Increasingly, we develop software by integrating components, libraries, and subsystems. The open source software movement has generated an extensive repository of potentially reusable software elements of varying quality and integrability. The free availability of source code might address two reservations often raised when deciding on the use of COTS components: unknown implementation quality and long-term vendor support. However, the use of OSS in commercial software development has not yet been formalized as an established practice. Developers need to know what types of OSS they can reuse, when such reuse is a promising strategy, how they can locate and evaluate OSS, and how OSS will fit into their development and maintenance processes. In addition, drawing on OSS in ways that go beyond unmodified as-is use (by modifying the source) raises further issues of long-term maintainability and its own set of interesting economic, business, and legal aspects.

We seek submissions that address one or preferably more of these topics:

- Taxonomies and repositories of available OSS
- Searching and evaluation strategies
- Success stories and failures
- Development and reuse strategies, models, methodologies
- Economic, business, and legal aspects
- Maintenance and integration of evolution paths
- Cooperation with the OSS community
- Challenges and benefits

Articles should clearly address software development areas where OSS use made a significant positive or negative difference and offer guidance for engineers on how they can best use OSS. Submissions that merely restate existing software engineering issues from an OSS perspective may be rejected without formal review.

Manuscripts must not exceed 5,400 words, including 200 words for each figure and table. We will review experience reports of up to 1,300 words as a separate group if they follow this outline: introduction, application domain, project-specific benefits, OSS adoption problems, verdict. Articles will be peer-reviewed and are subject to editing for magazine style, clarity, organization, and space.

Contact Diomidis Spinellis at dds@aueb.gr for more information about the issue’s focus. General author guidelines are available at http://computer.org/software/author.htm. All manuscripts must be submitted online: http://cs-ieee.manuscriptcentral.com.