OOP Bibliography

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From: NextAnswers
Subject: OOP

The following posting from comp.Object provides a fairly comprehensive reading list. For Objective-C in particular, see the Brad Cox book listed below.

In August 1989, I posted "Readings In Object-Oriented Technology" to several newsgroups. Since then comp.object has been created, _and_ I have slightly updated the reading list. Lately, I have received a number of requests to repost the article. So here, 'tis. I hope you will find this to be of some use. Thanks.

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Readings In Object-Oriented Technology

by Edward V. Berard
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If you are interested in reading about any rapidly evolving technology, it is best to keep the following in mind:

- Read more than one source. Look for sources which have different, and possibly conflicting, views of the material. It is often difficult to determine fundamental facts when only one viewpoint is present.

- Very often, authors confuse concepts with implementations. Ask yourself if the author is discussing a concept, or a particular implementation of the concept.

- Always be on the lookout for new sources. In the software technology arena in particular, significant changes can take place in less than a month.

- Take care to distinguish between differing viewpoints and conflicting viewpoints.

There are many topic areas in object-oriented software technology, and literally thousands of books, articles, tutorials, and proceedings devoted, in whole, or in part, to object-oriented software concepts. What we will present here is some of the representative reading material. Just because an item is included in this reading list does not mean that it is recommended without qualifications, nor does it mean that it is an authoritative source on a topic. However, the material listed here is intended to help you understand more about the technology.

Object-Oriented Programming

Object-oriented programming books most often tend to focus on programming language aspects of object-oriented technology. However, many fundamental concepts can be found in the books mentioned below:

[Cox, 1986]. B.J. Cox, Object Oriented Programming: An Evolutionary Approach, Addison-Wesley, Reading, Massachusetts, 1986.

[Goldberg and Robson, 1983]. A. Goldberg and D. Robson, Smalltalk-80: The Language and Its Implementation, Addison-Wesley, Reading, Massachusetts, 1983.

[Meyer, 1988]. B. Meyer, Object-Oriented Software Construction, Prentice-Hall, Englewood Cliffs, New Jersey, 1988.

[Keene, 1989]. S.E.Keene, Object-Oriented Programming in Common Lisp, Addison-Wesley, Reading, Massachusetts, 1989.

[Stroustrup, 1986a]. B. Stroustrup, The C++ Programming Language, Addison-Wesley, Reading, Massachusetts, 1986.

Object-Oriented Requirements Analysis

There are a number of publicly available courses on object-oriented requirements analysis. Since the technology is still new, these courses present many differing viewpoints and approaches. There are, however, a number of references on the topic:

[Anderson et al, 1989]. J.A. Anderson, J. McDonald, L. Holland, and E. Scranage, "Automated Object-Oriented Requirements Analysis and Design," Proceedings of the Sixth Washington Ada Symposium, June

26-29, 1989, pp. 265 - 272.

[Coad and Yourdon, 1989]. P. Coad and E. Yourdon, OOA -- Object-Oriented Analysis, Prentice-Hall, Englewood Cliffs, New Jersey, 1989.

[Shlaer and Mellor, 1988]. S. Shlaer and S.J. Mellor, Object-Oriented Systems Analysis: Modeling the World In Data, Yourdon Press: Prentice-Hall, Englewood Cliffs, New Jersey, 1988.

[Stoecklin et al, 1988]. S.E. Stoecklin, E.J. Adams, and S.Smith, "Object-Oriented Analysis," Proceedings of the Fifth Washington Ada Symposium, June 27 - 30, 1988, Association for Computing Machinery, New York, New York, 1988, pp. 133 - 138.

Object-Oriented Design/Development

Most of the work which has been done in the area of object-oriented life-cycle issues, outside of object-oriented programming, has been accomplished within the Ada community. Some representative sources on OOD are:

[Abbott, 1983]. R.J. Abbott, "Program Design by Informal English Descriptions," Communications of the ACM, Vol. 26, No. 11, November 1983, pp. 882 - 894.

[Booch, 1982]. G. Booch, "Object Oriented Design," Ada Letters, Vol. I, No. 3, March- April 1982, pp. 64 - 76.

[Booch, 1986]. G. Booch, "Object Oriented Development," IEEE Transactions on Software Engineering, Vol. SE-12, No. 2, February 1986, pp. 211 - 221.

