Visual Languages for Interactive Computing: Definitions and Formalizations

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Visual languages are the defining component of interactive computing environments, yet in spite of the rapid pace of evolution of this domain, significant challenges remain.

Visual Languages for Interactive Computing: Definitions and Formalizations presents comprehensive coverage of the problems and methodologies related to the syntax, semantics, and ambiguities of visual languages. This all-inclusive reference authoritatively sets out the defining issues related to formalizing visual languages for interactive computing, creating a foundational reference for future research and application. As a unique collection of research on all critical elements of the field, this Premier Reference Source enables libraries to provide the defining research to drive the next generation of improvements to interactive computing.

Topics Covered:
- Customized Visual Computing
- Designing a Visual Language
- Documentation Methods for Visual Languages
- Drawing Biochemical Networks
- Extended Positional Grammars
- Geovisualization and GIS
- Interactive Visual Languages
- Interface Design with UML
- Management of Ambiguities
- Multi-Facet Design of Interactive Systems
- Multi-View Visual Languages
- Questioning Usability
- Semantic Web Service Composition
- Sketch Understanding
- Spatio-Temporal Databases
- Theory of Visual Sentences
- Visual and Diagrammatic Languages
- Visual Data Mining
- Visual Notation Interpretation and Ambiguities
- Visual Programming Tool
- Visual Query Languages
- XML Data Management

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Fernando Ferri received his degrees in Electronics Engineering and PhD in Medical Informatics at the University of Rome ‘La Sapienza’. Actually Researcher at the National Research Council of Italy, he was a Contract Professor from 1993 to 2000 of ‘Sistemi di Elaborazione’ at the University of Macerata. He is the author of more than 90 papers in international journals, books and conferences. His main methodological areas of interest are Human-Computer Interaction Visual Languages, Visual Interfaces, Sketch-based Interfaces and Multimodal Interfaces, Data and knowledge bases, Geographic Information Systems.

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