intelHex is a simple tool for viewing intel-hex files.
It's written in Java and should therefore runs on all plattforms which supports java.
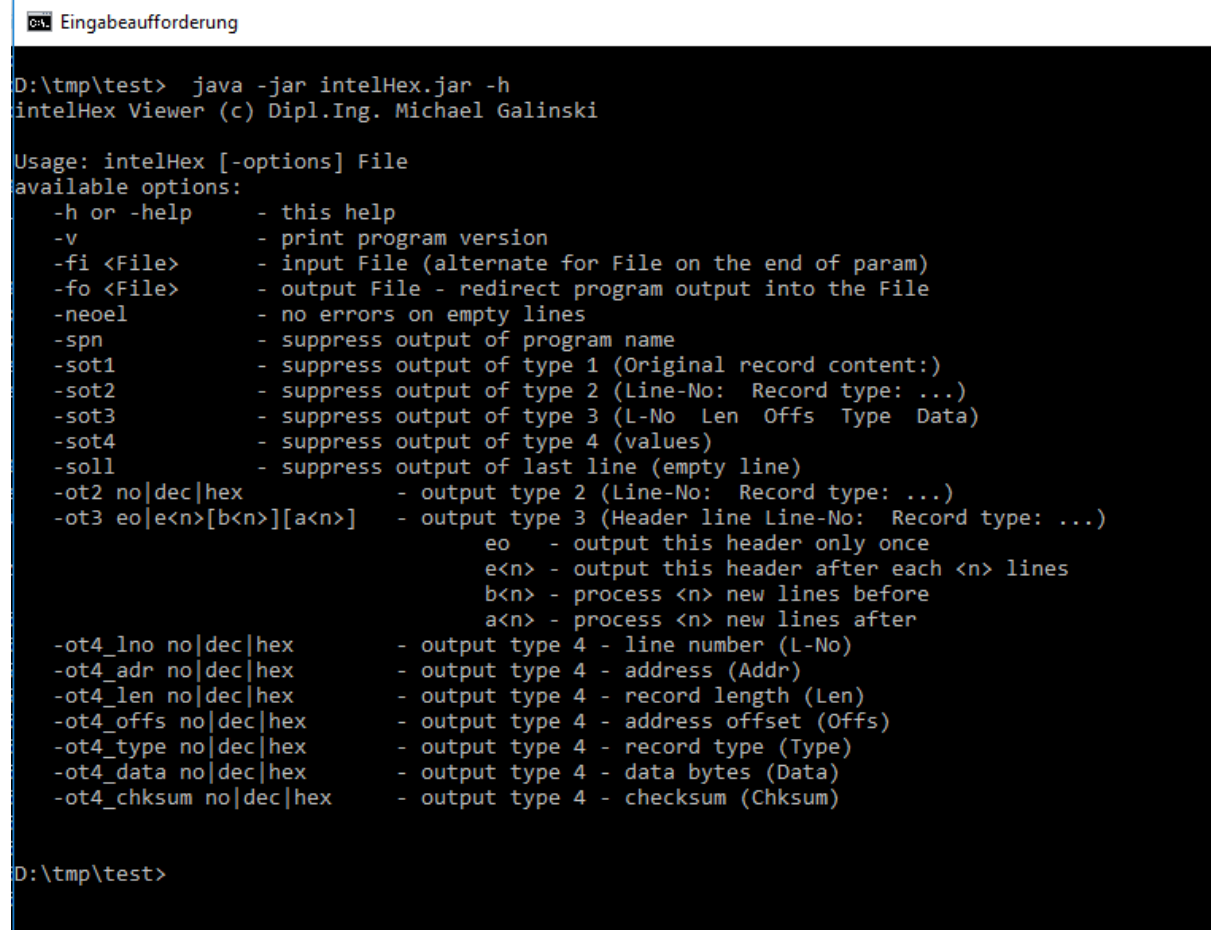intelHex viewer is free.

Usage (for version 1.0.0)
To run this tool you must have instaled java run time.
This tool is a little console program, so to start it invoke a console first.