[Booch, 1990]. G. Booch, "On the Concepts of Object-Oriented Design," in Modern Software Engineering: Foundations and Current Perspectives, P.A. Ng and R.T. Yeh, Editors, Van Nostrand Reinhold, New York, New York, 1990, pp. 165 - 204.

[Heitz, 1988]. M. Heitz, "HOOD: A Hierarchical Object-Oriented Design Method," Proceedings of the Third German Ada Users Congress, January 1988, Gesellschaft fur Software Engineering, Munich, West Germany, pp. 12-1 - 12-9.

[Masiero and Germano, 1988]. P. Masiero and F.S.R. Germano, "JSD As An Object-Oriented Design Method," Software Engineering Notes, Vol. 13, No. 3, July 1988, pp. 22 - 23.

[Stark and Seidewitz, 1987]. M. Stark and E.V. Seidewitz, "Towards a General Object-Oriented Ada Life-Cycle," Proceedings of the Joint Ada Conference, Fifth National Conference on Ada Technology and Washington Ada Symposium, U.S. Army Communications-Electronics Command, Fort Monmouth, New Jersey, pp. 213 - 222.

Object-Oriented Databases

Object-oriented databases are not the same thing as relational databases. In effect, object-oriented database technology today is at the same point relational database technology was in the late 1970s. (I know more than a few vendors who would disagree with this point.) Some representative information on the subject can be found in:

[Atkinson et al, 1989]. M. Atkinson, F. Bancilhon, D. DeWitt, K. Dittrich, D. Maier, and S. Zdonik, "The Object-Oriented Database System Manifesto," (Invited Paper), Proceedings of the First International Conference on Deductive and Object-Oriented Databases, Kyoto, Japan, December 4-6, 1989, pp. 40 - 57.

[Babcock, 1987]. C. Babcock, "Object is DBMS Focus," ComputerWorld, Vol. XXI, No. 40, October 5, 1987, page 25.

[Blaha et al, 1988]. M.R. Blaha, W.J. Premerlani, and J.E. Rumbaugh, "Relational Database Design Using an Object-Oriented Approach," Communications of the ACM, Vol. 31, No. 4, April 1988, pp. 414 - 427.

[Bochenski, 1988]. B.A. Bochenski, "On Object-Oriented Programming, Databases," Software, Vol. 8, No. 11, September 1988, page 42.

[Dittrich and Dayal, 1986]. K. Dittrich and U. Dayal, Editors, Proceedings of the 1986 International Workshop on Object-Oriented Database Systems, IEEE Catalog Number 86TH0161-0, IEEE Computer Society Press, Washington, D.C., 1986.

[Scannell, 1988]. T. Scannell, "Freeform DBMS the 'Object' of Startup Company's Affection,"JMini-Micro Systems, Vol. XXI, No. 2, February 1988, pp. 16 - 22.

[Weiss, 1987]. R. Weiss, "Why Object-Oriented Databases?," Electronic Engineering Times, No. 465, December 21, 1987, page 23.

[Wile and Allard, 1987]. D.S. Wile and D.G. Allard, "Worlds: an Organizing Structure for Object-Bases," SIGPLAN Notices, Vol. 22, No. 1, January 1987, pp. 16 - 26.

[Zdonik and Maier, 1990]. S.B. Zdonik and D. Maier, "Fundamentals of Object-Oriented Databases," Readings in Object-Oriented Database Systems, Morgan Kaufmann Publishers, Inc. San Mateo, California, 1990, pp. 1 - 32.

Object-Oriented Computer Hardware

Even computer hardware can be constructed in an object-oriented manner. Here are three references:

[Myers, 1982]. G.J. Myers, Advances in Computer Architecture, Second Edition, John Wiley & Sons, New York, New York, 1982.

[Organick, 1983]. E. Organick, A Programmer's View of the Intel 432 System, McGraw-Hill, New York, New York,1983.

[Pountain, 1988]. D. Pountain, "Rekursiv: An Object-Oriented CPU," Byte, Vol. 13, No. 11, November 1988, pp. 341 - 349.

