SS_PROJEKAT

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Chapter 1

Class Index

1.1 Class List

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Chapter 2

File Index

2.1 File List

Here is a list of all files with brief descriptions:

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Chapter 3

Class Documentation

3.1 equNode Struct Reference

Cvor u listi koja sluzi da racuna .equ izraze.

#include <RegexSearch.h>

Public Attributes

- string **symbol**
- string equation
- int section
- int **s**

3.1.1 Detailed Description

Cvor u listi koja sluzi da racuna .equ izraze.

3.1.2 Member Data Documentation

3.1.2.1 equation

string equNode::equation

3.1.2.2 s

int equNode::s

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3.1.2.3 section

int equNode::section

3.1.2.4 symbol

```
string equNode::symbol
```

The documentation for this struct was generated from the following file:

• C:/Users/DUSAN/Desktop/ss PROJEKAT/ RegexSearch.h

3.2 Flink_Node Struct Reference

Jedan cvor u listi Flink(lista koja pamti gde se pojavljuje simbol)

#include <FlinkStruct.h>

Public Attributes

- · int adress
- char op

3.2.1 Detailed Description

Jedan cvor u listi Flink(lista koja pamti gde se pojavljuje simbol)

3.2.2 Member Data Documentation

3.2.2.1 adress

int Flink_Node::adress

3.2.2.2 op

char Flink_Node::op

The documentation for this struct was generated from the following file:

• C:/Users/DUSAN/Desktop/ss PROJEKAT/ FlinkStruct.h

3.3 pomNode Struct Reference

Cvor u listi koja sluzi da racuna .equ izraze.

```
#include <Relocation.h>
```

Public Member Functions

• pomNode (int lc, int next, string symbol, int section)

Public Attributes

- int locationCounter_
- int nextLC
- string **symbol_**
- int section_

3.3.1 Detailed Description

Cvor u listi koja sluzi da racuna .equ izraze.

3.3.2 Constructor & Destructor Documentation

3.3.2.1 pomNode()

3.3.3 Member Data Documentation

3.3.3.1 locationCounter_

```
int pomNode::locationCounter_
```

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3.3.3.2 nextLC

int pomNode::nextLC

3.3.3.3 section_

int pomNode::section_

3.3.3.4 symbol_

string pomNode::symbol_

The documentation for this struct was generated from the following file:

• C:/Users/DUSAN/Desktop/ss PROJEKAT/ Relocation.h

3.4 relNode Struct Reference

Cvor u listi koja cuva relokacione zapise.

#include <Relocation.h>

Public Attributes

- string offset
- string type
- string symbol
- int section
- · int adressing

3.4.1 Detailed Description

Cvor u listi koja cuva relokacione zapise.

3.4.2 Member Data Documentation

3.4.2.1 adressing

int relNode::adressing

3.4.2.2 offset

string relNode::offset

3.4.2.3 section

int relNode::section

3.4.2.4 symbol

string relNode::symbol

3.4.2.5 type

string relNode::type

The documentation for this struct was generated from the following file:

• C:/Users/DUSAN/Desktop/ss PROJEKAT/ Relocation.h

3.5 sectionNode Struct Reference

Cvor u listi za sekcije.

#include <SectionTable.h>

Public Attributes

- string name
- string offset
- string rwa
- char GL
- int realLC

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3.5.1 Detailed Description

Cvor u listi za sekcije.

3.5.2 Member Data Documentation

3.5.2.1 GL

char sectionNode::GL

3.5.2.2 name

string sectionNode::name

3.5.2.3 offset

string sectionNode::offset

3.5.2.4 realLC

int sectionNode::realLC

3.5.2.5 rwa

string sectionNode::rwa

The documentation for this struct was generated from the following file:

 $\bullet \ \ C:/Users/DUSAN/Desktop/ss\ PROJEKAT/\ \textbf{SectionTable.h}$

3.6 symbolNode Struct Reference

Covr u listi rabele simbola.

#include <SymbolTable.h>

Public Member Functions

• symbolNode (string name_, int value_)

Public Attributes

- string name
- int value
- int size
- bool defined
- · char LG
- int section
- bool isEqu
- int equSection
- list< Flink_Node > Flink

3.6.1 Detailed Description

Covr u listi rabele simbola.