From the command line enter:
  java -jar intelHex.jar -h
you can see the help text and all options allowed for this program.
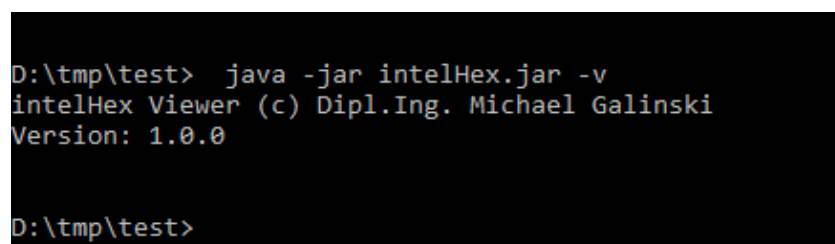
```
Eingabeaufforderung

D:\tmp\test>  java -jar intelHex.jar -h
intelHex Viewer (c) Dipl.Ing. Michael Galinski

Usage: intelHex [-options] File
available options:
   -h or -help      - this help
   -v               - print program version
   -fi <File>       - input File (alternate for File on the end of param)
   -fo <File>       - output File - redirect program output into the File
   -neoel           - no errors on empty lines
   -spn             - suppress output of program name
   -sot1            - suppress output of type 1 (Original record content:)
   -sot2            - suppress output of type 2 (Line-No:  Record type: ...)
   -sot3            - suppress output of type 3 (L-No  Len  Offs  Type  Data)
   -sot4            - suppress output of type 4 (values)
   -soll            - suppress output of last line (empty line)
   -ot2 no|dec|hex            - output type 2 (Line-No:  Record type: ...)
   -ot3 eo|e<n>[b<n>][a<n>]   - output type 3 (Header line Line-No:  Record type: ...)
                                   eo   - output this header only once
                                   e<n> - output this header after each <n> lines
                                   b<n> - process <n> new lines before
                                   a<n> - process <n> new lines after
   -ot4_lno no|dec|hex        - output type 4 - line number (L-No)
   -ot4_adr no|dec|hex        - output type 4 - address (Addr)
   -ot4_len no|dec|hex        - output type 4 - record length (Len)
   -ot4_offs no|dec|hex       - output type 4 - address offset (Offs)
   -ot4_type no|dec|hex       - output type 4 - record type (Type)
   -ot4_data no|dec|hex       - output type 4 - data bytes (Data)
   -ot4_chksum no|dec|hex     - output type 4 - checksum (Chksum)

D:\tmp\test>
```

to see the program version enter:
  java -jar intelHex.jar -v

```
D:\tmp\test>  java -jar intelHex.jar -v
intelHex Viewer (c) Dipl.Ing. Michael Galinski
Version: 1.0.0


D:\tmp\test>
```

to see all possible outputs from a given intel-hex file enter:
  java -jar intelHex.jar -fi <file>

where: <file> is the name of your intel-hex file

```
D:\tmp\test>  java -jar intelHex.jar -fi t1.hex
intelHex Viewer (c) Dipl.Ing. Michael Galinski

Original line content: :020000040800F2
|Line-No: 000001    |Record type: 04    - Ext. Lin.  |Address: 08000000     |Lenght: 02    |Bit format: 32-bit (I32HEX)
No      Addr         Len  Offs  Type  Chks  Data
1       08000000     02   0000  04    F2    08 00

Original line content: :10000000005000203D0600088D0600088D060008FF
|Line-No: 000002    |Record type: 00    - Data        |Address: 08000000     |Lenght: 10    |Bit format: 32-bit (I32HEX)
No      Addr         Len  Offs  Type  Chks  Data
2       08000000     10   0000  00    FF    00 50 00 20 3D 06 00 08 8D 06 00 08 8D 06 00 08

Original line content: :1001300010B5054C237833B9044B13B10448AFF321
|Line-No: 000003    |Record type: 00    - Data        |Address: 08000130     |Lenght: 10    |Bit format: 32-bit (I32HEX)
No      Addr         Len  Offs  Type  Chks  Data
3       08000130     10   0130  00    21    10 B5 05 4C 23 78 33 B9 04 4B 13 B1 04 48 AF F3

Original line content: :1001A00000AF8A4A894B9B6943F004039361884AF4
|Line-No: 000004    |Record type: 00    - Data        |Address: 080001a0     |Lenght: 10    |Bit format: 32-bit (I32HEX)
No      Addr         Len  Offs  Type  Chks  Data
4       080001a0     10   01a0  00    F4    00 AF 8A 4A 89 4B 9B 69 43 F0 04 03 93 61 88 4A

Original line content: :100230009B899BB243F00C039BB29381654A654B4B
|Line-No: 000005    |Record type: 00    - Data        |Address: 08000230     |Lenght: 10    |Bit format: 32-bit (I32HEX)
No      Addr         Len  Offs  Type  Chks  Data
5       08000230     10   0230  00    4B    9B 89 9B B2 43 F0 0C 03 9B B2 93 81 65 4A 65 4B
```

The program outputs 5 formatted lines for each intel-hex record.

You can switch off the output of each formatted line with the option -sot
to see only formatted line 1 switch off lines 2+3+4+5, enter:
  java -jar intelHex.jar -fi <file> -sot2 -sot3 -sot4 -soll

```
D:\tmp\test>  java -jar intelHex.jar -fi t1.hex -sot2 -sot3 -sot4 -soll
intelHex Viewer (c) Dipl.Ing. Michael Galinski

Original line content: :020000040800F2
Original line content: :10000000005000203D0600088D0600088D060008FF
Original line content: :1001300010B5054C237833B9044B13B10448AFF321
Original line content: :1001A00000AF8A4A894B9B6943F004039361884AF4
Original line content: :100230009B899BB243F00C039BB29381654A654B4B
Original line content: :1009580052656720524243435F434647523A203078F6
Original line content: :080968000000000000000002067
Original line content: :08097000E1060008550100083 2
Original line content: :04097800310100084 1
Original line content: :10097C0000000000000EC02002054030020BC03002007
Original line content: :10098C00000000000000000000000000000000005B
Original line content: :10099C0000000000000000000000000000000000004B
Original line content: :100A2C000E33CDAB34126DE6ECDE05000B0000008E
Original line content: :10CBC00000000000000000000000000000000000028
Original line content: :100D0C0000000000000000000000000000000000000D7
Original line content: :100D1C0000000000000000000000000000000000000C7
Original line content: :100D6C000000000000000000000000000000000000077
Original line content: :100D7C000000000000000000000000000000000000067
Original line content: :100D8C000000000000000000000000000000000000057
Original line content: :0C0D9C0000000000000000048040020DF
Original line content: :040000050800063DAC
Original line content: :00000001FF
```

