

# How to use "HexAreaChecker" (Hex file address space confirmation tool)

## 1 First of all

This file is the viewer of the Hex file. Main purpose is to check the address space.

It supports Motorola S-record format (.s19, .mot) and Intel HEX format (.hex), and automatically determines the format when reading.


Correspondence:

Motorola S-record format: Record Field=S0~S3, S5~S9 (S4 is not responding because it is Reserved)

Intel HEX format: Recode Type=00~05

HexAreaChecker also checks the data length and checksum, so it can be used for confirming the checksum after editing data. Numbers are written in hexadecimal notation except for the "No." column of the Summary sheet.

## Sample Hex file



sample_motorola.s19(更新)	
1	S00F000006C65645F746573742E6D6F741E
2	S1130000000010000000100000001000000100E8
3	S11300100000010000000100000001000000100D8
4	S113002000000100000001000000010000000100C8
5	S113003000000100000001000000010000000100B8
6	S113004000000100000001000000010000000100A8
7	S11300500000010000000100000001000000010098
8	S11300600000010000000100000001000000010088
9	S11300700000010000000100000001000000010078
10	S11300800000010000000100000001000000010068
11	S11300900000010000000100000001000000010058
12	S11300A00000010000000100000001000000010048
13	S11300B00000010000000100000001000000010038
14	S11300C00000010000000100000001000000010028
15	S11300D00000010000000100000001000000010018
16	S11300E00000010000000100000001000000010008
17	S10700F00000010007
18	S11301007A07000FF0E7A00000001627A01000FE7
19	S1130110DF107A02000FDF1069036930B800B81F3
20	S11301201FA145F45E00012A40D601006DF80FF6CA
21	S11301301B97FAFF3AD418AA3AD61AB32AD6170A42
22	S11301403AD601006FE3FFFC01006F62FFFC0DAA0C9
23	S113015046EA01006F62FFFC0B0201006FE2FFFC44
24	S105016040E673
25	S9030100FB
26	

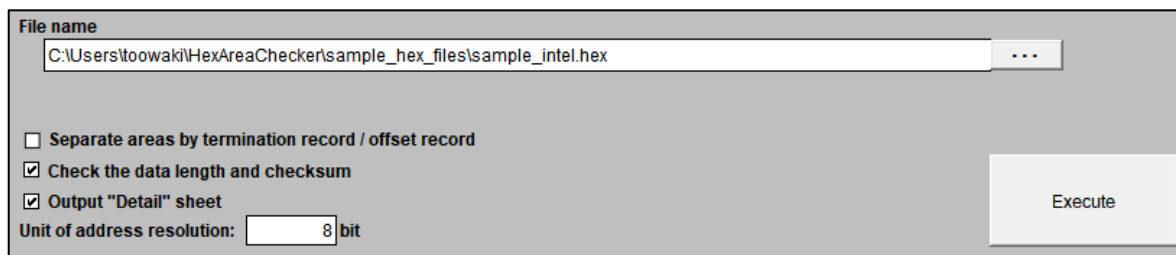
## Detailed result: (Detail sheet)

	A	B	C	D	E	F	G	H	I	J	K
1	Type	Cnt	Address	Data	ChkSum		Address			START/END	Log
2	S0	0F	0000	8C65645F746573742E6D6F74	1E					(Start of file)	
3	S1	13	0000	000001000000010000000100000000100	E8		0000	-	000F	START	
4	S1	13	0010	000001000000010000000100000000100	D8		0010	-	001F		
5	S1	13	0020	000001000000010000000100000000100	C8		0020	-	002F		
6	S1	13	0030	000001000000010000000100000000100	B8		0030	-	003F		
7	S1	13	0040	000001000000010000000100000000100	A8		0040	-	004F		
8	S1	13	0050	000001000000010000000100000000100	98		0050	-	005F		
9	S1	13	0060	000001000000010000000100000000100	88		0060	-	006F		
10	S1	13	0070	000001000000010000000100000000100	78		0070	-	007F		
11	S1	13	0080	000001000000010000000100000000100	68		0080	-	008F		
12	S1	13	0090	000001000000010000000100000000100	58		0090	-	009F		
13	S1	13	00A0	000001000000010000000100000000100	48		00A0	-	00AF		
14	S1	13	00B0	000001000000010000000100000000100	38		00B0	-	00BF		
15	S1	13	00C0	000001000000010000000100000000100	28		00C0	-	00CF		
16	S1	13	00D0	000001000000010000000100000000100	18		00D0	-	00DF		
17	S1	13	00E0	000001000000010000000100000000100	08		00E0	-	00EF		
18	S1	07	00F0	00000100	07		00F0	-	00F3	END	
19	S1	13	0100	7A07000FF0E7A00000001627A01000FE7	E7		0100	-	010F	START	
20	S1	13	0110	DF107A02000FDF1069036930B800B81	F3		0110	-	011F		
21	S1	13	0120	1FA145F45E00012A40D601006DF80FF6CA	CA		0120	-	012F		
22	S1	13	0130	1B97FAFF3AD418AA3AD61AB32AD6170A42	42		0130	-	013F		
23	S1	13	0140	3AD601006FE3FFFC01006F62FFFC0DAA0C9	C9		0140	-	014F		
24	S1	13	0150	46EA01006F62FFFC0B0201006FE2FFFC44	44		0150	-	015F		
25	S1	05	0160	40E6	73		0160	-	0161	END	
26	S9	03	0100		FB					(Terminate)	

