MIDI Specifications

The MIDI Protocol constists of a package list, that normally contains one or more packages. Each Package contains (depending on it's message type) 2 or 3 bytes.

The *First Byte* is called the **Status Byte** because it's defining the Event (eg NOTE_ON or CONTROLLER) and the channel on which this event occurs. The first byte is always set, if it's a status byte. If the first byte is zero, it's a data byte:

The *Second Byte* is called the **Data Byte** because it contains the Data (wow!)

The *Third Byte* is optional (depending on the event type) and contains another value, eg. for Controllers the (most important) value!

Here's an Example:
1st Byte 144 (0x90): NOTE_ON on Channel 0 (Channel 1 would be 0x91)
2nd Byte 65 (0x40): A Note
3rd Byte 100 (0x64): Velocity 100

If you want to send this message with MIOS (programmed in C) it would look like this:

```
MIOS_MIDI_BeginStream();
  MIOS_MIDI_TxBufferPut(0x90);
  MIOS_MIDI_TxBufferPut(0x40);
  MIOS_MIDI_TxBufferPut(0x64);
MIOS_MIDI_EndStream();
```

More informations can be found online:

- MIDI Technical Fanatic's Brainwashing Center must-read!
- Jglatt's Technical MIDI Specs Page

- MIDI Introduction & Tutorial from midi.org
- Official MIDI Specifications Index from the MIDI Manufacturer's Association
  - Table 1: MIDI 1.0 Specification Message Summary
  - Table 2: Expanded Messages List (Status Bytes)
  - Table 3: Summary of Control Change Messages (Data Bytes)

- Excellent Article Summary and many Links at answers.com
- ASCII Conversion Table