The line 5 is only an empty line (last line). To switch it off use option -soll

java -jar intelHex.jar -fi <file> -sot2 -sot3 -sot4

```
D:\tmp\test>  java -jar intelHex.jar -fi t1.hex -sot2 -sot3 -sot4
intelHex Viewer (c) Dipl.Ing. Michael Galinski

Original line content: :020000040800F2

Original line content: :10000000005000203D0600088D0600088D060008FF

Original line content: :1001300010B5054C237833B9044B13B10448AFF321

Original line content: :1001A00000AF8A4A894B9B6943F004039361884AF4

Original line content: :100230009B899BB243F00C039BB29381654A654B4B

Original line content: :100958005265672052434 35F434647523A203078F6

Original line content: :080968000000000000002067

Original line content: :08097000E10600085501000832

Original line content: :040978003101000841

Original line content: :10097C0000000000EC02002054030020BC03002007

Original line content: :10098C00000000000000000000000000000000005B
```

to see only formatted line 2 enter:
java -jar intelHex.jar -fi <file> -sot1 -sot3 -sot4 -soll

```
D:\tmp\test>  java -jar intelHex.jar -fi t1.hex -sot1 -sot3 -sot4 -soll
intelHex Viewer (c) Dipl.Ing. Michael Galinski

|Line-No: 000001    |Record type: 04    - Ext. Lin.   |Address: 08000000    |Lenght: 02    |Bit format: 32-bit (I32HEX)
|Line-No: 000002    |Record type: 00    - Data        |Address: 08000000    |Lenght: 10    |Bit format: 32-bit (I32HEX)
|Line-No: 000003    |Record type: 00    - Data        |Address: 08000130    |Lenght: 10    |Bit format: 32-bit (I32HEX)
|Line-No: 000004    |Record type: 00    - Data        |Address: 080001a0    |Lenght: 10    |Bit format: 32-bit (I32HEX)
|Line-No: 000005    |Record type: 00    - Data        |Address: 08000230    |Lenght: 10    |Bit format: 32-bit (I32HEX)
|Line-No: 000006    |Record type: 00    - Data        |Address: 08000958    |Lenght: 10    |Bit format: 32-bit (I32HEX)
|Line-No: 000007    |Record type: 00    - Data        |Address: 08000968    |Lenght: 08    |Bit format: 32-bit (I32HEX)
|Line-No: 000008    |Record type: 00    - Data        |Address: 08000970    |Lenght: 08    |Bit format: 32-bit (I32HEX)
|Line-No: 000009    |Record type: 00    - Data        |Address: 08000978    |Lenght: 04    |Bit format: 32-bit (I32HEX)
|Line-No: 00000a    |Record type: 00    - Data        |Address: 0800097c    |Lenght: 10    |Bit format: 32-bit (I32HEX)
|Line-No: 00000b    |Record type: 00    - Data        |Address: 0800098c    |Lenght: 10    |Bit format: 32-bit (I32HEX)
|Line-No: 00000c    |Record type: 00    - Data        |Address: 0800099c    |Lenght: 10    |Bit format: 32-bit (I32HEX)
|Line-No: 00000d    |Record type: 00    - Data        |Address: 08000a2c    |Lenght: 10    |Bit format: 32-bit (I32HEX)
|Line-No: 00000e    |Record type: 00    - Data        |Address: 08000cbc    |Lenght: 10    |Bit format: 32-bit (I32HEX)
|Line-No: 00000f    |Record type: 00    - Data        |Address: 08000d0c    |Lenght: 10    |Bit format: 32-bit (I32HEX)
|Line-No: 000010    |Record type: 00    - Data        |Address: 08000d1c    |Lenght: 10    |Bit format: 32-bit (I32HEX)
|Line-No: 000011    |Record type: 00    - Data        |Address: 08000d6c    |Lenght: 10    |Bit format: 32-bit (I32HEX)
|Line-No: 000012    |Record type: 00    - Data        |Address: 08000d7c    |Lenght: 10    |Bit format: 32-bit (I32HEX)
|Line-No: 000013    |Record type: 00    - Data        |Address: 08000d8c    |Lenght: 10    |Bit format: 32-bit (I32HEX)
|Line-No: 000014    |Record type: 00    - Data        |Address: 08000d9c    |Lenght: 0C    |Bit format: 32-bit (I32HEX)
|Line-No: 000015    |Record type: 05    - Load EIP    |Address: 08000000    |Lenght: 04    |Bit format: 32-bit (I32HEX)
|Line-No: 000016    |Record type: 01    - EoF         |Address: 08000000    |Lenght: 00    |Bit format: 32-bit (I32HEX)

D:\tmp\test>
```

