

SoC Robot Brain Board – FPGA

System Design Innovation & Application Research Center

- I. FPGA Device
- II. SoC Robot Project
- III. Compilation
- IV. FPGA Download



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FPGA Device

- **Company Name:** Altera
- **Device Family:** CycloneIV **Device:** EP4CE75U19I7
- **Package:** 324Pins
- **LEs:** 75408
- **User I/O:** 293
- **Generated Simulation Language:** Verilog HDL

FPGA PROM

- **Device Name:** EPCS64
- **Package:** 16pins SOIC
- **Configuration:** Serial

Design Software

- **Altera Quartus II**

Design Software

- **Altera USB Blaster**





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- SoC 로봇워 홈페이지 => 소스자료 게시판
- 2016년 AMAZON2 SoC 두뇌보드, FPGA 소스 첨부파일 다운로드

소스자료

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2016년 AMAZON2, SoC 두뇌보드, FPGA 소스

2016-03-04 16:15:45

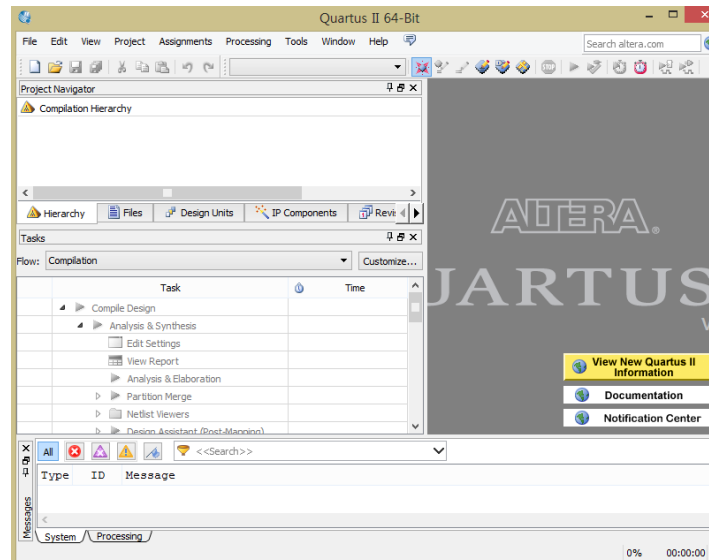
대회담당자 (143,248,146,153)

조회 : 23

Download : SoC Brain.zip (7.6M), Down:20

AMAZON2, 보드의 FPGA 소스코드 업데이트 되었습니다.