3.6.2 Constructor & Destructor Documentation

3.6.2.1 symbolNode()

3.6.3 Member Data Documentation

3.6.3.1 defined

bool symbolNode::defined

3.6.3.2 equSection

 $\verb"int symbolNode":: equSection"$

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3.6.3.3 Flink

list< Flink_Node> symbolNode::Flink

3.6.3.4 isEqu

bool symbolNode::isEqu

3.6.3.5 LG

char symbolNode::LG

3.6.3.6 name

string symbolNode::name

3.6.3.7 section

int symbolNode::section

3.6.3.8 size

int symbolNode::size

3.6.3.9 value

int symbolNode::value

The documentation for this struct was generated from the following file:

• C:/Users/DUSAN/Desktop/ss PROJEKAT/ SymbolTable.h

Chapter 4

File Documentation

4.1 C:/Users/DUSAN/Desktop/ss PROJEKAT/Adressing.cpp File Reference

```
#include <iostream>
#include "Adressing.h"
#include <string>
#include <regex>
#include "DigitConvert.h"
#include "SymbolTable.h"
#include "RegexSearch.h"
#include "Relocation.h"
```

Functions

• int regdir (string arg1)

Ispituje da li je adresiranje registarsko direktno.

• int **regind** (string arg1)

Ispituje da li je adresiranje registarsko indirektno.

• int regindpom (string arg1, int &pom)

Ispituje da li je adresiranje registarsko indirektno sa pomerajem.

• int **memdir** (string arg)

Ispituje da li je adresiranje memorijsko direktno.

• int immed (string arg1)

Ispituje da li je adresiranje neposredno.

• int determinateAdressing (string arg, int &pom, int & adressing)

Fja koja ispituje koje je adresiranje.

Variables

• bool **sym** = false

4.1.1 Function Documentation

4.1.1.1 determinateAdressing()

Fja koja ispituje koje je adresiranje.

4.1.1.2 immed()

```
int immed ( \label{eq:string} \mbox{string $arg1$ )}
```

Ispituje da li je adresiranje neposredno.

4.1.1.3 memdir()

```
int memdir ( {\tt string} \ {\it arg} \ )
```

Ispituje da li je adresiranje memorijsko direktno.

4.1.1.4 regdir()

```
int regdir (
          string arg1 )
```

Ispituje da li je adresiranje registarsko direktno.

4.1.1.5 regind()

```
int regind ( {\tt string} \ {\it arg1} \ )
```

Ispituje da li je adresiranje registarsko indirektno.

4.1.1.6 regindpom()

```
int regindpom (
    string arg1,
    int & pom )
```

Ispituje da li je adresiranje registarsko indirektno sa pomerajem.

4.1.2 Variable Documentation

4.1.2.1 sym

```
bool sym = false
```

4.2 C:/Users/DUSAN/Desktop/ss PROJEKAT/Adressing.h File Reference

```
#include <iostream>
#include <string>
```

Functions

• int regdir (string arg1)

Ispituje da li je adresiranje registarsko direktno.

• int **regind** (string arg1)

Ispituje da li je adresiranje registarsko indirektno.

• int regindpom (string arg1, int &pom)

Ispituje da li je adresiranje registarsko indirektno sa pomerajem.

• int **memdir** (string arg1)

Ispituje da li je adresiranje memorijsko direktno.

• int **immed** (string arg)

Ispituje da li je adresiranje neposredno.

• int determinateAdressing (string arg, int &pom, int & adressing)

Fja koja ispituje koje je adresiranje.

Variables

• bool sym

4.2.1 Function Documentation

4.2.1.1 determinateAdressing()

Fja koja ispituje koje je adresiranje.

4.2.1.2 immed()

```
int immed ( {\tt string} \ {\it arg} \ )
```

Ispituje da li je adresiranje neposredno.

4.2.1.3 memdir()

```
int memdir ( string \ \textit{arg1} \ )
```

Ispituje da li je adresiranje memorijsko direktno.

4.2.1.4 regdir()

```
int regdir ( {\tt string} \ {\it arg1} \ )
```

Ispituje da li je adresiranje registarsko direktno.

4.2.1.5 regind()

```
int regind ( {\tt string} \ {\it arg1} \ )
```

Ispituje da li je adresiranje registarsko indirektno.

4.2.1.6 regindpom()

```
int regindpom (
    string arg1,
    int & pom )
```

Ispituje da li je adresiranje registarsko indirektno sa pomerajem.

4.2.2 Variable Documentation

4.2.2.1 sym

```
bool sym [extern]
```

4.3 C:/Users/DUSAN/Desktop/ss PROJEKAT/DigitConvert.cpp File Reference

```
#include <iostream>
#include <string>
#include "DigitConvert.h"
#include "SymbolTable.h"
#include <iomanip>
```

Functions

• string intToHex (int num)

Funkcija koja konvertuje integer u hexa vrednost.

