The communication uses a RS232 interface which is attached to the pc via a virtual communication port chip (MCP2200). The settings are 8N1 with 57600 Baud.

Information transfer between the computer and the ConFLiCT is organized in carriages. Each carriage contains an data/ask identifier, an unique ID, an index and the value itself.

Each carriage can hold only one value, this make it very flexible.

When you (the pc or ConFLiCT) want to transmit some information, just send a data carriage at any time you want. If you need some data now, you can ask the other side about this via sending a ask carriage. The other side should answer quickly with the corresponding data carriage. Normally both sides should send changing values (like the temperatures or the CPU usage) automatically in periodical time intervals. For configuration data (for GUI initialization for example) you have to ask.

You can ask about one specific data by send a ask carriage with an valid ID and a index. Or you can ask for all data of an ID by specify only the ID and set the number to 0 in the ask carriage. Now you get data carriages for all numbers of the ID. If you want to know everything you can set the ID to 00, now you get all valid data carriages from the other side. Be careful with that, because this cause heavy load on the ConFLiCT!

A carriage has the following format and uses only the ASCII numbers (0-9), ‘#’ (0x23) and the carriage return code as end identifier.

DA#ID#index#value#<CR>

**DA:** Possible values are 0 or 1 (one digit).A 0 means carriage contains data, 1 means carriage asks for data. An ask is answered by the other side with the correspondent data carriage, except the other side haven’t this information. For example, it doesn’t make any sense to ask the ConFLiCT about the CPU clock from the CPU on the motherboard. But of course the ConFLiCT can ask the PC about that.

**ID:** Possible values are 00 to 99, every time two digits! The unique ID is something like a variable- or more like an array-name, see the table too. The ID ‘00’ is special. It can only be used in combination with an ask. If you ask for the ID 00, you ask for everything. This is intended for initialization.

**index:** Possible values are 0-255 (1-3 digits). The index of the data, like an array index. 0 is reserved for asking about all elements of the ID (see example 4).

**data:** Possible values are 0-65535 (1-5 digits). It contains the value itself. Always set it to 0 when you’re send a ask carriage.

**<CR>:** The carriage return ASCII code, 13 as decimal or 0x0D in hexadecimal.

Examples:

1. 0#30#3#84#<CR> This carriage transmit the temperature (42.0 °C) of the third sensor.

2. 0#77#1#70#<CR> This carriage set the backlight brightness of the display to 70 %.

3. 1#61#2#0#<CR> Someone wants know the RPM of fan 2. This carriage should be answered like this for example:

0#61#2#1500#<CR>

4. 1#30#0#0#<CR> Now someone ask for all temperature values (index is 0). This should be answered with carriages like this:

0#30#1#44#<CR> Temperature one is 22.0 °C.

0#30#2#51#<CR> Temperature two is 25.5 °C.

0#30#3#62#<CR> Temperature three is 31.0 °C.

...

0#30#23#77#<CR> Temperature twenty-three is 38.5 °C.

0#30#24#88#<CR> Temperature twenty-four is 44.0 °C.

5. 1#00#0#0#<CR> The ask for everything. Should be answered with all available carriages. I don’t list they here ;-). Pay attention to the ‘00’ as ID!

When you do this you have to set the index and the data to 0 too.