

**Technická univerzita v Košiciach  
Fakulta elektrotechniky a informatiky**

**Moja záverečná práca  
(šablóna)**

**Bakalárska práca**

**2016**

**Janko Hraško**

**Technická univerzita v Košiciach  
Fakulta elektrotechniky a informatiky**

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(šablóna)**

**Bakalárska práca**

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Študijný odbor: 9.2.1. Informatika  
Školiace pracovisko: Katedra počítačov a informatiky (KPI)  
Školiteľ: Leslie Lamport  
Konzultant: Donald E. Knuth

**Košice 2016**

**Janko Hraško**

Názov práce: Moja záverečná práca (šablóna)

Pracovisko: Katedra počítačov a informatiky, Technická univerzita v Košiciach

Autor: Janko Hraško

Školiteľ: Leslie Lamport

Konzultant: Donald E. Knuth

Dátum: 13. 5. 2016

Kľúčové slová: L<sup>A</sup>T<sub>E</sub>X, programovanie, sadzba textu

Abstrakt: Lorem ipsum dolor sit amet, consectetur adipiscing elit. Etiam lobortis facilisis sem. Nullam nec mi et neque pharetra sollicitudin. Praesent imperdiet mi nec ante. Donec ullamcorper, felis non sodales commodo, lectus velit ultrices augue, a dignissim nibh lectus placerat pede. Vivamus nunc nunc, molestie ut, ultricies vel, semper in, velit. Ut porttitor. Praesent in sapien. Lorem ipsum dolor sit amet, consectetur adipiscing elit. Duis fringilla tristique neque. Sed interdum libero ut metus. Pellentesque placerat. Nam rutrum augue a leo. Morbi sed elit sit amet ante lobortis sollicitudin. Praesent blandit blandit mauris. Praesent lectus tellus, aliquet aliquam, luctus a, egestas a, turpis. Mauris lacinia lorem sit amet ipsum. Nunc quis urna dictum turpis accumsan semper.

Thesis title: My thesis (the skeleton)

Department: Department of Computers and Informatics, Technical University of Košice

Author: Janko Hraško

Supervisor: Leslie Lamport

Tutor: Donald E. Knuth

Date: 13. 5. 2016

Keywords: L<sup>A</sup>T<sub>E</sub>X, programming, typesetting

Abstract: Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

Tu vložte zadávací list pomocí příkazu  
`\thesispec{cesta/k/suboru/so/zadavacim.listom}`  
v preamble dokumentu.

### **Čestné vyhlásenie**

Vyhlasujem, že som záverečnú prácu vypracoval(a) samostatne s použitím uvedenej odbornej literatúry.

Košice, 13.5.2016

.....

*Vlastnoručný podpis*

## Podakovanie

Na tomto mieste by som rád poďakoval svojmu vedúcemu práce za jeho čas a odborné vedenie počas riešenia mojej záverečnej práce.

Rovnako by som sa rád poďakoval svojim rodičom a priateľom za ich podporu a povzbudzovanie počas celého môjho štúdia.

V neposlednom rade by som sa rád poďakoval pánom *Donaldovi E. Knuthovi* a *Leslie Lamportovi* za typografický systém  $\text{\LaTeX}$ , s ktorým som strávil množstvo nezabudnuteľných večerov.

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# Motivácia

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# 1 Formulácia úlohy

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Text záverečnej práce musí obsahovať kapitolu s formuláciou úlohy resp. úloh riešených v rámci záverečnej práce. V tejto časti autor rozvedie spôsob, akým budú riešené úlohy a tézy formulované v zadaní práce. Taktiež uvedie prehľad podmienok riešenia.

## 2 Súvisiaca práca

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### 2.1 Lorem ipsum

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### 2.2 Aliquam eu malesuada urna

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- v knihe [1] autor prezentuje naozaj odvážne myšlienky
- nemenej zaujímavé výsledky publikuje ďalší autor v článku [2]
- v konferenčnom príspevku [3] sú uvedené tiež zaujímavé veci
- $\text{\LaTeX}$ <sup>1</sup> je typografický jazyk

Given a set of numbers, there are elementary methods to compute its Greatest Common Divisor, which is abbreviated GCD. This process is similar to that used for the Least Common Multiple (LCM).