- SoC Brain.zip 압축풀기
- Quatus 실행

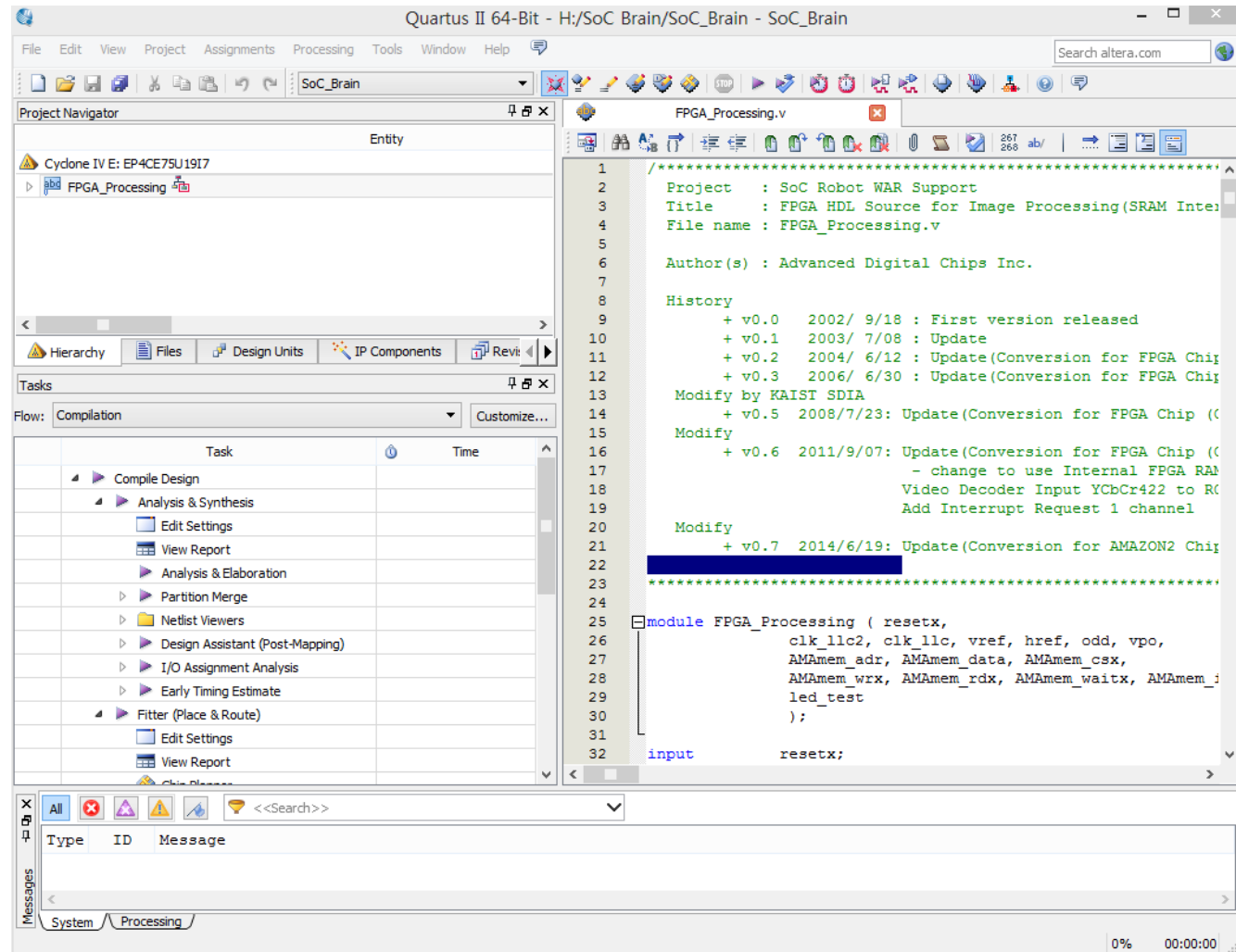




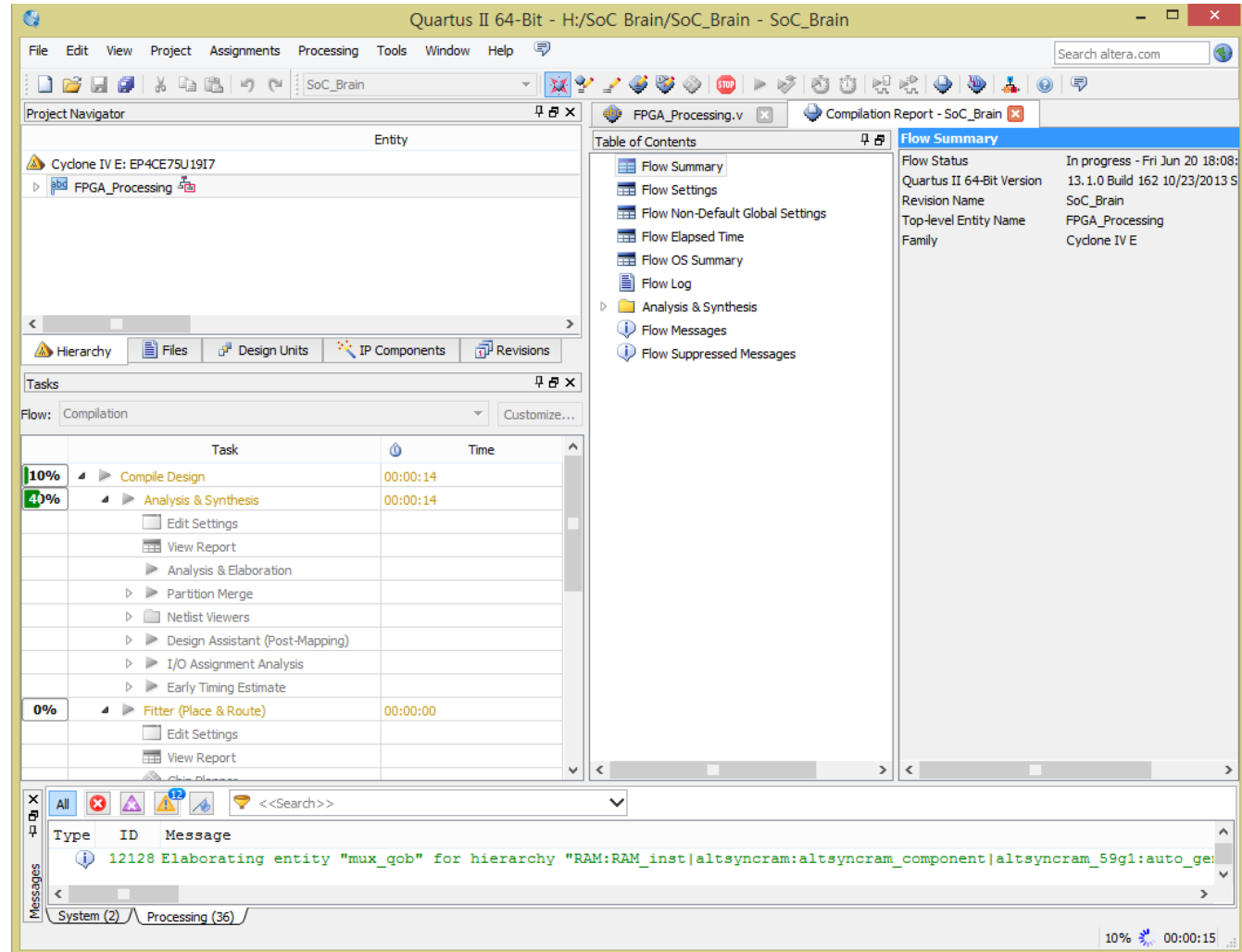
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- 프로젝트 Open
 - => File => Open Project
 - => SoC_Brain.qpf 파일 선택, Open



