mvme2 test version

Windows USB drivers

libusb-win32 is needed for VM_USB connectivity. The driver is included in the archive. To install the driver run *libusb-win32-bin-1.2.6.0/bin/inf-wizard.exe* to create and install the filter driver for your VM_USB. The VM_USB should now show up under "libusb-win32 devices" in the Windows device manager.

Listfile format

The listfile is divided into sections of different types. The first sections (at least one) in a listfile are of type "Config" and contain the experiment configuration that was used to produce the listfile encoded as a JSON string.

The following sections of type "Event" contain the actual event data.

The last section of a listfile is an empty section of type "End".

All header words and module data words are 32-bit aligned in little endian byte order. 16-bit module data is zero-padded to fill a 32-bit word.

Listfile Structure:

```
Config Section Header
    JSON encoded config file contents

Optional additional config sections

Event Section Header, contains event type id
    Subevent Header 0, contains the module type
        Module Contents
    EndMarker

    Subevent Header 1, contains the module type
        Module Contents
    EndMarker

EndMarker (marks the end of the Event section)

Additional Event Sections
...

End Section
```

Currently defined section types:

- SectionType_Config = 0
- SectionType_Event = 1
- SectionType_End = 2

Section Header Word:

```
+----- Section Header Word ------+
|33222222222211111111110000000000|
|10987654321098765432109876543210|
+--------------------------------+
|ttt          eeeesssssssssssssss|
+--------------------------------+


t =  3 bit Section type
e =  4 bit Event type (== event number/index) for event sections.
          Use this to look up the EventConfig in the config section.
s = 16 bit Size in units of 32 bit words (fillwords added to data if needed)
          -> 256k section max size
          Section size is the number of following 32 bit words not including
          the header word itself.
```

Sections with SectionType_Event contain subevents with the following header:

Subevent Header Word:

```
+------- Subevent Header --------+
|33222222222211111111110000000000|
|10987654321098765432109876543210|
+--------------------------------+
|              mmmmmm  ssssssssss|
+--------------------------------+


m =  6 bit module type (VMEModuleType enum from globals.h)
s = 10 bit size in units of 32 bit words
```

Currently defined module types:

- MADC32 = 1
- MQDC32 = 2
- MTDC32 = 3
- MDPP16 = 4
- MDPP32 = 5
- MDI2 = 6
- Generic = 48

The last word of event and subevent sections is the EndMarker (0x87654321).