### 2.2.1 Donec vehicula consequat

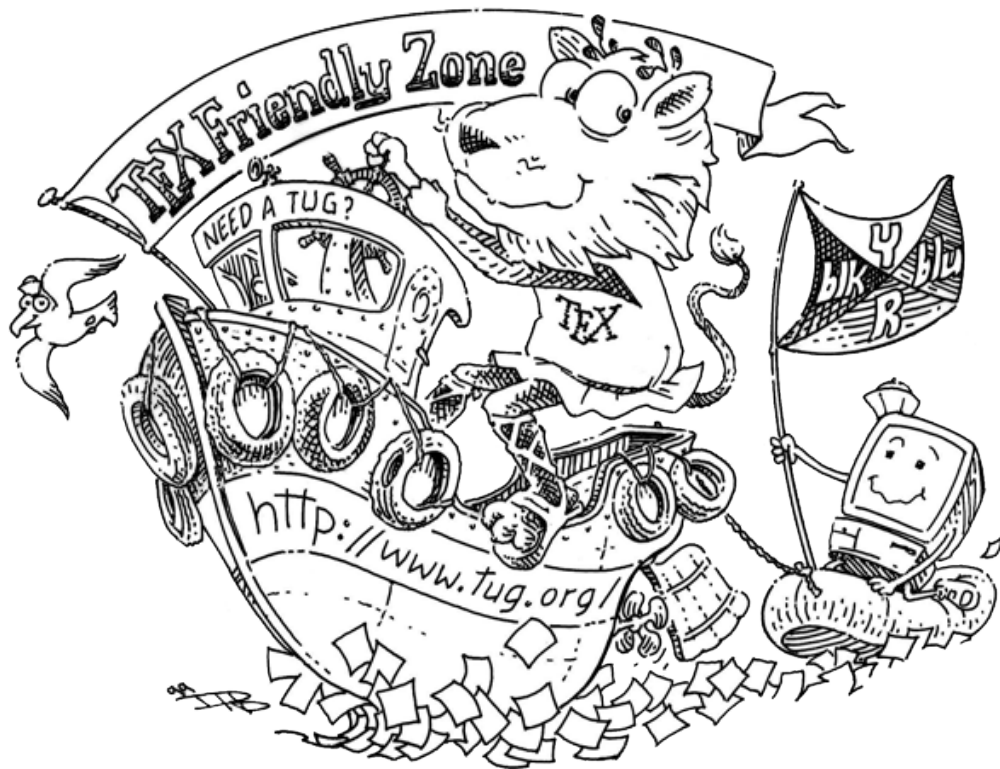
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<sup>1</sup><https://www.latex-project.org/>


Obr. 2.1: L<sup>A</sup>T<sub>E</sub>X Friendly Zone

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### 2.2.3 Vestibulum tristique elementum varius

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Tabuľka 2.1: Country list

Country List			
Country Name or Area Name	ISO ALPHA 2 Code	ISO ALPHA 3 Code	ISO numeric Code
Afghanistan	AF	AFG	004
Aland Islands	AX	ALA	248
Albania	AL	ALB	008
Algeria	DZ	DZA	012
American Samoa	AS	ASM	016
Andorra	AD	AND	020
Angola	AO	AGO	024

## 2.3 Phasellus id pretium neque

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### 3 Metodológia

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## 4 Implementácia

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## 5 Dosiahnuté výsledky

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## 6 Interpretácia výsledkov

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## 7 Further Work

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## 8 Záver

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# Literatúra

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- [1] Peter Babington. *The title of the work*. 3. vyd. Zv. 4. 10. An optional note. The address: The name of the publisher, júl 1993. ISBN: 3257227892.
- [2] Peter Adams. "The title of the work". In: *The name of the journal* 4.2 (júl 1993). An optional note, s. 201–213.
- [3] Peter Draper. "The title of the work". In: *The title of the book*. Ed. The editor. Zv. 4. 5. An optional note. The organization. The address of the publisher: The publisher, júl 1993, s. 213.

# Zoznam skratiek

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**GCD** Greatest Common Divisor.

**LCM** Least Common Multiple.

# Zoznam príloh

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**Príloha A** Karel Language Reference

**Príloha B** CD médium – záverečná práca v elektronickej podobe,

**Príloha C** Používateľská príručka

**Príloha D** Systémová príručka

# A Karel Language Reference

---

## Karel's Primitives

- `void movek()` - Moves *Karel* one intersection forward.
- `void turn_left()` - Pivots *Karel* 90 degrees left.
- `void pick_beeper()` - Takes a beeper from the current intersection and puts it in the beeper bag.
- `void put_beeper()` - Takes a beeper from the beeper bag and puts it at the current intersection.
- `void turn_on(char* path)` - Turns *Karel* on.
- `void turn_off()` - Turns *Karel* off.

## Karel's Sensors

- `int front_is_clear()` - Returns 1 if there is no wall directly in front of *Karel*. 0 if there is.
- `int right_is_clear()` - Returns 1 if there is no wall immediately to *Karel's* right. 0 if there is.
- `int beepers_present()` - Returns 1 if *Karel* is standing at an intersection that has a beeper. 0 otherwise.
- `int facing_north()` - Returns 1 if *Karel* is facing north. 0 otherwise.
- `int beepers_in_bag()` - Returns 1 if there is at least one beeper in *Karel's* beeper bag. 0 if the beeper bag is empty.

## Misc Functions

- `void set_step_delay(int)` - Sets delay of one *Karel's* step in milliseconds.
- `loop(int)` - Repeats *Karel's* instruction in a loop.