1. Record Nr. UNINA9910813257703321

| | |
|---|---|
| Autore | Barbier Franck |
| Titolo | COBOL software modernization : from principles to iplementation with the BLU AGE ® method / / Franck Barbier, Jean-Luc Recoussine |
| Pubbl/distr/stampa | London, England ; : , : Hoboken, New Jersey : , : ISTE : , : Wiley, , 2015<br>©2015 |
| ISBN | 1-119-07314-6<br>1-119-07308-1 |
| Descrizione fisica | 1 online resource (282 p.) |
| Collana | Computer Engineering Series |
| Disciplina | 005.133 |
| Soggetti | COBOL (Computer program language)<br>Software architecture |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Note generali | Description based upon print version of record. |
| Nota di bibliografia | Includes bibliographical references and index. |
| Nota di contenuto | Cover; Title Page; Copyright; Contents; Acknowledgments; Acronyms; Introduction; I.1. Behind software modernization is "modernization": the car metaphor; I.2. COBOL; I.3. Why the Cloud?; I.4. Legacy2Cloud; I. 5. Human weight on successful modernization; I.6. This book's structure; 1: Software Modernization: a Business Vision; 1.1. Software-based business; 1.2. Information-driven business; 1.2.1. Adaptation to business; 1.3. The case of tourism industry; 1.4. IT progress acceleration; 1.5. Legacy world; 1.5.1. Exiting the legacy world; 1.5.2. Legacy world professionals; 1.6. Conclusions<br>2: Software Modernization: Technical Environment2.1. Legacy system; 2.2. Modernization; 2.2.1. Replacement; 2.2.2. Migration; 2.2.3. Modernization versus migration; 2.2.4. The superiority of white-box modernization; 2.3. Software engineering principles underpinning modernization; 2.3.1. Re-engineering in action; 2.3.2. Re-engineering challenges; 2.4. Conclusions; 3: Status of COBOL Legacy Applications; 3.1. OLTP versus batch programs; 3.2. Mainframes; 3.3. Data-driven design; 3.4. COBOL degeneration principle; 3.5. COBOL pitfalls; 3.6. Middleware for COBOL<br>3.7. Moving COBOL OLTP/batch programs to Java3.8. COBOL is not a friend of Java, and vice versa; 3.9. Spaghetti code; 3.9.1. Spaghetti code sample; 3.9.2. Code comprehension; 3.10. No longer COBOL?; 3.11. |

Conclusions; 4: Service-Oriented Architecture (SOA); 4.1. Software architecture versus information system urbanization; 4.2. Software architecture evolution; 4.3. COBOL own style of software architecture; 4.4. The one-way road to SOA; 4.5. Characterization of SOA; 4.5.1. Preliminary note; 4.5.2. From objects to components and services; 4.5.3. Type versus instance
4.5.4. Distribution concerns4.5.5. Functional grouping; 4.5.6. Granularity; 4.5.7. Technology-centrism; 4.5.8. Composition at design time (... is definitely modeling); 4.5.9. Composition at runtime; 4.6. Conclusions; 5: SOA in Action; 5.1. Service as materialized component; 5.2. Service as Internet resource; 5.2.1. Pay-per-use service; 5.2.2. Free service; 5.2.3. Data feed service; 5.3. High-end SOA; 5.4. SOA challenges; 5.5. The Cloud; 5.5.1. COBOL in the Cloud; 5.5.2. Computing is just resource consumption; 5.5.3. Cloud computing is also resource consumption, but...
5.5.4. Everything as a service5.5.5. SOA in the Cloud; 5.5.6. The cloud counterparts; 5.6. Conclusions; 6: Model-Driven Development (MDD); 6.1. Why MDD?; 6.2. Models, intuitively; 6.3. Models, formally; 6.4. Models as computerized objects; 6.5. Model-based productivity; 6.6. Openness through standards; 6.6.1. Model-Driven Architecture (MDA); 6.7. Models and people; 6.8. Metamodeling; 6.8.1. Metamodeling, put simply; 6.9. Model transformation; 6.10. Model transformation by example; 6.11. From contemplative to executable models; 6.12. Model execution in action
6.13. Toward Domain-Specific Modeling Languages (DSMLs)

Sommario/riassunto

Nowadays, billions of lines of code are in the COBOL programming language. This book is an analysis, a diagnosis, a strategy, a MDD method and a tool to transform legacy COBOL into modernized applications that comply with Internet computing, Service-Oriented Architecture (SOA) and the Cloud.  It serves as a blueprint for those in charge of finding solutions to this considerable challenge.