

Chapter 2 : Requirements Definition, Prototyping, and Modeling

- Glass' Law (16) - *Requirements deficiencies are the prime source of project failures.*
- Boehm's First Law (17) - *Errors are most frequent during the requirements and design activities and are the more expensive the later they are removed.*
- Boehm's Second Law (19) - *Prototyping (significantly) reduces requirement and design errors, especially for user interfaces.*
- Davis' Law (22) - *The value of a model depends on the view taken, but none is best for all purposes.*
- Booch's First Hypothesis (25) - *Object model reduces communication problems between analysts and users.*

Chapter 3 : System Design and Specification

- Unnamed Law (36) - *Design is easiest in the case of special purpose systems.*
- Curtis' Law (38) - *Good designs require deep application domain knowledge.*
- Simon's Law (40) - *Hierarchical structures reduce complexity.*
- Constantine's Law (43) - *A structure is stable if cohesion is strong and coupling low.*
- Parnas' Law (45) - *Only what is hidden can be changed without risk.*
- Denert's Law (46) - *Separation of concerns leads to standard architectures.*
- Booch's Second Hypothesis (50) - *Object-oriented designs reduce errors and encourage reuse.*
- Bauer-Zemanek Hypothesis (50) - *Formal methods significantly reduce design errors, or eliminate them early.*
- Gamma's Hypothesis (53) - *Reusing designs through patterns yields faster and better maintenance.*

Chapter 4 : System Construction and Composition

- DeRemer's Law (71) - *What applies to small systems does not apply to large ones.*
- Corbato's Law (72) - *Productivity and reliability depend on the length of a program's text, independent of language level used.*
- Dijkstra-Mills-Wirth Law (73) - *Well structured programs have fewer errors and are easier to maintain.*
- Lanergan's Law (76) - *The larger and more decentralized an organization, the more likely it is that it has reuse potential.*
- McIlroy's Law (77) - *Software reuse reduces cycle time and increases productivity and quality.*
- Conway's Law (81) - *A system reflects the organizational structure that built it.*
- Dahl-Goldberg Hypothesis (83) - *Object-oriented programming reduces errors and encourages reuse.*
- Beck-Fowler Hypothesis (84) - *Agile programming methods reduce the impact of requirements changes.*
- Basili-Boehm COTS Hypothesis (85) - *COTS-based software does not eliminate the key development risks.*

Chapter 5 : Validation and Static Verification

- Fagan's Law (100) - *Inspections significantly increase productivity, quality, and project stability.*
- Porter-Votta Law (103) - *Effectiveness of inspections is fairly independent of its organizational form.*

Selected Laws

taken from A Handbook of Software and Systems Engineering. by Albert Endres and Dieter Rombach

- Basili's Law (105) - *Perspective-based inspections are (highly) effective and efficient. A perspective is the view a certain stakeholder has on a system.*
- Hetzel-Myers Law (107) - *A combination of different Validation and Verification methods outperforms any single method alone.*
- Mills-Jones Hypothesis (110) - *Quality entails productivity.*
- Mays' Hypothesis (110) - *Error prevention is better than error removal.*
- Hoare's Hypothesis (112) - *Proving of programs solves the problems of correctness, documentation, and compatibility.*

Chapter 6 : Testing or Dynamic Verification

- Sackman's First Law (127) - *Online debugging is more efficient than offline debugging.*
- Dijkstra's Law (128) - *Testing can show the presence but not the absence of errors.*
- Weinberg's Law (131) - *A developer is unsuited to test his or her code.*
- Pareto-Zipf-Type Laws (131) - *Approximately 80 percent of defects come from 20 percent of the modules.*
- Gutjahr's Hypothesis (136) - *Partition testing is more effective than random testing.*
- Hamlet's Hypothesis (139) - *Suspicion-based testing can be more effective than most other approaches.*

Chapter 10 : User Skill, Motivation, and Satisfaction

- Kupfmüller's Law - *Humans receive most information through the visual system and store it in a spatially organized memory.*
- Gestalt Laws - *Humans tend to structure what they see to form cohesive patterns.*
- Miller's Law - *Short-term memory is limited to 7 (+ or - 2) chunks of information.*
- Krause's Law - *Multimodal information is easier to remember than single mode.*
- Librarian's Law - *The more knowledge that is available, the more effort has to be spent on the processes to use it.*
- Apprentice's Law - *It takes 5000 hours to turn a novice into an expert.*
- Maslow-Herzberg Law - *Human needs and desires are strictly prioritized.*
- McGregor's Hypothesis - *Motivation requires integration and participation.*
- Hawthorne Effect - *Group behavior depends on the level of attention given.*
- Marketer's Hypothesis - *One unsatisfied customer can hurt more than two satisfied customers can help.*

Chapter unnumbered : unnamed

- Unstated, Implied, Unnamed Law (?) - *All laws are meant to be broken, or at least bent.*