‚Line-No' is the line number for each line from your hex-file
‚Record type' is the intel-hex record type
‚Address' is the address of record
‚Length' is the record length
‚Bit format' is the address type (length) of record

You can control the output of formatted line 2 with the option -ot2 no|dec|hex
where: no - means no output of formatted line 2 – same as -sot2
  java -jar intelHex.jar -fi <file> -sot1 -sot3 -sot4 -soll -ot2 no

```
D:\tmp\test>  java -jar intelHex.jar -fi t1.hex -sot1 -sot3 -sot4 -soll -ot2 no
intelHex Viewer (c) Dipl.Ing. Michael Galinski


D:\tmp\test>
```

where: dec - means that all numbers are printed in decimal mode
  java -jar intelHex.jar -fi <file> -sot1 -sot3 -sot4 -soll -ot2 dec

```
D:\tmp\test>  java -jar intelHex.jar -fi t1.hex -sot1 -sot3 -sot4 -soll -ot2 dec
intelHex Viewer (c) Dipl.Ing. Michael Galinski

|Line-No: 1         |Record type: 4     - Ext. Lin.   |Address: 134217728   |Lenght: 2    |Bit format: 32-bit (I32HEX)
|Line-No: 2         |Record type: 0     - Data         |Address: 134217728   |Lenght: 16   |Bit format: 32-bit (I32HEX)
|Line-No: 3         |Record type: 0     - Data         |Address: 134218032   |Lenght: 16   |Bit format: 32-bit (I32HEX)
|Line-No: 4         |Record type: 0     - Data         |Address: 134218144   |Lenght: 16   |Bit format: 32-bit (I32HEX)
|Line-No: 5         |Record type: 0     - Data         |Address: 134218288   |Lenght: 16   |Bit format: 32-bit (I32HEX)
|Line-No: 6         |Record type: 0     - Data         |Address: 134220120   |Lenght: 16   |Bit format: 32-bit (I32HEX)
|Line-No: 7         |Record type: 0     - Data         |Address: 134220136   |Lenght: 8    |Bit format: 32-bit (I32HEX)
|Line-No: 8         |Record type: 0     - Data         |Address: 134220144   |Lenght: 8    |Bit format: 32-bit (I32HEX)
|Line-No: 9         |Record type: 0     - Data         |Address: 134220152   |Lenght: 4    |Bit format: 32-bit (I32HEX)
|Line-No: 10        |Record type: 0     - Data         |Address: 134220156   |Lenght: 16   |Bit format: 32-bit (I32HEX)
|Line-No: 11        |Record type: 0     - Data         |Address: 134220172   |Lenght: 16   |Bit format: 32-bit (I32HEX)
|Line-No: 12        |Record type: 0     - Data         |Address: 134220188   |Lenght: 16   |Bit format: 32-bit (I32HEX)
|Line-No: 13        |Record type: 0     - Data         |Address: 134220332   |Lenght: 16   |Bit format: 32-bit (I32HEX)
|Line-No: 14        |Record type: 0     - Data         |Address: 134220988   |Lenght: 16   |Bit format: 32-bit (I32HEX)
|Line-No: 15        |Record type: 0     - Data         |Address: 134221068   |Lenght: 16   |Bit format: 32-bit (I32HEX)
|Line-No: 16        |Record type: 0     - Data         |Address: 134221084   |Lenght: 16   |Bit format: 32-bit (I32HEX)
|Line-No: 17        |Record type: 0     - Data         |Address: 134221164   |Lenght: 16   |Bit format: 32-bit (I32HEX)
|Line-No: 18        |Record type: 0     - Data         |Address: 134221180   |Lenght: 16   |Bit format: 32-bit (I32HEX)
|Line-No: 19        |Record type: 0     - Data         |Address: 134221196   |Lenght: 16   |Bit format: 32-bit (I32HEX)
|Line-No: 20        |Record type: 0     - Data         |Address: 134221212   |Lenght: 12   |Bit format: 32-bit (I32HEX)
|Line-No: 21        |Record type: 5     - Load EIP     |Address: 134217728   |Lenght: 4    |Bit format: 32-bit (I32HEX)
|Line-No: 22        |Record type: 1     - EoF          |Address: 134217728   |Lenght: 0    |Bit format: 32-bit (I32HEX)

D:\tmp\test>
```

