



# Transitions and Trees: An Introduction to Structural Operational Semantics

*By Hans Hüttel*

Download now

Read Online ➔

## Transitions and Trees: An Introduction to Structural Operational Semantics

By Hans Hüttel

Structural operational semantics is a simple, yet powerful mathematical theory for describing the behaviour of programs in an implementation-independent manner. This book provides a self-contained introduction to structural operational semantics, featuring semantic definitions using big-step and small-step semantics of many standard programming language constructs, including control structures, structured declarations and objects, parameter mechanisms and procedural abstraction, concurrency, nondeterminism and the features of functional programming languages. Along the way, the text introduces and applies the relevant proof techniques, including forms of induction and notions of semantic equivalence (including bisimilarity). Thoroughly class-tested, this book has evolved from lecture notes used by the author over a 10-year period at Aalborg University to teach undergraduate and graduate students. The result is a thorough introduction that makes the subject clear to students and computing professionals without sacrificing its rigour. No experience with any specific programming language is required.

↓ [Download Transitions and Trees: An Introduction to Structur ...pdf](#)

📖 [Read Online Transitions and Trees: An Introduction to Struct ...pdf](#)

# Transitions and Trees: An Introduction to Structural Operational Semantics

*By Hans Hüttel*

## Transitions and Trees: An Introduction to Structural Operational Semantics By Hans Hüttel

Structural operational semantics is a simple, yet powerful mathematical theory for describing the behaviour of programs in an implementation-independent manner. This book provides a self-contained introduction to structural operational semantics, featuring semantic definitions using big-step and small-step semantics of many standard programming language constructs, including control structures, structured declarations and objects, parameter mechanisms and procedural abstraction, concurrency, nondeterminism and the features of functional programming languages. Along the way, the text introduces and applies the relevant proof techniques, including forms of induction and notions of semantic equivalence (including bisimilarity). Thoroughly class-tested, this book has evolved from lecture notes used by the author over a 10-year period at Aalborg University to teach undergraduate and graduate students. The result is a thorough introduction that makes the subject clear to students and computing professionals without sacrificing its rigour. No experience with any specific programming language is required.

## Transitions and Trees: An Introduction to Structural Operational Semantics By Hans Hüttel

### Bibliography

- Sales Rank: #3006092 in Books
- Published on: 2010-06-07
- Released on: 2010-04-29
- Original language: English
- Number of items: 1
- Dimensions: 9.72" h x .59" w x 6.85" l, 1.14 pounds
- Binding: Paperback
- 290 pages

 [Download Transitions and Trees: An Introduction to Structur ...pdf](#)

 [Read Online Transitions and Trees: An Introduction to Struct ...pdf](#)

## **Download and Read Free Online Transitions and Trees: An Introduction to Structural Operational Semantics By Hans Hüttel**

---

### **Editorial Review**

#### **Review**

"Each chapter of the book contains various examples and problems, making it very suitable for teaching purposes. There are more than enough bibliographical directions for starting a thorough study of any of the presented topics. The book does not limit itself to structural operational semantics; it provides introductory information on several related topics. All of these aspects make the book a well-rounded presentation on the subject. The book can be successfully used by students, professionals, and researchers as a good introduction to the semantics of programming languages that will help them describe and reason about the behavior of programs."

G. Ciobanu, Computing Reviews

"Transitions and Trees is a detailed, rigorous, and thorough textbook on structural operational semantics on an advanced undergraduate level. The book's strength is the comprehensive coverage of many aspects of structural operational semantics. Transitions and Trees is generally well written and the large number of examples and interspersed exercises help in understanding the material."

Stephan Falke for SIGACT News

#### **About the Author**

Hans Hüttel is Associate Professor in the Department of Computer Science at Aalborg University, Denmark.

### **Users Review**

#### **From reader reviews:**

##### **Rita Heil:**

Do you have something that you like such as book? The reserve lovers usually prefer to opt for book like comic, small story and the biggest one is novel. Now, why not attempting Transitions and Trees: An Introduction to Structural Operational Semantics that give your satisfaction preference will be satisfied through reading this book. Reading behavior all over the world can be said as the means for people to know world far better then how they react to the world. It can't be explained constantly that reading behavior only for the geeky person but for all of you who wants to end up being success person. So , for all you who want to start examining as your good habit, you can pick Transitions and Trees: An Introduction to Structural Operational Semantics become your own personal starter.

##### **Lori Hunt:**

The book untitled Transitions and Trees: An Introduction to Structural Operational Semantics contain a lot of information on the idea. The writer explains your girlfriend idea with easy approach. The language is very clear to see all the people, so do definitely not worry, you can easy to read this. The book was published by famous author. The author will bring you in the new era of literary works. You can easily read this book because you can keep reading your smart phone, or product, so you can read the book within anywhere and anytime. In a situation you wish to purchase the e-book, you can open up their official web-site and order it. Have a nice read.

**Douglas Whatley:**

You could spend your free time you just read this book this reserve. This Transitions and Trees: An Introduction to Structural Operational Semantics is simple to bring you can read it in the playground, in the beach, train and soon. If you did not have got much space to bring often the printed book, you can buy the actual e-book. It is make you simpler to read it. You can save the actual book in your smart phone. Consequently there are a lot of benefits that you will get when one buys this book.

**Sandra McNulty:**

As we know that book is essential thing to add our know-how for everything. By a guide we can know everything we would like. A book is a list of written, printed, illustrated or even blank sheet. Every year seemed to be exactly added. This e-book Transitions and Trees: An Introduction to Structural Operational Semantics was filled about science. Spend your extra time to add your knowledge about your scientific disciplines competence. Some people has diverse feel when they reading any book. If you know how big advantage of a book, you can feel enjoy to read a book. In the modern era like today, many ways to get book which you wanted.

**Download and Read Online Transitions and Trees: An Introduction to Structural Operational Semantics By Hans Hüttel  
#SXYLKMZ1B20**

# **Read Transitions and Trees: An Introduction to Structural Operational Semantics By Hans Hüttel for online ebook**

Transitions and Trees: An Introduction to Structural Operational Semantics By Hans Hüttel Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Transitions and Trees: An Introduction to Structural Operational Semantics By Hans Hüttel books to read online.

## **Online Transitions and Trees: An Introduction to Structural Operational Semantics By Hans Hüttel ebook PDF download**

**Transitions and Trees: An Introduction to Structural Operational Semantics By Hans Hüttel Doc**

**Transitions and Trees: An Introduction to Structural Operational Semantics By Hans Hüttel Mobipocket**

**Transitions and Trees: An Introduction to Structural Operational Semantics By Hans Hüttel EPub**

**SXYLKMZ1B20: Transitions and Trees: An Introduction to Structural Operational Semantics By Hans Hüttel**