

# Università degli Studi di Brescia

Department of Information Engineering



## A compiler for the SOL language

Compilers' course final project

### **Professor**

Lamperti Gianfranco

### **Students**

Orizio Riccardo

Rizzini Mattia

Zucchelli Maurizio

Academic Year 2013/2014

# Contents

<b>I</b>	<b>Introduction to SOL</b>	<b>1</b>
<b>1</b>	<b>SOL language introduction and examples</b>	<b>2</b>
1.1	A full sol program . . . . .	2
<b>2</b>	<b>SOL language syntax specification</b>	<b>3</b>
<b>3</b>	<b>SOL language semantics specification</b>	<b>4</b>
<b>II</b>	<b>The Compiler</b>	<b>5</b>
<b>4</b>	<b>Lexical and Syntactical analysis</b>	<b>6</b>
<b>5</b>	<b>Semantical analysis</b>	<b>7</b>
<b>6</b>	<b>Code generation</b>	<b>8</b>
6.1	P-code specification . . . . .	8
<b>III</b>	<b>The Virtual Machine</b>	<b>9</b>
<b>7</b>	<b>P-code execution</b>	<b>10</b>
<b>8</b>	<b>Advanced I/O handling</b>	<b>11</b>
	<b>Conclusions</b>	<b>12</b>

# Part I

## Introduction to SOL

# Chapter 1

## SOL language introduction and examples

### 1.1 A full sol program

## Chapter 2

# SOL language syntax specification

## Chapter 3

# SOL language semantics specification

# Part II

## The Compiler

## Chapter 4

# Lexical and Syntactical analysis



# Chapter 5

## Semantical analysis

# Chapter 6

## Code generation

### 6.1 P-code specification

# Part III

## The Virtual Machine

## Chapter 7

### P-code execution

## Chapter 8

### Advanced I/O handling

## Conclusions