



# The Handbook of Formal Methods in Human-Computer Interaction [

Weyers, Benjamin

Bowen, Judy

Dix, Alan

Palanque, Philippe

Springer International Publishing :

Imprint: Springer,

2017

Monografía

This book provides a comprehensive collection of methods and approaches for using formal methods within Human-Computer Interaction (HCI) research, the use of which is a prerequisite for usability and user-experience (UX) when engineering interactive systems. World-leading researchers present methods, tools and techniques to design and develop reliable interactive systems, offering an extensive discussion of the current state-of-the-art with case studies which highlight relevant scenarios and topics in HCI as well as a presenting current trends and gaps in research and future opportunities and developments within this emerging field. The Handbook of Formal Methods in Human Computer Interaction is intended for HCI researchers and engineers of interactive systems interested in facilitating formal methods into their research or practical work

<https://rebiunoda.pro.baratznet.cloud:38443/OpacDiscovery/public/catalog/detail/b2FpOmNlbgVlcmF0aW9uOmVzLmJhcmF0ei5yZW4vMTkyMzMxNDQ>

**Título:** The Handbook of Formal Methods in Human-Computer Interaction [Recurso electrónico] edited by Benjamin Weyers, Judy Bowen, Alan Dix, Philippe Palanque

**Editorial:** Cham Springer International Publishing Imprint: Springer 2017

**Descripción física:** 1 online resource (XIV, 575 p. 205 illus., 133 illus. in color.) online resource

**Mención de serie:** HumanComputer Interaction Series 1571-5035

**Documento fuente:** Springer eBooks

**Contenido:** Foreword -- Part I: Introduction -- State of the Art in Formal Methods in HCI -- Topics of formal methods in HCI -- Trends and Gaps -- Case Studies -- Part II: Modeling, Execution and Simulation -- Visual and Formal Modeling of Modularized and Executable User Interface Models -- Combining Models for Interactive System Modelling -- Activity Modelling for Low-Intention Interaction -- Modelling the User Physigrams Modeling Physical Device Characteristics Interaction -- Formal Description of Adaptive Interactive Systems based on Executable User Interface Models -- Part II: Analysis, Validation and Verification -- Learning Safe Interactions and Full-Control -- Reasoning About Interactive Systems in Dynamic Situations of Use Enhanced Operator Function

Model (EOFM): A Task Analytic Modeling Formalism for Including Human -- Behavior in the Verification of Complex Systems -- The Specification and Analysis of Use Properties of a Nuclear -- Control System -- Formal Analysis of Multiple Coordinated HMI Systems -- Part IV: Future Opportunities and Developments -- Domain-Specific Modelling for Human-Computer Interaction -- Exploiting Action Theory as a Framework for Analysis and Design of Formal Methods Approaches: Application to the CIRCUS Integrated Development Environment -- A Public Tool Suite for Modelling Interactive Applications -- Formal Modeling of App-Ensembles -- Dealing with Faults during Operations: Beyond Classical Use of Formal Methods

**Restricciones de acceso:** Acceso restringido a usuarios UCM = For UCM patrons only

**ISBN:** 9783319518381 9783319518374 print)

**Autores:** Weyers, Benjamin Bowen, Judy Dix, Alan Palanque, Philippe

**Entidades:** SpringerLink (Online service)

**Enlace a formato físico adicional:** Printed edition 9783319518374

**Punto acceso adicional serie-Título:** HumanComputer Interaction Series 1571-5035

---

### **Baratz Innovación Documental**

- Gran Vía, 59 28013 Madrid
- (+34) 91 456 03 60
- informa@baratz.es