Object-Oriented Metrics

As organizations begin shifting to object-oriented approaches, they find that some of the ways in which they used to measure things are less appropriate. People have already begun asking about object-oriented metrics. Although most work in this area is relatively new, there are a growing number of references, including:

[Duhl and Damon, 1988]. J. Duhl and C. Damon, "A Performance Comparison of Object and Relational Databases Using the Sun Benchmark," OOPSLA '88 Conference Proceedings, Special Issue of SIGPLAN Notices, Vol. 23, No. 11, November 1988, pp. 153 - 163.

[Hufnagel and Brown, 1989]. S.P. Hufnagel and J.C. Brown, "Performance Properties of Vertically Partitioned Object-Oriented Systems," IEEE Transactions on Software Engineering, Vol. 15, No. 8, August 1989, pp. 935 - 946.

[Liberherr and Holland, 1989]. K.J. Liberherr and I.M. Holland, "Assuring Good Style for Object-Oriented Programs," IEEE Software, Vol. 6, No. 5, September 1989, pp. 38 - 48.

[Liberherr and Riel, 1988]. K.J. Liberherr and A.J. Riel, "Demeter: a CASE Study of Software Growth Through Parameterized Classes," Journal of Object-Oriented Programming, Vol. 1, No. 3, August/September 1988, pp. 8 - 22.

General Object-Oriented Technology References

There are a number of general references on object-oriented technology, including:

[ACM, 1986a]. Association for Computing Machinery, Special Issue of SIGPLAN Notices on the Object-Oriented Programming Workshop, Vol. 21, No. 10, October 1986.

[ACM, 1986b]. Association for Computing Machinery, OOPSLA '86 Conference Proceedings, Special Issue of SIGPLAN Notices, Vol. 21, No. 11, November 1986.

[ACM, 1987]. Association for Computing Machinery, OOPSLA '87 Conference Proceedings, Special Issue of SIGPLAN Notices, Vol. 22, No. 12, December 1987.

[ACM, 1988a]. Association for Computing Machinery, OOPSLA '87 Addendum to the Proceedings, Special Issue of SIGPLAN Notices, Vol. 23, No. 5, May 1988.

[ACM, 1988b]. Association for Computing Machinery, OOPSLA '88 Conference Proceedings, Special Issue of SIGPLAN Notices, Vol. 23, No. 11, November 1988.

[ACM, 1989]. Association for Computing Machinery, OOPSLA '89 Conference Proceedings, Special Issue of SIGPLAN Notices, Vol. 24, No. 10, October 1989.

[Bezivin et al, 1987]. J. Bezivin, J.-M. Hullot, P. Cointe, and H. Lieberman, ECOOP '87: Proceedings of the European Conference on Object-Oriented Programming, Lecture Notes on Computer Science, Volume 276, Springer Verlag, New York, New York, 1987.

[Cook, 1989]. S. Cook, ECOOP '89: Proceedings of the European Conference on Object-Oriented Programming, British Computer Society Workshop Series, Cambridge University Press, Cambridge, United Kingdom, 1989.

[Gill, 1988]. P. Gill, "MIS Slowly Warms Up to Object-Oriented Programming," ComputerWorld, Vol. XXII, No. 8, February 22, 1988, pp 71 - 76.

[Gjessing and Nygaard, 1988]. S. Gjessing and K. Nygaard, ECOOP '88: Proceedings of the European Conference on Object-Oriented Programming, Lecture Note on Computer Science, Volume 322, Springer Verlag, New

York, New York, 1988.

[Kim and Lochovsky, 1989]. W. Kim and F. Lochovsky, Object-Oriented Concepts, Databases, and Applications, ACM Press/Addison Wesley, Reading, Massachusetts, 1989.

[Millikin, 1989]. M.D. Millikin, "Object Orientation: What It Can Do For You," ComputerWorld, Vol. 23, No. 11. March 13, 1989, pp. 103 - 113.

[Peterson, 1987a]. G.E. Peterson, Tutorial: Object-Oriented Computing, Volume 1: Concepts, IEEE Catalog Number EH0257-6, IEEE Computer Society Press, Washington, D.C., 1987.

[Peterson, 1987b]. G.E. Peterson, Tutorial: Object-Oriented Computing, Volume 2: Implementations, IEEE Catalog Number EH0257-6, IEEE Computer Society Press, Washington, D.C., 1987.

[Shriver and Wegner, 1987]. B. Shriver and P. Wegner, Editors, Research Directions in Object-Oriented Programming, The MIT Press, Cambridge, Massachusetts, 1987.

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