where: hex - means that all numbers are printed in hexadecimal mode
  java -jar intelHex.jar -fi <file> -sot1 -sot3 -sot4 -soll -ot2 hex

```
D:\tmp\test>  java -jar intelHex.jar -fi t1.hex -sot1 -sot3 -sot4 -soll -ot2 hex
intelHex Viewer (c) Dipl.Ing. Michael Galinski

|Line-No: 000001    |Record type: 04    - Ext. Lin.   |Address: 08000000   |Lenght: 02   |Bit format: 32-bit (I32HEX)
|Line-No: 000002    |Record type: 00    - Data         |Address: 08000000   |Lenght: 10   |Bit format: 32-bit (I32HEX)
|Line-No: 000003    |Record type: 00    - Data         |Address: 08000130   |Lenght: 10   |Bit format: 32-bit (I32HEX)
|Line-No: 000004    |Record type: 00    - Data         |Address: 080001a0   |Lenght: 10   |Bit format: 32-bit (I32HEX)
|Line-No: 000005    |Record type: 00    - Data         |Address: 08000230   |Lenght: 10   |Bit format: 32-bit (I32HEX)
|Line-No: 000006    |Record type: 00    - Data         |Address: 08000958   |Lenght: 10   |Bit format: 32-bit (I32HEX)
|Line-No: 000007    |Record type: 00    - Data         |Address: 08000968   |Lenght: 08   |Bit format: 32-bit (I32HEX)
|Line-No: 000008    |Record type: 00    - Data         |Address: 08000970   |Lenght: 08   |Bit format: 32-bit (I32HEX)
|Line-No: 000009    |Record type: 00    - Data         |Address: 08000978   |Lenght: 04   |Bit format: 32-bit (I32HEX)
|Line-No: 00000a    |Record type: 00    - Data         |Address: 0800097c   |Lenght: 10   |Bit format: 32-bit (I32HEX)
|Line-No: 00000b    |Record type: 00    - Data         |Address: 0800098c   |Lenght: 10   |Bit format: 32-bit (I32HEX)
|Line-No: 00000c    |Record type: 00    - Data         |Address: 0800099c   |Lenght: 10   |Bit format: 32-bit (I32HEX)
|Line-No: 00000d    |Record type: 00    - Data         |Address: 08000a2c   |Lenght: 10   |Bit format: 32-bit (I32HEX)
|Line-No: 00000e    |Record type: 00    - Data         |Address: 08000cbc   |Lenght: 10   |Bit format: 32-bit (I32HEX)
|Line-No: 00000f    |Record type: 00    - Data         |Address: 08000d0c   |Lenght: 10   |Bit format: 32-bit (I32HEX)
|Line-No: 000010    |Record type: 00    - Data         |Address: 08000d1c   |Lenght: 10   |Bit format: 32-bit (I32HEX)
|Line-No: 000011    |Record type: 00    - Data         |Address: 08000d6c   |Lenght: 10   |Bit format: 32-bit (I32HEX)
|Line-No: 000012    |Record type: 00    - Data         |Address: 08000d7c   |Lenght: 10   |Bit format: 32-bit (I32HEX)
|Line-No: 000013    |Record type: 00    - Data         |Address: 08000d8c   |Lenght: 10   |Bit format: 32-bit (I32HEX)
|Line-No: 000014    |Record type: 00    - Data         |Address: 08000d9c   |Lenght: 0C   |Bit format: 32-bit (I32HEX)
|Line-No: 000015    |Record type: 05    - Load EIP     |Address: 08000000   |Lenght: 04   |Bit format: 32-bit (I32HEX)
|Line-No: 000016    |Record type: 01    - EoF          |Address: 08000000   |Lenght: 00   |Bit format: 32-bit (I32HEX)

D:\tmp\test>
```

to see only formatted line 3 enter:
  java -jar intelHex.jar -fi <file> -sot1 -sot2 -sot4 -soll

```
D:\tmp\test>  java -jar intelHex.jar -fi t1.hex -sot1 -sot2 -sot4 -soll
intelHex Viewer (c) Dipl.Ing. Michael Galinski

No         Addr        Len  Offs  Type  Chks  Data
No         Addr        Len  Offs  Type  Chks  Data
No         Addr        Len  Offs  Type  Chks  Data
No         Addr        Len  Offs  Type  Chks  Data
No         Addr        Len  Offs  Type  Chks  Data
No         Addr        Len  Offs  Type  Chks  Data
No         Addr        Len  Offs  Type  Chks  Data
No         Addr        Len  Offs  Type  Chks  Data
No         Addr        Len  Offs  Type  Chks  Data
No         Addr        Len  Offs  Type  Chks  Data
No         Addr        Len  Offs  Type  Chks  Data
No         Addr        Len  Offs  Type  Chks  Data
No         Addr        Len  Offs  Type  Chks  Data
No         Addr        Len  Offs  Type  Chks  Data
No         Addr        Len  Offs  Type  Chks  Data
No         Addr        Len  Offs  Type  Chks  Data
```

Formated line 3 ist only the header line for formattted line 4.

