



SNS COLLEGE OF TECHNOLOGY

(An Autonomous Institution)

COIMBATORE-35

Accredited by NBA-AICTE and Accredited by NAAC – UGC with A+ + Grade

Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai



19EEE305 / EMBEDDED SYSTEMS III YEAR / VI SEMESTER

UNIT-I: INTRODUCTION TO EMBEDDED SYSTEMS

BUILD PROCESS



Building Blocks of Embedded System

Hardware

- The Hardware consists of following building blocks and devices:
 - Power source
 - Clock Oscillator and Clocking Units
 - System Timer
 - Real Time Clock
 - Reset Circuit
 - Power Up Reset
 - Watchdog Timer Reset
 - Memory
 - I/O ports
 - I/O buses
 - I/O Interfaces
 - DAC
 - ADC



The Build Process



- The first step is selecting a processor
- The processor is selected from the following considerations
 - Instruction Set
 - Maximum bits in an operand in an operation
 - Clock frequency in MHz or GHz and the processing speed in Million Instructions per seconds
 - Processor ability to solve the complex algorithms used in meeting the deadlines for their processing



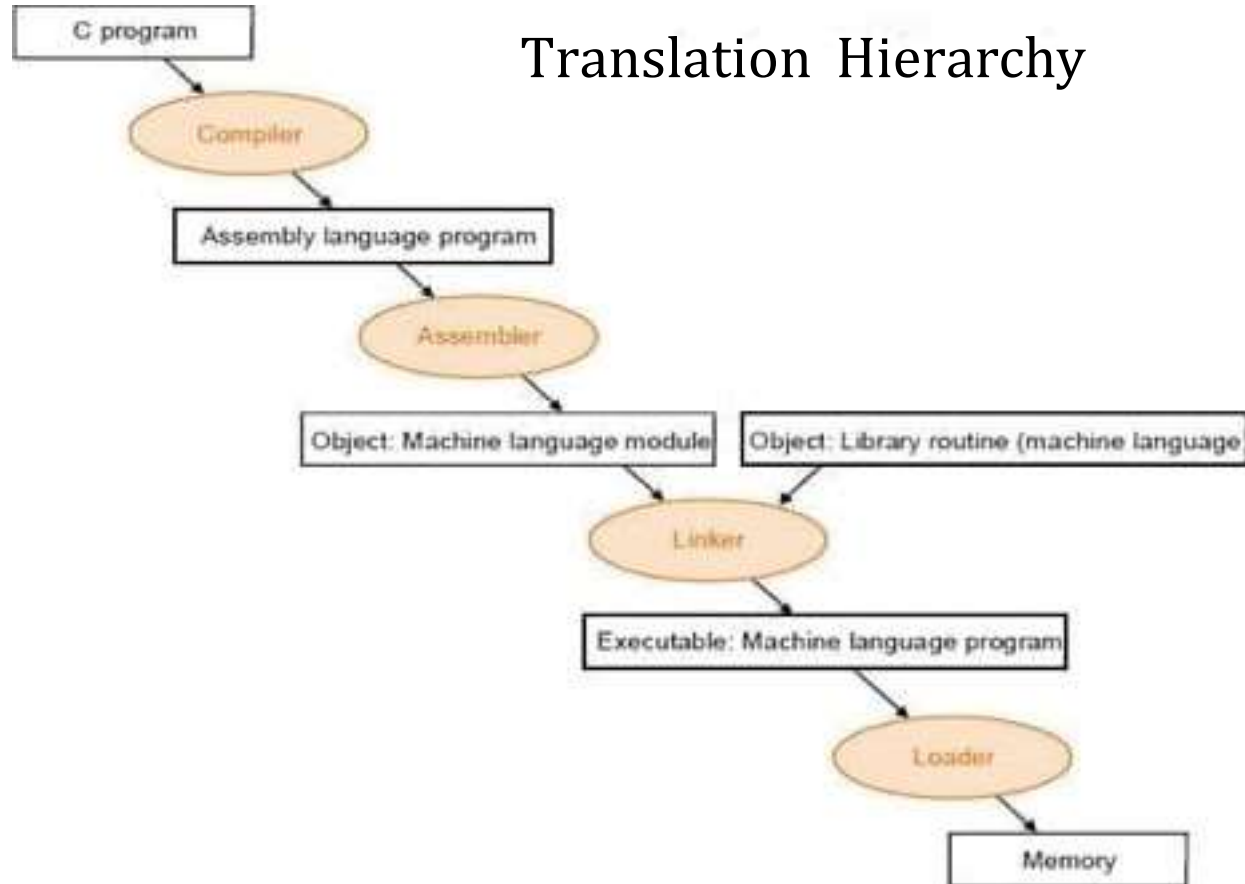
The Build Process



- The build process for embedding software consists of the following steps
 - Project file consisting of source file and library files
 - Compilation of the project files
 - Linking all object files and locating onto a single relocatable object file
 - Converting the object file in a form called hex-file to binary image

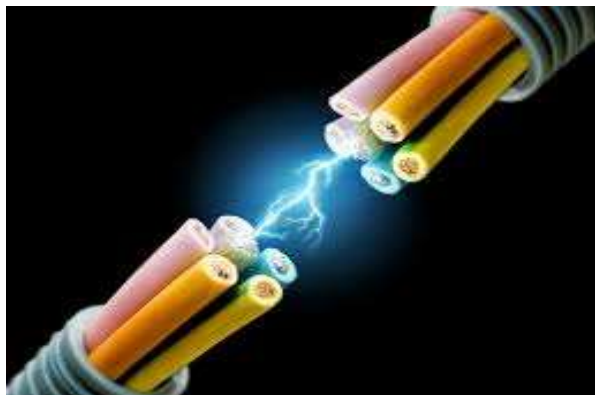
The Build Process

Translation Hierarchy





RECAP....



...THANK YOU