• string makeTwoBytes (string hex)

Pravi dva bajta u hexa predstavu.

• string **makeWord** (string first, string second, string third, string fourth, string fifth, string sixst, string seventh)

Pravi rec za masinski kod u velicini od 3 do 7 bajtova.

4.3.1 Function Documentation

4.3.1.1 intToHex()

```
string intToHex (
          int num )
```

Funkcija koja konvertuje integer u hexa vrednost.

4.3.1.2 makeTwoBytes()

```
string makeTwoBytes ( string hex )
```

Pravi dva bajta u hexa predstavu.

4.3.1.3 makeWord()

```
string makeWord (
string first,
string second,
string third,
string fourth,
string fifth,
string sixst,
string seventh)
```

Pravi rec za masinski kod u velicini od 3 do 7 bajtova.

4.4 C:/Users/DUSAN/Desktop/ss PROJEKAT/DigitConvert.h File Reference

```
#include <string>
```

Functions

• string intToHex (int num)

Funkcija koja konvertuje integer u hexa vrednost.

• string makeTwoBytes (string hex)

Pravi dva bajta u hexa predstavu.

• string **makeWord** (string first, string second, string thrid, string fourth, string fifth, string sixst, string seventh)

Pravi rec za masinski kod u velicini od 3 do 7 bajtova.

4.4.1 Function Documentation

4.4.1.1 intToHex()

```
string intToHex (
          int num )
```

Funkcija koja konvertuje integer u hexa vrednost.

4.4.1.2 makeTwoBytes()

```
string makeTwoBytes ( {\tt string}\ hex\ )
```

Pravi dva bajta u hexa predstavu.

4.4.1.3 makeWord()

```
string makeWord (

string first,

string second,

string thrid,

string fourth,

string fifth,

string sixst,

string seventh)
```

Pravi rec za masinski kod u velicini od 3 do 7 bajtova.

4.5 C:/Users/DUSAN/Desktop/ss PROJEKAT/FlinkStruct.h File Reference

Classes

struct Flink_Node

Jedan cvor u listi Flink(lista koja pamti gde se pojavljuje simbol)

4.6 C:/Users/DUSAN/Desktop/ss PROJEKAT/main.cpp File Reference

```
#include <iostream>
#include <fstream>
#include <string>
#include <regex>
#include "RegexSearch.h"
#include "SymbolTable.h"
#include "SectionTable.h"
#include "Relocation.h"
#include "outputData.h"
```

Functions

• int **main** ()

4.6.1 Function Documentation

4.6.1.1 main()

```
int main ( )
```

4.7 C:/Users/DUSAN/Desktop/ss PROJEKAT/outputData.cpp File Reference

```
#include <iostream>
#include <fstream>
#include <ostream>
#include <iomanip>
#include "outputData.h"
#include "SymbolTable.h"
#include "RegexSearch.h"
#include "SectionTable.h"
#include "Relocation.h"
```

Functions

• void writeData ()

Ispisuje u izlazni fajl sve podatke.

• void writeErrorDest ()

Ispisuje gresku u det operandu.

• void writeExternError ()

Ispisuje gresku u extern ako je simbol dva puta definisan.

void writeErrorNotDefined ()

Ispisuje gresku ako simbol nije definisan.

4.7.1 Function Documentation

4.7.1.1 writeData()

```
void writeData ( )
```

Ispisuje u izlazni fajl sve podatke.

4.7.1.2 writeErrorDest()

```
void writeErrorDest ( )
```

Ispisuje gresku u det operandu.

4.7.1.3 writeErrorNotDefined()

```
void writeErrorNotDefined ( )
```

Ispisuje gresku ako simbol nije definisan.

4.7.1.4 writeExternError()

```
void writeExternError ( )
```

Ispisuje gresku u extern ako je simbol dva puta definisan.

4.8 C:/Users/DUSAN/Desktop/ss PROJEKAT/outputData.h File Reference

Functions

· void writeData ()

Ispisuje u izlazni fajl sve podatke.

• void writeErrorDest ()

Ispisuje gresku u det operandu.

• void writeExternError ()

Ispisuje gresku u extern ako je simbol dva puta definisan.

• void writeErrorNotDefined ()

Ispisuje gresku ako simbol nije definisan.

