



Structured Analysis and Design

Duration: 4 Days

Course Description

This 4-day course covers the ideas developed by Yourdon, Ward, Mellor, Chen and Constantine over the past three decades. Their work combines to establish a robust, well-proven approach to systems modeling together with a practical development cycle that closely matches standard software engineering practices. During this course students will apply the techniques to a real-world project example either on paper or using a suitable case tool.

Audience

Systems and software engineers seeking an introduction to structured methods and practical experience of their application to real-time systems.

Prerequisites

Some experience of developing software with procedural languages
Some understanding of real-time and embedded systems.

Course Outline

Introduction to Structured Methods

- Using structured methods
- Modeling and Abstraction
- The Yourdon Method
- Analysis and Design

Data Flow Diagrams

- Data Processes
- Data Flows
- Control Processes
- Process Switches
- Hierarchy and Balancing
- Data Dictionary

State Transition Diagrams

- States and Events
- Conditions and Actions

Yourdon Software Process

Environmental Modeling

- Context Diagram
- Event List

Behavioral Modeling

- Event Response Table
- Data Flow Decomposition
- Event Partitioning
- Preliminary DFD
- Re-leveling

Processor Modeling

- Hardware/Software Split
- Data Storage
- Interface Definition



Sterlink Training Business Analysis Curriculum

- Hierarchy and Balancing

- Processor Distribution

Entity Relationship Diagrams

- Entities and Relationships
- Associative Entities
- Sub-typing
- Attributes

Task Modeling

- Handling Concurrency
- Defining the Tasking Model
- Interrupts versus Polling

Structure Charts

- Modules and Calls
- Conditions and Iteration
- Data Modules
- Hierarchy and Balancing

Module Modeling

- Mapping Data Flow Diagrams
- Mapping State Diagrams
- Module Specifications
- Optimizing the Design

For more information about this and other offerings

Please contact Sterlink Data Systems at (416) 859-6470 or email us at training@sterlink.ca

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