to see only formatted line 4 enter:
  java -jar intelHex.jar -fi <file> -sot1 -sot2 -sot3 -soll

```
D:\tmp\test>  java -jar intelHex.jar -fi t1.hex -sot1 -sot2 -sot3 -soll
intelHex Viewer (c) Dipl.Ing. Michael Galinski

1          08000000    02   0000  04    F2    08 00
2          08000000    10   0000  00    FF    00 50 00 20 3D 06 00 08 8D 06 00 08 8D 06 00 08
3          08000130    10   0130  00    21    10 B5 05 4C 23 78 33 B9 04 4B 13 B1 04 48 AF F3
4          080001a0    10   01a0  00    F4    00 AF 8A 4A 89 4B 9B 69 43 F0 04 03 93 61 88 4A
5          08000230    10   0230  00    4B    9B 89 9B B2 43 F0 0C 03 9B B2 93 81 65 4A 65 4B
6          08000958    10   0958  00    F6    52 65 67 20 52 43 43 5F 43 46 47 52 3A 20 30 78
7          08000968    08   0968  00    67    00 00 00 00 00 00 00 20
8          08000970    08   0970  00    32    E1 06 00 08 55 01 00 08
9          08000978    04   0978  00    41    31 01 00 08
10         0800097c    10   097c  00    07    00 00 00 00 EC 02 00 20 54 03 00 20 BC 03 00 20
11         0800098c    10   098c  00    5B    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
12         0800099c    10   099c  00    4B    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
13         08000a2c    10   0a2c  00    8E    0E 33 CD AB 34 12 6D E6 EC DE 05 00 0B 00 00 00
14         08000cbc    10   0cbc  00    28    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
15         08000d0c    10   0d0c  00    D7    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
16         08000d1c    10   0d1c  00    C7    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
17         08000d6c    10   0d6c  00    77    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
18         08000d7c    10   0d7c  00    67    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
19         08000d8c    10   0d8c  00    57    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
20         08000d9c    0C   0d9c  00    DF    00 00 00 00 00 00 00 00 48 04 00 20
21         08000000    04   0000  05    AC    08 00 06 3D
22         08000000    00   0000  01    FF

D:\tmp\test>
```

You can control the output of header line (formatted line 3) with the option -ot3 eo|e<n>[b<n>]
[a<n>]
where: eo - means output header line only once
  java -jar intelHex.jar -fi <file> -sot1 -sot2 -soll -ot3 eo

```
D:\tmp\test>  java -jar intelHex.jar -fi t1.hex -sot1 -sot2 -soll -ot3 eo
intelHex Viewer (c) Dipl.Ing. Michael Galinski

No       Addr       Len  Offs  Type  Chks  Data
1        08000000   02   0000  04    F2    08 00
2        08000000   10   0000  00    FF    00 50 00 20 3D 06 00 08 8D 06 00 08 8D 06 00 08
3        08000130   10   0130  00    21    10 B5 05 4C 23 78 33 B9 04 4B 13 B1 04 48 AF F3
4        080001a0   10   01a0  00    F4    00 AF 8A 4A 89 4B 9B 69 43 F0 04 03 93 61 88 4A
5        08000230   10   0230  00    4B    9B 89 9B B2 43 F0 0C 03 9B B2 93 81 65 4A 65 4B
6        08000958   10   0958  00    F6    52 65 67 20 52 43 43 5F 43 46 47 52 3A 20 30 78
7        08000968   08   0968  00    67    00 00 00 00 00 00 00 20
8        08000970   08   0970  00    32    E1 06 00 08 55 01 00 08
9        08000978   04   0978  00    41    31 01 00 08
10       0800097c   10   097c  00    07    00 00 00 00 EC 02 00 20 54 03 00 20 BC 03 00 20
11       0800098c   10   098c  00    5B    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
12       0800099c   10   099c  00    4B    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
13       08000a2c   10   0a2c  00    8E    0E 33 CD AB 34 12 6D E6 EC DE 05 00 0B 00 00 00
14       08000cbc   10   0cbc  00    28    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
15       08000d0c   10   0d0c  00    D7    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
16       08000d1c   10   0d1c  00    C7    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
17       08000d6c   10   0d6c  00    77    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
18       08000d7c   10   0d7c  00    67    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
19       08000d8c   10   0d8c  00    57    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
20       08000d9c   0C   0d9c  00    DF    00 00 00 00 00 00 00 00 48 04 00 20
21       08000000   04   0000  05    AC    08 00 06 3D
22       08000000   00   0000  01    FF

D:\tmp\test>
```