4.8.1 Function Documentation

4.8.1.1 writeData()

```
void writeData ( )
```

Ispisuje u izlazni fajl sve podatke.

4.8.1.2 writeErrorDest()

```
void writeErrorDest ( )
```

Ispisuje gresku u det operandu.

4.8.1.3 writeErrorNotDefined()

```
void writeErrorNotDefined ( )
```

Ispisuje gresku ako simbol nije definisan.

4.8.1.4 writeExternError()

```
void writeExternError ( )
```

Ispisuje gresku u extern ako je simbol dva puta definisan.

4.9 C:/Users/DUSAN/Desktop/ss PROJEKAT/RegexSearch.cpp File Reference

```
#include "RegexSearch.h"
#include "SymbolTable.h"
#include <regex>
#include <string>
#include "DigitConvert.h"
#include "Adressing.h"
#include "SectionTable.h"
#include "Relocation.h"
#include "outputData.h"
```

Functions

• bool searchInsNoArg (string &line, int &code)

Proverava da li je instrukcija bez argumenata.

· bool searchLabel (string &line, string &arg, int &code)

Poverava da li je labela.

• bool **searchins** (string &line, string &arg, int &code)

Proverava da li je instrukcija sa jednim argumentom.

• bool **searchIns2** (string &line, string &arg1, string &arg2, int &code)

Proverava da li je instrukcija sa dva argumenta.

• bool searchSWB (string &line)

Poverava da li je procitana linija .word , .skip ili . byte.

• bool **searchEG** (string &line)

Ispisuje u .global ili .extern.

• bool searchEqu (string &line)

Poverava da li je .equ izraz.

• bool searchSection (string &line)

Ispituje da li je sekcija.

• void adressing (string line, char &c, string ins)

Proverava koje je adresiranje.

• int makeFirstByte (int code, char c)

Pravi prvi bajt za masinski kod.

• string makeSecondByte (string arg, char c, string &thirdByte, string &fourthByte)

Pravi bajtove od 3 do 7 za masinski kod.

• bool countEqu (string &arg, int &equSection)

Racuna .equ izraz.

• void putInEquList (string arg1, string arg2)

Dodaje u listu izraz koji ne moze da se izracuna odmah.

• string changeArg (string arg1)

Menja argumen pc u r7 radi lakseg racunanja kasnije.

void countAllEques ()

Racuna sve .equ izraze koje nisu mogli biti izracunati tokom prolaska.

Variables

• list< equNode > equList

Lista koja cuva .equ izraze.

- bool jump = false
- bool firstArg = false
- bool oneArg = false
- bool lowHigh = false
- bool inlmmed = false

4.9.1 Function Documentation

4.9.1.1 adressing()

```
void adressing (
    string line,
    char & c,
    string ins )
```

Proverava koje je adresiranje.

4.9.1.2 changeArg()

```
string changeArg ( string \ arg1 \ )
```

Menja argumen pc u r7 radi lakseg racunanja kasnije.

4.9.1.3 countAllEques()

```
void countAllEques ( )
```

Racuna sve .equ izraze koje nisu mogli biti izracunati tokom prolaska.

4.9.1.4 countEqu()

```
bool countEqu (  \mbox{string \& arg,}   \mbox{int \& equSection )}
```

Racuna .equ izraz.

4.9.1.5 makeFirstByte()

```
int makeFirstByte (  \quad \text{int } code, \\ \quad \text{char } c \text{ )}
```

Pravi prvi bajt za masinski kod.

4.9.1.6 makeSecondByte()

Pravi bajtove od 3 do 7 za masinski kod.

4.9.1.7 putInEquList()

Dodaje u listu izraz koji ne moze da se izracuna odmah.

4.9.1.8 searchEG()

```
bool searchEG ( {\tt string \& \it line )}
```

Ispisuje u .global ili .extern.

4.9.1.9 searchEqu()

```
bool search
Equ ( {\tt string ~\&~ \it line~)}
```

Poverava da li je .equ izraz.

4.9.1.10 searchins()

```
bool searchIns (
          string & line,
          string & arg,
          int & code )
```

Proverava da li je instrukcija sa jednim argumentom.

4.9.1.11 searchins2()

Proverava da li je instrukcija sa dva argumenta.

4.9.1.12 searchInsNoArg()

Proverava da li je instrukcija bez argumenata.

4.9.1.13 searchLabel()

Poverava da li je labela.

4.9.1.14 searchSection()

```
bool search
Section ( {\tt string ~\&~ \it line~)}
```

Ispituje da li je sekcija.

