

PROJECT REPORT

Trap Game using Bios Interrupt (without Operating System)

Yohan Septianus Riyanto

09.02.0006

2013

	PERPUSTAKAAN
NO. INV	214 / S/K/C.1
TGL	7 Oktober 2013
PAPAR	<i>[Signature]</i>

FACULTY OF COMPUTER SCIENCE

SOEGIJAPRANATA CATHOLIC UNIVERSITY

Jl. Pawiyatan Luhur IV/1, Bendan Duwur, SEMARANG 50234

Telp. 024-8441555 (hunting) Web: <http://www.unika.ac.id>

Email: ikom@unika.ac.id

APPROVAL AND RATIFICATION PAGE

PROJECT REPORT

Trap Game using Bios Interrupt

(without Operating System)

This project report has been approved and ratified by the Dean of faculty of Computer Science and Supervisor on July 19th 2013

With Approval,

Examiners,

Supervisor,

Hironimus Leong, S.Kom., M.Kom

NPP : 058.1.2007.273

Suyanto Edward Antonius, Ir, M.Sc

NPP : 058.1.1992.116

Examiners,

Examiners,

Shinta Estri Wahyuningrum, S.Si

NPP : 058.1.2007.272

Rosita Herawati, ST., MIT

NPP : 058.1.2004.263

Examiners,

Dean of Faculty of Computer Science,

R. Setiawan Aji Nugroho, ST., McompIT

NPP : 058.1.2004.264

Hironimus Leong, S.Kom., M.Kom

NPP : 058.1.2007.273



STATEMENT OF ORIGINALITY

Here by signed,

Name : Yohan Septianus Riyanto

ID : 09.02.0006

Certify that this project was made by myself and not copy or plagiarizes from other people, except that in writing expressed to the other article. If it is proven that this project was plagiarizes or copy the other, I am ready to accept a sanction.

