

IT Architecture

Required and recommended reading

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Books

- Be selective
- No single best source



SOFTWARE

PERSPECTIVES ON AN EMERGING DISCIPLINE MARY SHAW DAVID GARLAN

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The Software Architect's Profession

An Introduction

MARC T. SEWELL · LAURA M. SEWELL

ARCHITEC



Reading

• Required (\rightarrow these are in the zip file)

- J.A. Zachman, A framework for information systems architecture, IBM Systems Journal, 1987
- What do IT Architects do all day?
- L. Cherbakov, G. Galambos, R.Harishankar, S. Kalyana, G. Rackham: Impact of service orientation at the business level, IBM Systems Journal, 2005
- R. Schulte, Clarifying the Terms "Event-Driven" and "Service-Oriented Architecture", Gartner Research, 2005
- M. Maier, D. Emery, R. Hilliard: Software Architecture Introducing IEEE Standard 1471
- IEEE Recommended Practice for Architectural Description of Software-Intensive Systems: IEEE Standard 1471
- <u>The Open Group Architecture Framework (TOGAF)</u> → Management Overview only
- The Open Group IT Architect Certification Program
- Recommended (→ these are also in the zip file)
 - Rechtin, The art of systems architecting, IEEE Spectrum 1992
 - Rechtin, Appendix A: Heuristics for systems level architecting
 - R. Youngs et al., A standard for architecture description, IBM Systems Journal, 1999
 - M. R. McBride, The software architect, Comm. ACM, May 2007
 - David E. Emery, Architectural Frameworks: Defining the contents of architectural desriptions
 - R. Schulte, Architecture and Planning for Modern Application Styles, Gartner Strategic Analysis Report, 1997



Extended Reading List

- Alexander, Christopher (1979), The Timeless Way of Building New York: Oxford University Press
- Applegate, Lynda.M. (1995) Designing and managing the information age IT architecture, Harvard Business School Publishing Teaching case 9-196-005
- Applegate, Lynda.M. (1995b) Managing in an Information Age: IT challenges and Opportunities, Harvard Business School Publishing Teaching case 9-196-004
- Bass, L., Clements, P and Kazman, R. (2003) Software Architecture in Practice (2-ed), Reading, Massachusetts: Addison-Wesley / Pearson.
- Dewang, Arjan (2003) Face-off. Computer Bulletin Jan 03 26-27
- Earl MJ (1989), Management Strategies for information Technologies, Prentice Hall Ch5, 95-116
- Ince, DC & Hekmatpar, S (March 1988) An Approach to automated software design based on product metrics. Software Engineering Jnl: 53-56
- Lloyd PTL, Galambos GM (1999) Technical Reference Architectures. IBM Systems Journal 38 (1) 51-75.
- Ross JW (2003) Creating a Strategic IT Architecture Competency: Learning in stages. MIS Quarterly Executive (2) 1 March 2003: 31-43
- Rozanski, N (2005) The qualities that define an IT Architect, Computing 24 Nov 2005 p22.
- Sauer C and Willcocks LP (2002) The evolution of the Organizational Architect, Sloan Management Review 43(3) 41-49
- Seger, K and Stoddard, DB (1993) Managing Information: the IY Architecture, Harvard Business School Publishing: teaching case 9-193-059.
- Sewell MT, Sewell LM (2002) The Software Architect's Profession: An Introduction. Upper Saddle River NJ: Prentice Hall PTR.
- Shaw, M. and Garlan, D. (2003) Software Architecture: perspectives on an emerging discipline. New Jersey: Prentice Hall.
- Wexelblat, R.L. and Srinivasan, N. (1999) Planning for information technology in a federated organization. Information and Management, 35 (5), 3 May 1999, 265-282
- Willcocks, L; Feeny, D and Islei, G (1997) Managing IT as a Strategic Resource, McGraw-Hill
- Yadav (Jan1990), IEE transactions on software engineering