- Compile
=> Processing => Start Compilation



SDIA

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ROBOTWAR

adc

ALTERA

MINI ROBOT (주)미니로봇

ROBOTIS

DS7 Robot 디에스티로봇

인터보드

IDEC 반도체설계교육센터
IC DESIGN EDUCATION CENTER

KIRIA 한국로봇산업진흥원
KOREA INSTITUTE FOR ROBOT INDUSTRY ADVANCEMENT



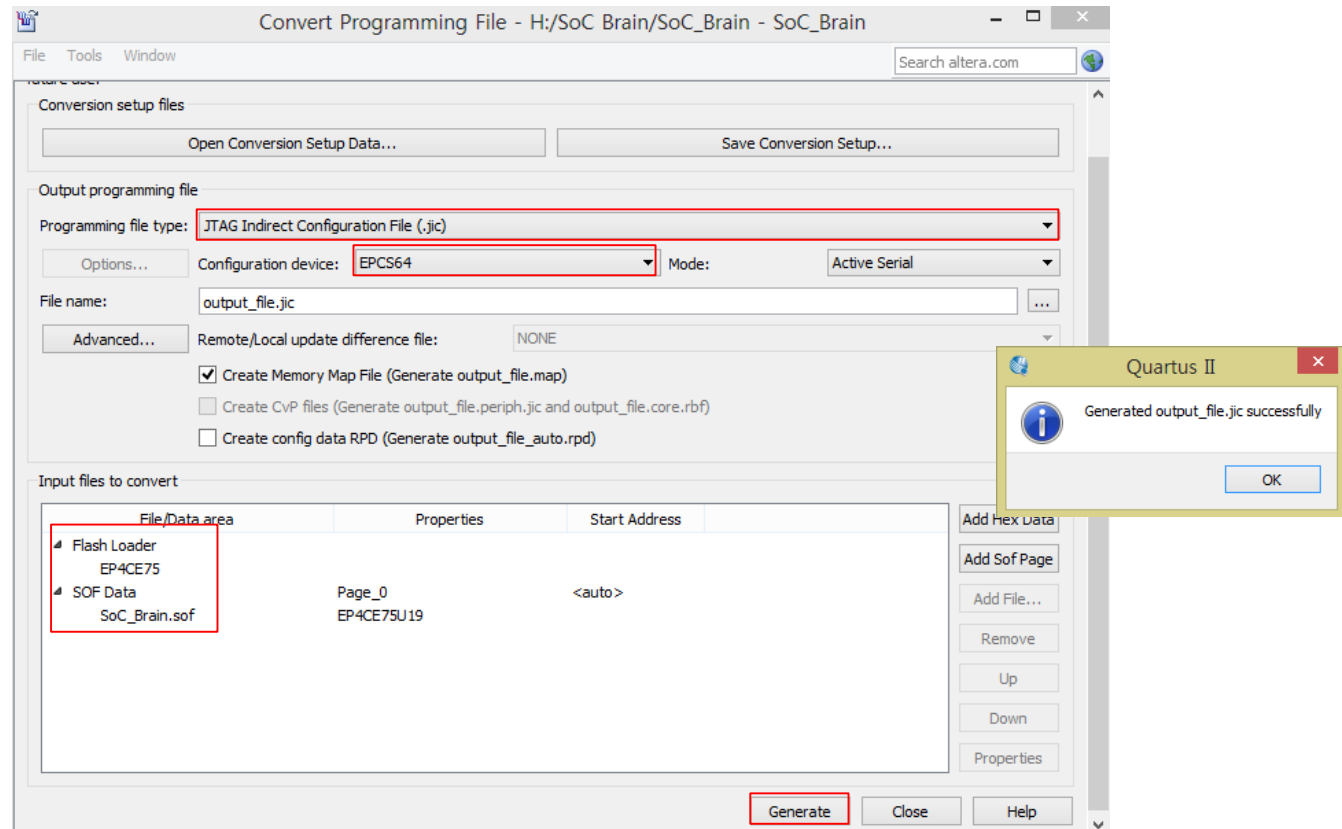
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• JIC(JTAG indirect Configuration file 파일 생성

=> File => Convert Programming Files

- Programming file type: JTAG Indirect Configuration File(.jic)
- Configuration device: EPCS64
- Flash Loader 선택 => Add Device... => Cyclone IV E / EP4CE75 체크
- SOF Data 선택 => Add File... => output_files 폴더 선택 => SoC_Brain.sof Open
- Generate 선택





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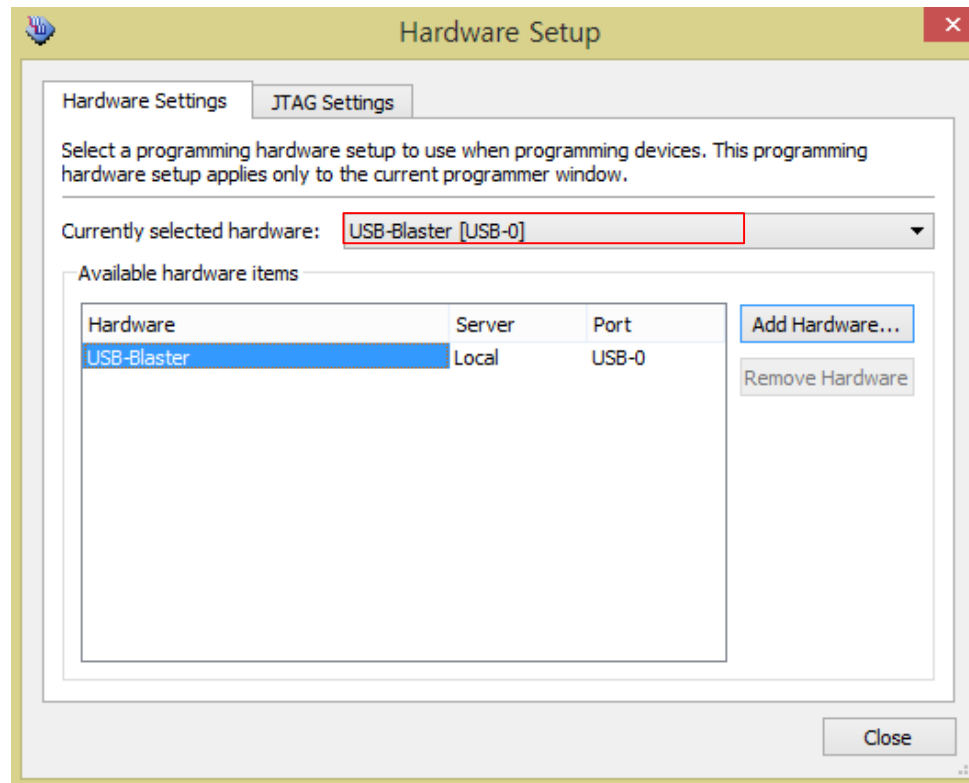


