Formal Software Engineering:
From Domain Engineering via Requirements Engineering
to Software Design:
a Formal Specification & Design Calculi Approach

Abstract of All Day Lectures,
IFIP’98: World Computer Congress, Budapest
1998

Dines Bjørner, Technical University of Denmark

Abstract

We present an abstract\(^1\) of a set of all-day lectures to be given at IFIP’98: the World Computer Congress, Budapest, Saturday September 5, 1998.

The general subject of the lectures reside in software engineering: in methods (cum formal specification and design calculi techniques) for the design of large scale software systems for the support of infrastructure systems such as transportation (railways, air traffic, shipping, etc.), manufacturing (enterprises and industry), financial service industry (banks, insurance companies, securities broker, trader & exchanges, etc.

The specific lecture plan is tentatively:
1. From Domains via Requirements to Software — a Small Example
2. Definitions of Domain and Requirements,
   Software Architecture and Program Organisation Concepts
3. Domain Models
4. Requirements Models
5. Software Architecture & Program Organisation Models
6. Review, Conclusion & Discussion

• Lectures will be supported by copies of some 120 overhead foils
• and by extensive lectures notes (approx. 450 pages).

\(^1\)Reference is made to a complementary abstract given in official IFIP Brochures (Second Announcement with Call for Participation, IFIP world computer congress, 31 August – 4 September 1998.)