

Glossary

Channel. There are two types of data in a MIDI system: channel and system. Channel information, such as note-on events, pitch-bends, and after-touch etc., always has a channel number associated with it. This permits a MIDI device to route information within a single cable to multiple components. For example, a synth can receive a note-on event intended to sound like a piano and a note-on event for a trumpet and manage not to confuse the two. The MIDI standard allows for 16 channels per MIDI cable. The Macintosh has two serial ports which allows two cables or 32 channels.

Omni On. A control button on a Device file can send a MIDI message called "Omni On." When set to Omni On and instrument will try to respond to all messages it receives (via MIDI In) without regard to channel number. All messages the instrument transmits (via MIDI Out) will be assigned to one channel. Any instrument not capable of channel assignment must be set to channel 1, otherwise, assignment can be to any of the 16 MIDI channels.

Omni Off. A control button on a Device file can send a MIDI message called "Omni Off." When set to Omni Off, the instrument can be assigned to a specific MIDI channel. It will respond only to messages on the assigned channel(s), ignoring messages on any other channel, and it will transmit voice messages on the assigned channel(s). It is common practice to assign both receive and transmit channels to the same number, but an instrument may, in fact, transmit and receive on different channels.

Poly On. A control button on a Device file can send a MIDI message called "Poly On." When set to Poly On, the instrument assigns incoming Channel Voice messages to its internal voices polyphonically. This makes it possible to transmit and receive more than one note at a time (chords) on a single MIDI channel.

Polyphonic. Polyphonic refers to the ability to process more than one note at a time. Most synthesizers are polyphonic in that they receive, generate and perform more than one note at a time. A chord is a simple example of a polyphonic message although true polyphony allows independent voices.

Program Change. A Program Change is a MIDI message sent to a MIDI device. A number between 0 and 127 specifies the program to be changed to or "selected." For a synth this message is used to remotely switch the sound obtained from a bank of n types where n must be less than 127. A Bank Select message can augment the selection by allowing the selection of multiple banks of up to 127 sounds. Note that some MIDI devices display 1 through 128 as program numbers.

Anthem can embed program changes in sequences and create program change anywhere in scores. An Anthem Device file automatically generates program changes when selecting voices within a bank. Copying a Device file's patch name to a score also copies program change information to a score.

System-exclusive. MIDI is an open-ended protocol for the transmission of music digital information. System-exclusive is a data type within the protocol that allows the creation of messages specifically designed for a particular MIDI device. The details of the message are exclusive to the particular device. A System-exclusive message always starts with the status byte of (\$F0) and ends with the status byte (\$F7). After the beginning status byte which identifies the message as System-exclusive, the message starts with a unique ID for the MIDI device. MIDI devices which do not have this ID will ignore the message.

Voice. Voice is used in this manual to mean one of two independent lines that can exist in each staff of a score. Before entering notes into a score, select the voice by clicking on one of the triangles in the status pane on the left. Stem directions will automatically be modified as appropriate for a two voice staff. If you need more than two voices for a staff, simply create another staff with the same channel.