## Summary results (Summary sheet)

	A	B	C	D	E	F	G	H
1	Format: Motorola S-record							
2	File: C:\Users\toowaki\Desktop\HexAreaChecker\sample_motorola.s19							
3								
4	No.	Address	Size					
5	1	0000 - 00F3	00F4					
6	2	0100 - 0161	0062					

## 2 Usage



File name  
C:\Users\toowaki\HexAreaChecker\sample\_hex\_files\sample\_intel.hex ...

☐ Separate areas by termination record / offset record  
☒ Check the data length and checksum  
☒ Output "Detail" sheet

Unit of address resolution: 8 bit

Execute

[Step1]

Please select Hex file.

[Step2]

Please press the "Execute" button.

Detailed result is output on Detail sheet, summary result is output on Summary sheet.

\* Do not edit other Excel files while scripts is running.

[Option setting]

You can choose whether or not to separate the address space by "Separate areas by termination record / offset record".

Termination record

Motorola S-record format: Record Field=S7, S8, S9

Offset record

Intel HEXformat: Recode Type=02, 04

## 3 Reference: About Hex file

For Hex files, please see below

Motorola S-record format:

【SREC (file format) - Wikipedia】

[https://en.wikipedia.org/wiki/SREC\\_\(file\\_format\)](https://en.wikipedia.org/wiki/SREC_(file_format))

Intel HEXformat:

【Intel HEX - Wikipedia】

[https://ja.wikipedia.org/wiki/Intel\\_HEX](https://ja.wikipedia.org/wiki/Intel_HEX)

## 4 Operating environment

Excel2007、Excel2010、Excel2013、Excel2016、  
Excel2019(Tested by Office365 MSO(16.0.11425.20220) 32bit)

## 5 Terms of use

This program is freeware. toowaki has copyright.

Please reprint freely.

Also, please do not alter or change add-ins attached to this software.

## 6 Disclaimer

Regardless of the damage caused by using this program, the author is not involved at all.

Please use this program at your own risk.

## 7 Contact

If you have any requests, please email [toowaki.fc2@gmail.com](mailto:toowaki.fc2@gmail.com).

In addition, please have a look, if it is good, since it is open to the following URL besides this software.

<http://toowaki.web.fc2.com/>

## 8 History

日付	内容	Ver.	編集者
2017/7/7	Create New	1.0	toowaki
2017/11/3	I made it easy to understand the progress situation	1.1	
2017/01/19	Corrected to open and analyze Hex file as read only	1.2	
2018/10/07	Added control of data length and checksum check	1.3	
2018/10/13	Added control of output detail sheet	1.4	
2019/04/14	VBA overflowed when the address exceeded 0x7FFFFFFF. Therefore, it has been fixed.	1.5	
2019/09/07	- When the address is larger than 0x7FFFFFFF, it was not displayed correctly. So, it was corrected. - Corrected the behavior of S5 and S6 in Motorola S-record format ( S19) format.	1.6	
2020/10/12	- Added unit of address resolution.	1.7	
2020/12/30	Fixed to work for addresses over 32 bits when using Intel HEX	1.8	