4.9.1.15 searchSWB()

```
bool searchSWB ( {\tt string \& \it line )}
```

Poverava da li je procitana linija .word , .skip ili . byte.

4.9.2 Variable Documentation

4.9.2.1 equList

```
list< equNode> equList
```

Lista koja cuva .equ izraze.

4.9.2.2 firstArg

bool firstArg = false

4.9.2.3 inImmed

bool inImmed = false

4.9.2.4 jump

bool jump = false

4.9.2.5 lowHigh

bool lowHigh = false

4.9.2.6 oneArg

bool oneArg = false

4.10 C:/Users/DUSAN/Desktop/ss PROJEKAT/RegexSearch.h File Reference

```
#include <string>
#include <list>
#include <iostream>
```

Classes

• struct equNode

Cvor u listi koja sluzi da racuna .equ izraze.

Functions

• bool searchInsNoArg (string &line, int &code)

Proverava da li je instrukcija bez argumenata.

bool searchLabel (string &line, string &arg, int &code)

Poverava da li je labela.

• bool searchins (string &line, string &arg, int &code)

Proverava da li je instrukcija sa jednim argumentom.

• bool **searchIns2** (string &line, string &arg1, string &arg2, int &code)

Proverava da li je instrukcija sa dva argumenta.

• bool searchEqu (string &line)

Poverava da li je .equ izraz.

• bool searchSWB (string &line)

Poverava da li je procitana linija .word , .skip ili . byte.

• bool **searchEG** (string &line)

Ispisuje u .global ili .extern.

• bool searchSection (string &line)

Ispituje da li je sekcija.

· void adressing (string line, char &c, string ins)

Proverava koje je adresiranje.

• int makeFirstByte (int code, char c)

Pravi prvi bajt za masinski kod.

• string makeSecondByte (string arg, char c, string &thirdByte, string &fourthByte)

Pravi bajtove od 3 do 7 za masinski kod.

• bool countEqu (string &arg1, int &equSection)

Racuna .equ izraz.

• void countAllEques ()

Racuna sve .equ izraze koje nisu mogli biti izracunati tokom prolaska.

• void putInEquList (string arg1, string agr2)

Dodaje u listu izraz koji ne moze da se izracuna odmah.

• string changeArg (string arg1)

Menja argumen pc u r7 radi lakseg racunanja kasnije.

Variables

- bool jump
- · bool firstArg
- bool oneArg
- · bool inImmed
- bool lowHigh
- list< equNode > equList

Lista koja cuva .equ izraze.

4.10.1 Function Documentation

4.10.1.1 adressing()

Proverava koje je adresiranje.

4.10.1.2 changeArg()

```
string changeArg (
     string arg1 )
```

Menja argumen pc u r7 radi lakseg racunanja kasnije.

4.10.1.3 countAllEques()

```
void countAllEques ( )
```

Racuna sve .equ izraze koje nisu mogli biti izracunati tokom prolaska.

4.10.1.4 countEqu()

Racuna .equ izraz.

4.10.1.5 makeFirstByte()

Pravi prvi bajt za masinski kod.

4.10.1.6 makeSecondByte()

Pravi bajtove od 3 do 7 za masinski kod.

4.10.1.7 putInEquList()

Dodaje u listu izraz koji ne moze da se izracuna odmah.

4.10.1.8 searchEG()

```
bool searchEG ( {\tt string \ \& \ line \ )}
```

Ispisuje u .global ili .extern.

4.10.1.9 searchEqu()

Poverava da li je .equ izraz.

4.10.1.10 searchins()

```
bool searchIns (
          string & line,
          string & arg,
          int & code )
```

Proverava da li je instrukcija sa jednim argumentom.

4.10.1.11 searchIns2()

```
bool searchIns2 (
          string & line,
          string & arg1,
          string & arg2,
          int & code )
```

Proverava da li je instrukcija sa dva argumenta.

4.10.1.12 searchInsNoArg()

Proverava da li je instrukcija bez argumenata.

4.10.1.13 searchLabel()

Poverava da li je labela.

4.10.1.14 searchSection()

```
bool search
Section ( {\tt string ~\&~ \it line~)}
```

Ispituje da li je sekcija.

4.10.1.15 searchSWB()

```
bool searchSWB ( string \ \& \ line \ )
```

Poverava da li je procitana linija .word , .skip ili . byte.

4.10.2 Variable Documentation

4.10.2.1 equList

list< equNode> equList [extern]

Lista koja cuva .equ izraze.

