

# Compiler Assignment #2

2016059216 컴퓨터 공학과  
이기택

## -Compilation method and environment

environment  
OS : ubuntu 16.04  
Compiler : gcc 4.8.4  
Make : GNU make 3.91

## -Build 방법

```
yacc -tdv ./cminus.y  
./cminus_flex ./test.cm
```

## -Example and Result ScreenShot

Example code  
동봉 된 test.cm 입니다.

다음 페이지 부터는 실행 결과입니다.

CMINUS COMPILATION: ./test.cm

Syntax tree:

```
  Var: globaltest
    Type: int
  Array Var: globalarrtest 10
Array Param : globalarrtest
  Type: int
Func: paramtest
  Type: int
  Type: void
  Compound
  Return
Func: paramtest
  Type: void
  Param : a
    Type: int
  Compound
  Return
Func: paramtest
  Type: void
  Array Param : a
    Type: int
  Compound
  Return
Func: paramtest
  Type: int
  Param : a
    Type: int
  Array Param : a
    Type: int
  Compound
  Return
    Const: 10
Func: gcd
  Type: int
  Param : u
    Type: int
  Param : v
    Type: int
  Compound
  If
    Op: ==
    Id: v
    Const: 0
  Return
    Id: u
  Return
    Call : gcd
    Id: v
    Op: -
    Id: u
    Op: *
    Op: /
    Id: u
    Id: v
    Id: v
  Return
    Call : gcd
    Id: x
```

```

    Id: y
Func: main
Type: void
Type: void
Compound
  Var: x
    Type: int
  Var: y
    Type: int
  Assign:      Id: x
    Call : input
  Assign:      Id: y
    Call : input
  Call : output
    Call : gcd
      Id: x
      Id: y
  While
    Const: 1
    Compound
      Assign:      Id: i
        Op: +
        Id: i
        Const: 1
  If
    Const: 1
    Compound
      Assign:      Id: u
        Op: +
        Id: u
        Const: 1
    Compound
      Assign:      Id: u
        Op: +
        Id: u
        Const: 1
  Op: >
    Id: a
    Id: b
  Op: <
    Id: b
    Id: c
  Op: ==
    Id: d
    Id: e
  Op: !=
    Id: k
    Id: e
  Op: <=
    Id: t
    Const: 1
  Op: >=
    Id: p
    Const: 2
  Assign:      Id: a
    Id: b
  Assign:      Id: a
    Const: 1
  Assign:      Id: a
    Array Id

```

Assign:            Id: a

  Array Id

    Const: 1

Op: +

  Op: \*

    Op: +

      Const: 1

      Const: 3

    Const: 4

Op: /

  Op: \*

    Const: 5

    Const: 10

  Op: -

    Const: 10

    Const: 2

Call : call

  Id: arga

  Id: argb

Call : call