Semarang, Juli 19th 2013

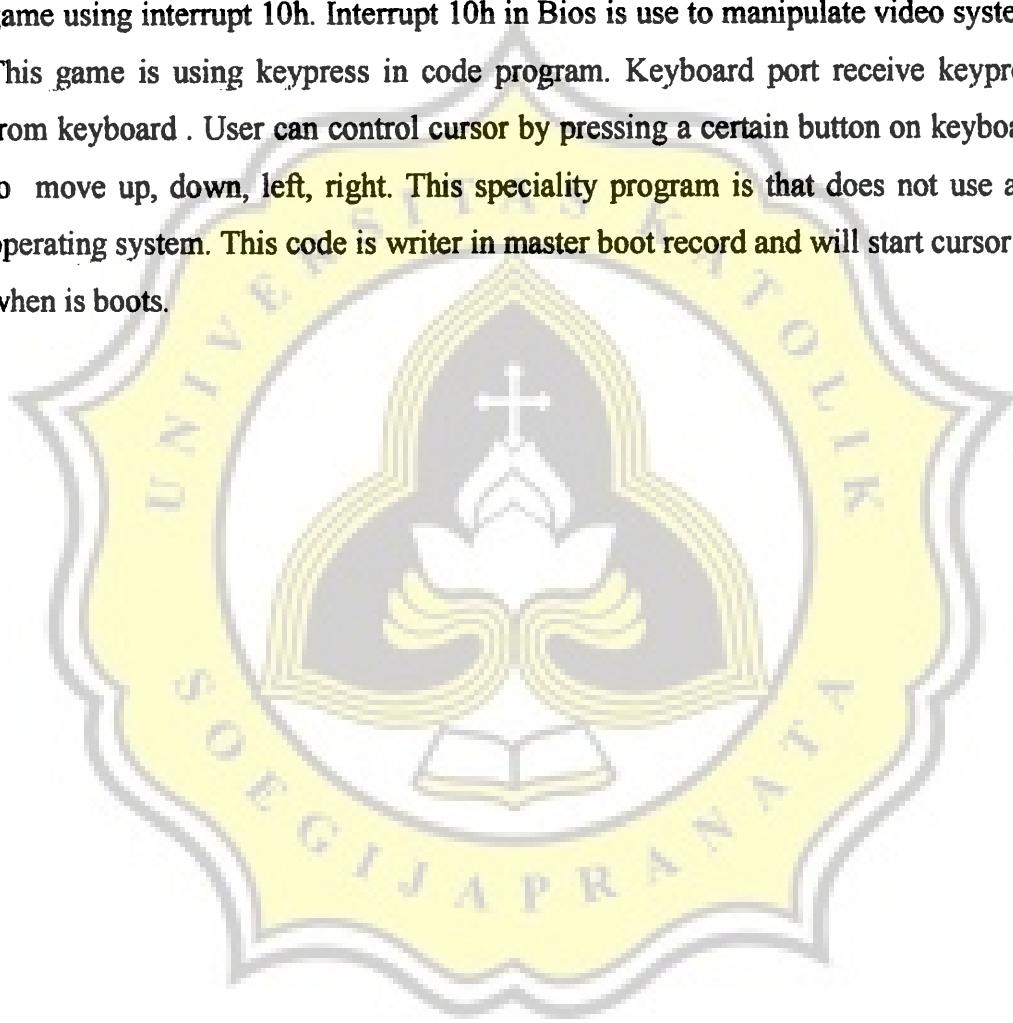
Yohan Septianus Riyanto

09.02.0006



ABSTRACT

This program is a trap game, where user can control cursor to dodge walls. This trap game is use Bios Interrupt without operating system. Interrupt in this is game using interrupt 10h. Interrupt 10h in Bios is use to manipulate video system. This game is using keypress in code program. Keyboard port receive keypress from keyboard . User can control cursor by pressing a certain button on keyboard to move up, down, left, right. This speciality program is that does not use any operating system. This code is writer in master boot record and will start cursor by when is boots.



FOREWORD

First of all i want say thanks to God for this project. I can complete this program with title:

Trap Game using Bios Interrupt (without operating system).

I in process complete program many people support and writer would thanks to:

- My parents, Riyanto Darmawarsito and Melia Stephanie and my sister Betty Novianty for their support, love, and pray.
- Inneke Elysia Lavender, S.Ked for their support, love and pray.
- Herry Setiono, Lucas Brahmantya, Dwi Isman Suwandi, Glenn Ricardo, William Sampoerna, Jap Kristian, Yonas Kefas, Jason Bernard Tjandra, Hans Christian , Dwi Christian, Donny Kurniawan and many more for support to finish this project.
- All lecturers in Faculty of Computer Science.
- IKOM SOEGIJAPRANATA CATHOLIC UNIVERSITY.

Finally, writer hope this program useful to many people.

Semarang, July 19th 2013

Yohan Septianus Riyanto

09.02.0006

TABLE OF CONTENT

COVER.....	i
APPROVAL AND RATIFICATION PAGE.....	ii
STATEMENT OF ORIGINALITY.....	iii
ABSTRACT.....	iv
FOREWORD.....	v
TABLE OF CONTENT.....	vi
TABLE OF FIGURE.....	viii
TABLE OF TABLE.....	ix
CHAPTER I: INTRODUCTION.....	1
1.1 Background.....	1
1.2 Scope.....	1
1.3 Objective.....	1
CHAPTER II: LITERATURE STUDY.....	2
2.1 Bios.....	2
2.2 Assembly.....	3
CHAPTER III: PLANNING.....	4
3.1 Research Methodologies.....	4
3.2 Project Management.....	4
CHAPTER IV: ANALYSIS AND DESIGN.....	5
4.1 Boot Process.....	5
4.2 Booting From Harddisk.....	5
4.3 Bios Interrupt.....	6
4.4 Keypress.....	7
CHAPTER V: IMPLEMENTATION AND TESTING.....	8
5.1 Implementation.....	8
5.2 Testing.....	15

CHAPTER VI: CONCLUSION AND FURTHER RESEARCH.....	21
6.1 Conclusion.....	21
6.2 Further Research.....	21
REFERENCE.....	22



TABLE OF FIGURE

Figure 2.1 Bios user interface.....	2
Figure 4.1 Input MBR.....	5
Figure 4.2 Booting in Harddisk.....	6
Figure 4.3 Function int 10h.....	6
Figure 4.4 Scan code.....	7
Figure 5.1 Program start here.....	8
Figure 5.2 Get input from keyboard.....	8
Figure 5.3 Formula input keypress.....	9
Figure 5.4 Print character.....	10
Figure 5.5 Print space.....	10
Figure 5.6 Move cursor.....	11
Figure 5.7 Move left and right.....	11
Figure 5.8 Move up and down.....	12
Figure 5.9 Delay.....	12
Figure 5.10 Print wall.....	13
Figure 5.11 Check wall.....	14
Figure 5.12 Compile program.....	15
Figure 5.13 Make new image.....	15
Figure 5.14 Insert program to new image.....	15
Figure 5.15 Result picture.....	16
Figure 5.16 Setting Vmware.....	16
Figure 5.17 Program start.....	16
Figure 5.18 Program work.....	17
Figure 5.19 Program hit wall.....	17
Figure 5.20 Compile and insert harddisk.....	18
Figure 5.21 Hard Disk Partition Table.....	19
Figure 5.22 Make a new partition.....	20
Figure 5.23 Fdisk last step.....	20

TABLE OF TABLE

Figure 3.1 Time table.....	4
----------------------------	---

