Ctrl-29: Controller 29	Ctrl-61: Controller 29 LSB	Ctrl-93: Chorus Depth	Ctrl-125: Omni Mode On	
Ctrl-30: Controller 30	Ctrl-62: Controller 30 LSB	Ctrl-94: Celeste Detune Depth	Ctrl-126: Poly Mode Off	
Ctrl-31: Controller 31	Ctrl-63: Controller 31 LSB	Ctrl-95: Phaser Depth	Ctrl-127: Poly Mode On	

In particular, the first 128 data type values are the defined MIDI Controller types. The last column provides a list of seven other specific non-note data types that will be of interest. Selecting an option from the listing will enable the filter for that particular data type

The Controller Data Colours

As can be seen, there are *a total of nine colours* allocated to each of the various data types:



Controller Data Colours Listing

Following, is a listing of all of the available data types and their assigned colours:

Ctrl-#	Controller Name	RGB	Colour	Ctrl-#	Name	RGB	Colour
0	Bank Select MSB	255,128,192	Pink	N/A	Poly Key Pressure	N/A	N/A
1	Modulation	255,128,192	Pink	N/A	Program Change	255,0,0	Red
2	Breath	255,128,192	Pink	N/A	Channel Pressure	255,0,140	Magenta
3	Undefined	255,128,192	Pink	N/A	Pitch Bend	202,102,255	Purple
4	Foot	255,128,192	Pink	N/A	Note ON Velocity	0,255,0	Green
5	Portamento Time	255,128,192	Pink	N/A	Note OFF Velocity	0,255,0	Green
6	Data Entry MSB	255,128,192	Pink	N/A	TimeSig	255,0,128	Dark Pink
7	Main Volume	240,240,0	Yellow	N/A	Tempo	0,160,255	Blue
8	Balance	255,128,192	Pink	N/A	Last Active Entry		
9	Undefined	255,128,192	Pink				
10	Pan	220,180,180	Light Pink				
11	Expression	255,128,192	Pink				
12	Effect 1	255,128,192	Pink				
13	Effect 2	255,128,192	Pink				
14-15	Undefined	255,128,192	Pink				
16-19	General Purpose 1-4	255,128,192	Pink				
20-31	Undefined	255,128,192	Pink				
32-63	Controller 0-31 LSB	255,128,192	Pink				
64	Sustain	0,255,255	Light Blue				
65	Portamento On/Off	255,128,192	Pink				
66	Sostenuto On/Off	255,128,192	Pink				
67	Soft Pedal	255,128,192	Pink				
68	Legato Footsw	255,128,192	Pink				
69	Hold 2 On/Off	255,128,192	Pink				
70	Sound Variation	255,128,192	Pink				
71	Harmonic Content	255,128,192	Pink				
72	Release Time	255,128,192	Pink				
73	Attack Time	255,128,192	Pink				
74	Brightness	255,128,192	Pink				
75-79	Undefined	255,128,192	Pink				
80-83	General Purpose 5-8	255,128,192	Pink				
84-90	Undefined	255,128,192	Pink				
91	Ext Effects Depth	255,128,192	Pink				
92	Tremolo Depth	255,128,192	Pink				
93	Chorus Depth	255,128,192	Pink				
94	Celeste Detune Depth	255,128,192	Pink				
95	Phaser Depth	255,128,192	Pink				
96	Data Increment	255,128,192	Pink				
97	Data Decrement	255,128,192	Pink				
98	NRPN LSB	255,128,192	Pink				
99	NRPN MSB	255,128,192	Pink				
100	RPN LSB	255,128,192	Pink				
101	RPN MSB	255,128,192	Pink				
102-120	Undefined	255,128,192	Pink				
121	Reset All Controllers	255,128,192	Pink				
122	Local On/Off	255,128,192	Pink				
123	All Notes Off	255,128,192	Pink				
124	Omni Mode Off	255,128,192	Pink				
125	Omni Mode On	255,128,192	Pink				
126	Poly Mode Off	255,128,192	Pink				
127	Poly Mode On	255,128,192	Pink				

Observations

Of the nine colours...

- The colour "pink" has been allocated to what I would refer to as the "*Midi-specific*" parameters
- Six of the colours appear to allocated to what I would refer to as the "*Orchestration-specific*" parameters
- Two of the colours appear to allocated to what I would refer to as the "*Fixed-specific*" parameters

About the "*Midi-specific*" Data Types

The "*Midi-specific*" data types would consist of the following:

- Main Volume
- Pan
- Sustain
- Note ON Velocity
- Note OFF Velocity
- TimeSig
- Tempo
- Program Change
- Bank Select MSB
- Controller 0-31 LSB

About the "*Orchestration-specific*" Data Types

The "*Orchestration-specific*" data types would consist of the following:

- Main Volume
- Pan
- Sustain
- Note ON Velocity
- Note OFF Velocity

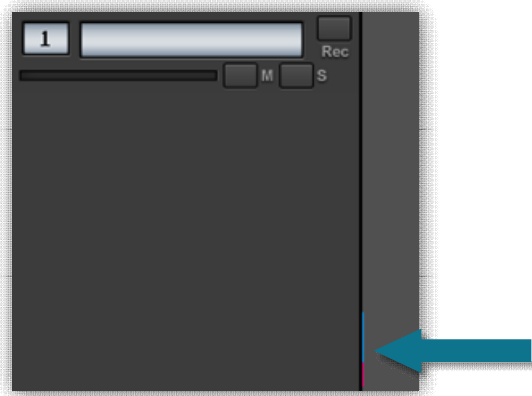
About the "*Fixed-specific*" Data Types

The "*Fixed-specific*" data types would consist of the following:

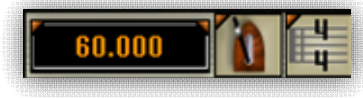
- TimeSig
- Tempo

Observations

As can be seen in the following image, the TimeSig – in Dark Pink, and Tempo – in Blue, will always be located at the very beginning of the track – thus the use of the term "fixed"...



This *fixed location* would indeed be appropriate in that the time signature and the initial tempo would always be located at the very beginning of a piece.



About the Program Change/Patch Change Data Types

The Program Change/Patch Change data types would consist of the following:

- Program Change
- Bank Select MSB
- Controller 0-31 LSB

In closing...

For those that work with Midi data within Midi WorkShop should find the above information of some practicable use...I know that I most certainly have.

As always, it is with the sincerest hope that some will find the above information of some practicable use.

Sincerely,

A handwritten signature in black ink, appearing to be 'Duke L'.

Date: September 24, 2021

Update: February 11, 2022, January 11, 2024

Resources and References

N/A