4.10.2.2 firstArg

bool firstArg [extern]

4.10.2.3 inImmed

bool inImmed [extern]

4.10.2.4 jump

bool jump [extern]

4.10.2.5 lowHigh

bool lowHigh [extern]

4.10.2.6 oneArg

bool oneArg [extern]

4.11 C:/Users/DUSAN/Desktop/ss PROJEKAT/Relocation.cpp File Reference

```
#include <iostream>
#include <string>
#include <list>
#include "Relocation.h"
#include "SymbolTable.h"
#include "DigitConvert.h"
#include "RegexSearch.h"
#include "SectionTable.h"
```

Functions

• void addToPomPcList (int lc, int next, string symbol, int section)

Dodaje u listu koja pomaze u racunanju pomeraja za pc rel.

• void fillPomBytes ()

Popunjava bajte kod pc rel zapisa.

void addToRelTable (string arg, int adressing)

Dodaje relokacioni zapis u tabelu.

• void fillRelTable ()

Popunjava relokacionu tabelu.

· void addList ()

Dodaje novu listu za relokacione zapise.

Variables

```
list< pomNode > pomPCList
```

vector< list< relNode >> relTables

Relokacioni zapisi.

• int **nextLC** = 0

4.11.1 Function Documentation

4.11.1.1 addList()

```
void addList ( )
```

Dodaje novu listu za relokacione zapise.

4.11.1.2 addToPomPcList()

```
void addToPomPcList (
    int lc,
    int next,
    string symbol,
    int section )
```

Dodaje u listu koja pomaze u racunanju pomeraja za pc rel.

4.11.1.3 addToRelTable()

```
void addToRelTable (
     string arg,
     int adressing)
```

Dodaje relokacioni zapis u tabelu.

4.11.1.4 fillPomBytes()

```
void fillPomBytes ( )
```

Popunjava bajte kod pc rel zapisa.

4.11.1.5 fillRelTable()

```
void fillRelTable ( )
```

Popunjava relokacionu tabelu.

4.11.2 Variable Documentation

4.11.2.1 nextLC

```
int nextLC = 0
```

4.11.2.2 pomPCList

list< pomNode> pomPCList

4.11.2.3 relTables

```
vector< list< relNode> > relTables
```

Relokacioni zapisi.

4.12 C:/Users/DUSAN/Desktop/ss PROJEKAT/Relocation.h File Reference

```
#include <string>
#include <list>
#include <vector>
```

Classes

struct pomNode

Cvor u listi koja sluzi da racuna .equ izraze.

• struct relNode

Cvor u listi koja cuva relokacione zapise.

Functions

• void addToRelTable (string arg, int adressing)

Dodaje relokacioni zapis u tabelu.

• void addList ()

Dodaje novu listu za relokacione zapise.

void addToPomPcList (int lc, int next, string symbol, int section)

Dodaje u listu koja pomaze u racunanju pomeraja za pc rel.

• void fillPomBytes ()

Popunjava bajte kod pc rel zapisa.

• void fillRelTable ()

Popunjava relokacionu tabelu.

Variables

vector< list< relNode >> relTables

Relokacioni zapisi.

- list< pomNode > pomPCList
- int nextLC

4.12.1 Function Documentation

4.12.1.1 addList()

```
void addList ( )
```

Dodaje novu listu za relokacione zapise.

4.12.1.2 addToPomPcList()

```
void addToPomPcList (
    int lc,
    int next,
    string symbol,
    int section )
```

Dodaje u listu koja pomaze u racunanju pomeraja za pc rel.

4.12.1.3 addToRelTable()

Dodaje relokacioni zapis u tabelu.

4.12.1.4 fillPomBytes()

```
void fillPomBytes ( )
```

Popunjava bajte kod pc rel zapisa.

4.12.1.5 fillRelTable()

```
void fillRelTable ( )
```

Popunjava relokacionu tabelu.

4.12.2 Variable Documentation

4.12.2.1 nextLC

```
int nextLC [extern]
```

4.12.2.2 pomPCList

```
list< pomNode> pomPCList [extern]
```

4.12.2.3 relTables

```
vector< list< relNode> > relTables [extern]
```

Relokacioni zapisi.

4.13 C:/Users/DUSAN/Desktop/ss PROJEKAT/SectionTable.cpp File Reference

```
#include "SectionTable.h"
#include <iostream>
```

Functions

• void setSection (string name, int locationCounter)

Postavlja sekciju u tabeli sekcija.