where: e<n> - means output header line each <n> output lines
  java -jar intelHex.jar -fi <file> -sot1 -sot2 -soll -ot3 e3

```
D:\tmp\test>  java -jar intelHex.jar -fi t1.hex -sot1 -sot2 -soll -ot3 e3
intelHex Viewer (c) Dipl.Ing. Michael Galinski

No       Addr       Len  Offs  Type  Chks  Data
1        08000000   02   0000  04    F2    08 00
2        08000000   10   0000  00    FF    00 50 00 20 3D 06 00 08 8D 06 00 08 8D 06 00 08
3        08000130   10   0130  00    21    10 B5 05 4C 23 78 33 B9 04 4B 13 B1 04 48 AF F3
No       Addr       Len  Offs  Type  Chks  Data
4        080001a0   10   01a0  00    F4    00 AF 8A 4A 89 4B 9B 69 43 F0 04 03 93 61 88 4A
5        08000230   10   0230  00    4B    9B 89 9B B2 43 F0 0C 03 9B B2 93 81 65 4A 65 4B
6        08000958   10   0958  00    F6    52 65 67 20 52 43 43 5F 43 46 47 52 3A 20 30 78
No       Addr       Len  Offs  Type  Chks  Data
7        08000968   08   0968  00    67    00 00 00 00 00 00 00 20
8        08000970   08   0970  00    32    E1 06 00 08 55 01 00 08
9        08000978   04   0978  00    41    31 01 00 08
No       Addr       Len  Offs  Type  Chks  Data
10       0800097c   10   097c  00    07    00 00 00 00 EC 02 00 20 54 03 00 20 BC 03 00 20
11       0800098c   10   098c  00    5B    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
12       0800099c   10   099c  00    4B    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
No       Addr       Len  Offs  Type  Chks  Data
13       08000a2c   10   0a2c  00    8E    0E 33 CD AB 34 12 6D E6 EC DE 05 00 0B 00 00 00
14       08000cbc   10   0cbc  00    28    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
15       08000d0c   10   0d0c  00    D7    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
No       Addr       Len  Offs  Type  Chks  Data
16       08000d1c   10   0d1c  00    C7    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
17       08000d6c   10   0d6c  00    77    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
18       08000d7c   10   0d7c  00    67    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
No       Addr       Len  Offs  Type  Chks  Data
19       08000d8c   10   0d8c  00    57    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
20       08000d9c   0C   0d9c  00    DF    00 00 00 00 00 00 00 00 48 04 00 20
21       08000000   04   0000  05    AC    08 00 06 3D
No       Addr       Len  Offs  Type  Chks  Data
22       08000000   00   0000  01    FF

D:\tmp\test>
```

where: b<n> - means output empty <n> lines before header line
where: a<n> - means output empty <n> lines after header line
  java -jar intelHex.jar -fi <file> -sot1 -sot2 -soll -ot3 e3b1

```
D:\tmp\test>  java -jar intelHex.jar -fi t1.hex -sot1 -sot2 -soll -ot3 e3b1
intelHex Viewer (c) Dipl.Ing. Michael Galinski

No      Addr      Len  Offs  Type  Chks  Data
1       08000000  02   0000  04    F2    08 00
2       08000000  10   0000  00    FF    00 50 00 20 3D 06 00 08 8D 06 00 08 8D 06 00 08
3       08000130  10   0130  00    21    10 B5 05 4C 23 78 33 B9 04 4B 13 B1 04 48 AF F3

No      Addr      Len  Offs  Type  Chks  Data
4       080001a0  10   01a0  00    F4    00 AF 8A 4A 89 4B 9B 69 43 F0 04 03 93 61 88 4A
5       08000230  10   0230  00    4B    9B 89 9B B2 43 F0 0C 03 9B B2 93 81 65 4A 65 4B
6       08000958  10   0958  00    F6    52 65 67 20 52 43 43 5F 43 46 47 52 3A 20 30 78

No      Addr      Len  Offs  Type  Chks  Data
7       08000968  08   0968  00    67    00 00 00 00 00 00 00 20
8       08000970  08   0970  00    32    E1 06 00 08 55 01 00 08
9       08000978  04   0978  00    41    31 01 00 08

No      Addr      Len  Offs  Type  Chks  Data
10      0800097c  10   097c  00    07    00 00 00 00 EC 02 00 20 54 03 00 20 BC 03 00 20
11      0800098c  10   098c  00    5B    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
12      0800099c  10   099c  00    4B    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00

No      Addr      Len  Offs  Type  Chks  Data
13      08000a2c  10   0a2c  00    8E    0E 33 CD AB 34 12 6D E6 EC DE 05 00 0B 00 00 00
14      08000cbc  10   0cbc  00    28    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
15      08000d0c  10   0d0c  00    D7    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00

No      Addr      Len  Offs  Type  Chks  Data
16      08000d1c  10   0d1c  00    C7    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
17      08000d6c  10   0d6c  00    77    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
18      08000d7c  10   0d7c  00    67    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00

No      Addr      Len  Offs  Type  Chks  Data
19      08000d8c  10   0d8c  00    57    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
20      08000d9c  0C   0d9c  00    DF    00 00 00 00 00 00 00 00 48 04 00 20
21      08000000  04   0000  05    AC    08 00 06 3D

No      Addr      Len  Offs  Type  Chks  Data
22      08000000  00   0000  01    FF

D:\tmp\test>
```