- FPGA Programming

=> tools => Programmer

- Hardware Setup

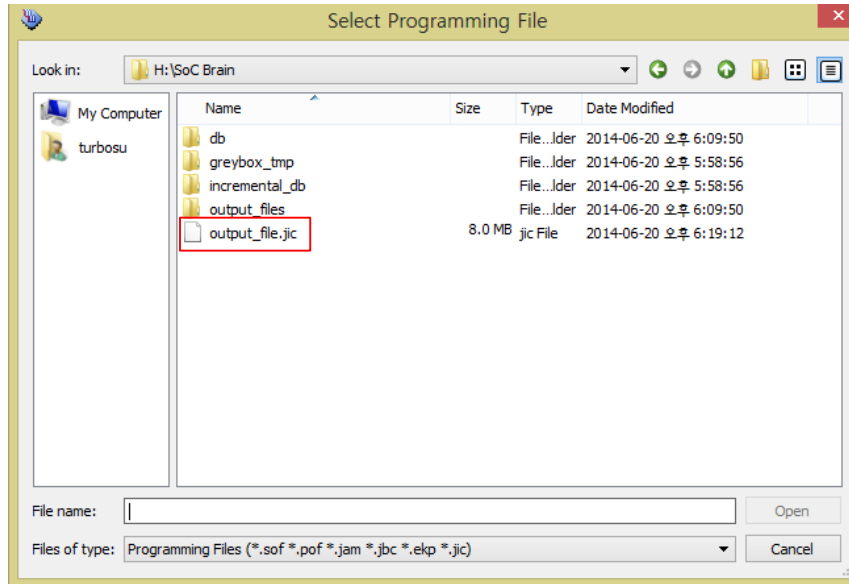
=> USB Blaster 연결 후 드라이버 설치 => USB-Blaster 선택





• JIC 파일 추가

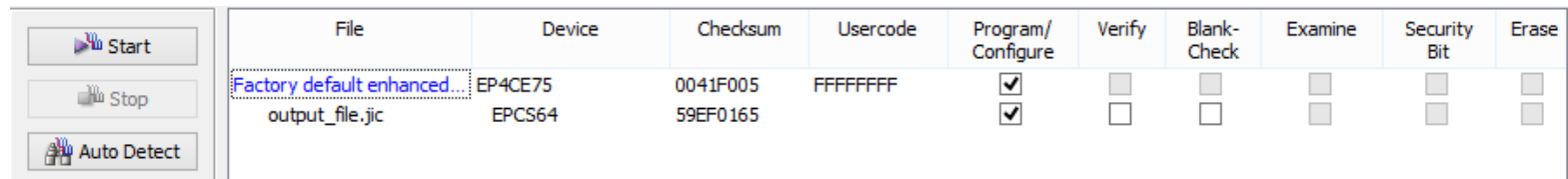
=> Add File... => Programmer => output_file.jic 선택



• Programming

=> Program/Configure 체크

=> SoC Brain Board 전원 ON => Start



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