• int findLC (int section)

Trazi location counter na kome se nalazi sekcija.

Variables

list< sectionNode > sectionTable
 Tabela sekcija.

4.13.1 Function Documentation

4.13.1.1 findLC()

Trazi location counter na kome se nalazi sekcija.

4.13.1.2 setSection()

Postavlja sekciju u tabeli sekcija.

4.13.2 Variable Documentation

4.13.2.1 sectionTable

```
list< sectionNode> sectionTable
```

Tabela sekcija.

4.14 C:/Users/DUSAN/Desktop/ss PROJEKAT/SectionTable.h File Reference

```
#include <iostream>
#include <list>
#include <string>
```

Classes

struct sectionNode

Cvor u listi za sekcije.

Functions

• void setSection (string name, int locationCounter)

Postavlja sekciju u tabeli sekcija.

• int findLC (int section)

Trazi location counter na kome se nalazi sekcija.

Variables

list< sectionNode > sectionTable
 Tabela sekcija.

4.14.1 Function Documentation

4.14.1.1 findLC()

Trazi location counter na kome se nalazi sekcija.

4.14.1.2 setSection()

Postavlja sekciju u tabeli sekcija.

4.14.2 Variable Documentation

4.14.2.1 sectionTable

```
list< sectionNode> sectionTable [extern]
```

Tabela sekcija.

4.15 C:/Users/DUSAN/Desktop/ss PROJEKAT/SymbolTable.cpp File Reference

```
#include <string>
#include <iostream>
#include <list>
#include <regex>
#include "SymbolTable.h"
#include "FlinkStruct.h"
#include "RegexSearch.h"
#include "DigitConvert.h"
#include "SectionTable.h"
#include "outputData.h"
```

Functions

• void setSymbol (string arg, int &lc, char c, int section)

Postavlja simbol u tabeli simbola.

· void setSymbolLabel (string arg, int &lc, int section, bool equ, int equs)

Dodaje labelu u tabelu simbola.

• void setSymbolExtern (string arg, char c)

Dodaje extern simbol u tabelu simbola.

void setSymbolGlobal (string arg, char c, int section)

Cvor u listi koja sluzi da racuna .equ izraze.

void writeList (list< Flink_Node > lista)

Cvor u listi koja sluzi da racuna .equ izraze.

• bool findSymbol (string name, int &symbol)

Trazi simbol u tabeli simbola.

• bool **findSymbolSEC** (string name, int &symbol, int &sec)

Trazi sekciju datog simbola.

• bool findSymbolBP (string name, int &symbol, int &size)

Trazi simbol za backpatching.

• void findSymbolPC (string name, int &value, int & section, char &c)

Trazi simbol za pc rel adresiranje i sredjivanje masinskog koda.

void findSymbolREL (string name, int & section, char &LG)

Trazi simol kod racunanja equ izraza.

• void **findSymbolRELOCATION** (string name, int & section, char &LG, bool &isEqu, int &equSection)

Trazi simbol za u tabelu relokacija.

void backpatching ()

Funkcija koja vrsi backpatching.

• void changeLC ()

Menja location counter.

Variables

- list< symbolNode > symbol_Table
- vector< string > opCode
- bool equ = false
- int locationCounter = 0
- int section = 0
- bool equSearched = false

4.15.1 Function Documentation

4.15.1.1 backpatching()

void backpatching ()

Funkcija koja vrsi backpatching.

4.15.1.2 changeLC()

```
void changeLC ( )
```

Menja location counter.

4.15.1.3 findSymbol()

Trazi simbol u tabeli simbola.

4.15.1.4 findSymbolBP()

Trazi simbol za backpatching.

4.15.1.5 findSymbolPC()

Trazi simbol za pc rel adresiranje i sredjivanje masinskog koda.

4.15.1.6 findSymbolREL()

Trazi simol kod racunanja equ izraza.

4.15.1.7 findSymbolRELOCATION()

Trazi simbol za u tabelu relokacija.

4.15.1.8 findSymbolSEC()

Trazi sekciju datog simbola.

4.15.1.9 setSymbol()

Postavlja simbol u tabeli simbola.

4.15.1.10 setSymbolExtern()

Dodaje extern simbol u tabelu simbola.

4.15.1.11 setSymbolGlobal()

Cvor u listi koja sluzi da racuna .equ izraze.

4.15.1.12 setSymbolLabel()

```
void setSymbolLabel (
    string arg,
    int & lc,
    int section,
    bool equ,
    int equs)
```

Dodaje labelu u tabelu simbola.