  java -jar intelHex.jar -fi <file> -sot1 -sot2 -soll -ot3 e3b1a1

```
D:\tmp\test>  java -jar intelHex.jar -fi t1.hex -sot1 -sot2 -soll -ot3 e3b1a1
intelHex Viewer (c) Dipl.Ing. Michael Galinski


No      Addr      Len  Offs  Type  Chks  Data

1       08000000  02   0000  04    F2    08 00
2       08000000  10   0000  00    FF    00 50 00 20 3D 06 00 08 8D 06 00 08 8D 06 00 08
3       08000130  10   0130  00    21    10 B5 05 4C 23 78 33 B9 04 4B 13 B1 04 48 AF F3

No      Addr      Len  Offs  Type  Chks  Data

4       080001a0  10   01a0  00    F4    00 AF 8A 4A 89 4B 9B 69 43 F0 04 03 93 61 88 4A
5       08000230  10   0230  00    4B    9B 89 9B B2 43 F0 0C 03 9B B2 93 81 65 4A 65 4B
6       08000958  10   0958  00    F6    52 65 67 20 52 43 43 5F 43 46 47 52 3A 20 30 78

No      Addr      Len  Offs  Type  Chks  Data

7       08000968  08   0968  00    67    00 00 00 00 00 00 00 20
8       08000970  08   0970  00    32    E1 06 00 08 55 01 00 08
9       08000978  04   0978  00    41    31 01 00 08

No      Addr      Len  Offs  Type  Chks  Data

10      0800097c  10   097c  00    07    00 00 00 00 EC 02 00 20 54 03 00 20 BC 03 00 20
11      0800098c  10   098c  00    5B    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
12      0800099c  10   099c  00    4B    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00

No      Addr      Len  Offs  Type  Chks  Data

13      08000a2c  10   0a2c  00    8E    0E 33 CD AB 34 12 6D E6 EC DE 05 00 0B 00 00 00
14      08000cbc  10   0cbc  00    28    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
15      08000d0c  10   0d0c  00    D7    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00

No      Addr      Len  Offs  Type  Chks  Data

16      08000d1c  10   0d1c  00    C7    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
17      08000d6c  10   0d6c  00    77    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
18      08000d7c  10   0d7c  00    67    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00

No      Addr      Len  Offs  Type  Chks  Data

19      08000d8c  10   0d8c  00    57    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
20      08000d9c  0C   0d9c  00    DF    00 00 00 00 00 00 00 00 48 04 00 20
21      08000000  04   0000  05    AC    08 00 06 3D

No      Addr      Len  Offs  Type  Chks  Data

22      08000000  00   0000  01    FF

D:\tmp\test>
```

You can control the output of line4 with the option -ot4
The header line for the given column will be correspond automatically controlled.
to switch off the output of columns ‚Type' and ‚Chks' enter:
  java -jar intelHex.jar -fi <file> -sot1 -sot2 -soll -ot3 e8b1a0 -ot4_type no -ot4_chksum no

```
D:\tmp\test>  java -jar intelHex.jar -fi t1.hex -sot1 -sot2 -soll -ot3 e8b1a0 -ot4_type no -ot4_chksum no
intelHex Viewer (c) Dipl.Ing. Michael Galinski


No      Addr      Len  Offs  Data
1       08000000  02   0000  08 00
2       08000000  10   0000  00 50 00 20 3D 06 00 08 8D 06 00 08 8D 06 00 08
3       08000130  10   0130  10 B5 05 4C 23 78 33 B9 04 4B 13 B1 04 48 AF F3
4       080001a0  10   01a0  00 AF 8A 4A 89 4B 9B 69 43 F0 04 03 93 61 88 4A
5       08000230  10   0230  9B 89 9B B2 43 F0 0C 03 9B B2 93 81 65 4A 65 4B
6       08000958  10   0958  52 65 67 20 52 43 43 5F 43 46 47 52 3A 20 30 78
7       08000968  08   0968  00 00 00 00 00 00 00 20
8       08000970  08   0970  E1 06 00 08 55 01 00 08

No      Addr      Len  Offs  Data
9       08000978  04   0978  31 01 00 08
10      0800097c  10   097c  00 00 00 00 EC 02 00 20 54 03 00 20 BC 03 00 20
11      0800098c  10   098c  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
12      0800099c  10   099c  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
13      08000a2c  10   0a2c  0E 33 CD AB 34 12 6D E6 EC DE 05 00 0B 00 00 00
14      08000cbc  10   0cbc  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
15      08000d0c  10   0d0c  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
16      08000d1c  10   0d1c  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00

No      Addr      Len  Offs  Data
17      08000d6c  10   0d6c  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
18      08000d7c  10   0d7c  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
19      08000d8c  10   0d8c  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
20      08000d9c  0C   0d9c  00 00 00 00 00 00 00 00 48 04 00 20
21      08000000  04   0000  08 00 06 3D
22      08000000  00   0000

D:\tmp\test>
```

This tool checks the format of the input file which must be correct intel-hex one.
If you have empty lines in the input file, you can ignore this with the option -neoel
Normally empty lines are not allowed in the intel-hex file and the tool will terminate on error.

Also you can redirect the output to the file with the option   -fo <File>

Enjoy your new intelHex viewer tool!