4.15.1.13 writeList()

```
void writeList ( \label{list_Node} {\tt list<} \ \ {\tt Flink\_Node} \ > \ {\tt lista} \ )
```

Cvor u listi koja sluzi da racuna .equ izraze.

4.15.2 Variable Documentation

4.15.2.1 equ

```
bool equ = false
```

4.15.2.2 equSearched

```
bool equSearched = false
```

4.15.2.3 locationCounter

```
int locationCounter = 0
```

4.15.2.4 opCode

vector<string> opCode

4.15.2.5 section

```
int section = 0
```

4.15.2.6 symbol_Table

```
list< symbolNode> symbol_Table
```

4.16 C:/Users/DUSAN/Desktop/ss PROJEKAT/SymbolTable.h File Reference

```
#include <string>
#include <list>
#include <vector>
#include "FlinkStruct.h"
```

Classes

• struct symbolNode

Covr u listi rabele simbola.

Functions

• void setSymbol (string arg, int &lc, char c, int section)

Postavlja simbol u tabeli simbola.

• void **setSymbolLabel** (string arg, int &lc, int **section**, bool **equ**, int equsection)

Dodaje labelu u tabelu simbola.

• void **setSymbolExtern** (string arg, char c)

Dodaje extern simbol u tabelu simbola.

· void changeLC ()

Menja location counter.

• void setSymbolGlobal (string arg, char c, int section)

Cvor u listi koja sluzi da racuna .equ izraze.

void writeList (list< Flink_Node > lista)

Cvor u listi koja sluzi da racuna .equ izraze.

• bool findSymbol (string name, int &symbol)

Trazi simbol u tabeli simbola.

• bool findSymbolSEC (string name, int &symbol, int &sec)

Trazi sekciju datog simbola.

• bool **findSymbolBP** (string name, int &symbol, int &size)

Trazi simbol za backpatching.

• void findSymbolPC (string name, int &value, int & section, char &c)

Trazi simbol za pc rel adresiranje i sredjivanje masinskog koda.

void findSymbolREL (string name, int & section, char &LG)

Trazi simol kod racunanja equ izraza.

• void findSymbolRELOCATION (string name, int & section, char &LG, bool &isEqu, int &equSection)

Trazi simbol za u tabelu relokacija.

• void backpatching ()

Funkcija koja vrsi backpatching.

Variables

- list< $symbolNode > symbol_Table$
- vector< string > opCode
- int locationCounter
- bool equSearched
- int section
- bool equ

4.16.1 Function Documentation

4.16.1.1 backpatching()

```
void backpatching ( )
```

Funkcija koja vrsi backpatching.

4.16.1.2 changeLC()

```
void changeLC ( )
```

Menja location counter.

4.16.1.3 findSymbol()

Trazi simbol u tabeli simbola.

4.16.1.4 findSymbolBP()

Trazi simbol za backpatching.

4.16.1.5 findSymbolPC()

Trazi simbol za pc rel adresiranje i sredjivanje masinskog koda.

4.16.1.6 findSymbolREL()

Trazi simol kod racunanja equ izraza.

4.16.1.7 findSymbolRELOCATION()

Trazi simbol za u tabelu relokacija.

4.16.1.8 findSymbolSEC()

Trazi sekciju datog simbola.

4.16.1.9 setSymbol()

Postavlja simbol u tabeli simbola.

4.16.1.10 setSymbolExtern()

Dodaje extern simbol u tabelu simbola.

4.16.1.11 setSymbolGlobal()

Cvor u listi koja sluzi da racuna .equ izraze.

4.16.1.12 setSymbolLabel()

```
void setSymbolLabel (
    string arg,
    int & lc,
    int section,
    bool equ,
    int equsection )
```

Dodaje labelu u tabelu simbola.

4.16.1.13 writeList()

```
void writeList ( \label{list_Node} {\tt list<} \ \ {\tt Flink\_Node} \ > \ {\tt lista} \ )
```

Cvor u listi koja sluzi da racuna .equ izraze.

4.16.2 Variable Documentation

4.16.2.1 equ

bool equ [extern]

4.16.2.2 equSearched

bool equSearched [extern]

4.16.2.3 locationCounter

int locationCounter [extern]

4.16.2.4 opCode

vector<string> opCode [extern]

4.16.2.5 section

int section [extern]

4.16.2.6 symbol_Table

list< **symbolNode**> symbol_Table [extern]

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