TCSE EUROPE: LEADERSHIP STRUCTURE
Elliot Chikofsky, TCSE Chair

Over the last two years, I've spoken with many European members of TCSE about how we can best support our members in the region. This memo is a call for volunteers to help create a regional infrastructure -- a TCSE Europe -- to aid and support software engineering programs and services for TCSE and IEEE CS members.

TCSE is an organizational structure dedicated to the coordination of activities, and the generation and nurturing of new programs, for both practitioners and researchers in the software engineering field. In the last few years, TCSE and its subcommittees have created many new conferences and programs, greatly expanding opportunities in areas such as reliability engineering, reverse engineering, reusability, and s/w metrics.

The number of conferences and programs in Europe that TCSE is asked to cooperate in, sponsor, or support has been growing in recent years. We also have many existing conferences seeking to increase European participation, as well as looking for European venues from time to time. We need better coordination for the involvement of TCSE members in these efforts. We need a regional TCSE leadership structure to coordinate and direct our work. Our objective is to support national and European Community software engineering programs, and certainly not to supplant them in any way.

I am looking for European members to volunteer for key roles in this effort. The objective is to identify one or more national coordinators in each country to be TCSE's ambassador on-site. Together with a TCSE Vice Chair for European Programs to be appointed, the national coordinators will develop plans for TCSE programs to best support members and activities in the region. They will also be involved in process of review and approval of TCSE's cooperation or sponsorship of conferences in Europe. Pending approval of this plan, I would expect that the national coordinators would also become part of the TCSE Executive Committee and participate in issues of general TCSE programs and governance.

The selected coordinators should be active in software engineering as practitioners or researchers and familiar with existing European and national projects, resources, and people. The coordinators must be accessible by electronic mail through internet, as I expect that most of the work will be conducted by email. Each coordinator should be a member/affiliate of the IEEE Computer Society (presently receives Computer magazine directly addressed to the individual) or will become one.

Nominations for coordinator positions should be sent by email to e.chikofsky@computer.org by 1 July 1994. Candidates will be requested to provide a current vita or resume. Self-nominations are welcome.

INITIATIVE CONTINUES ON SOFTWARE ENGINEERING AS A PROFESSION

Initiative Now Cosponsored by IEEE-CS and ACM

In May last year, the IEEE-CS Board of Governors approved a motion to establish a steering committee for evaluating, planning, and coordinating actions related to establishing software engineering as a profession. The steering committee, chaired by Mario Barbacci of SEI, was charged is to "consider and document the issues associated with software engineering as a profession, including, but not limited to:

"The factors involved in, and the value thereof, of establishing software engineering as an approved program including the associated accreditation issues.

"The factors involved in, and value thereof, of establishing a separate set of software engineering ethics.

"The factors involved in, and value thereof, of establishing software engineering as a certified or registered field."

In March 1994, the IEEE Computer Society's President, Laurel Kaleda, agreed with ACM President Gwen Bell to make the steering committee a joint IEEE-CS/ACM activity. To this end, the steering group was restructured for joint IEEE-CS and ACM participation. As this newsletter goes to press, the reorganized committee is preparing to continue and expand the original effort.

TCSE's Role: Dissemination and Resourcing

Out of TCSE's meetings on this topic at ICSE 1993 in Baltimore, TCSE has established a Task Force on Software Engineering Profession to support the larger effort and to ensure communication and dissemination of information. TCSE will also serve as a major resource vehicle for the larger effort, locating people to participate at all levels of the work. Chuck Howell of Mitre has agreed to chair our Task Force and coordinate communication. He can be reached at (703) 883-5598; email howell@mitre.org.

You can join, like any TCSE subcommittee, to be on the interest list for projects and updates. There is a box for joining the Task Force list on the TCSE membership form, or send your request to the tcse@computer.org address.

MESSAGE FROM THE EDITOR
Sam Redwine

Having just been "downsized" from the Software Productivity Consortium, I have spent some time contemplating various activities including the enjoyment (as well as hard work) that I have derived from editing this newsletter over the last five years as our membership has grown several-fold. I particularly appreciate the messages I receive providing comments on the newsletter; both I and the newsletter have improved as a result. As I continue, it would be useful if you as a reader would take a few moments and also send me your comments. What do you like most? What would you most like to see? What changes do you think would be useful?

I attempt to address the needs of all TCSE members -- researchers, technologists, and practitioners -- in academia, industry, and government. I am also concerned that we address the needs of our substantial non-US readership. Comments are welcome.

Finally, contributions to the newsletter are needed from Technical Committee members if it is to continue its success. Send your submittal to the me via netmail at s.redwine@computer.org. If this is a problem, contact me using the name and address list at the end of this newsletter. (Expect some editing may occur, and inappropriate material will, of course, not appear.) I -- and our readership -- look forward to your contributions.

TCSE SUBCOMMITTEE ON SOFTWARE ENGINEERING EDUCATION
Laurie Werth

The Subcommittee on Software Engineering Education has been formed to recognize the increasing importance of software engineering education. Our purpose is to identify, promote, develop and support the formal and informal education of software engineering practitioners, students and educators. The Subcommittee will seek the cooperation of national and international organizations that are committed to improving the quality of software engineering education.

Anyone wishing to join the Education Subcommittee should fill out the TCSE membership form at the back of this newsletter and check the Education subcommittee box. If you are already a TCSE member, you can send your name to tcse@computer.org indicating Education subcommittee. Please also tell us of your particular areas of interest in software engineering education.

Keith Pierce, from the University of Minnesota at Duluth has joined as the subcommittee's newsletter editor (see elsewhere in this issue). Keith brings along his experience as publisher of the FASE electronic newsletter.

Suggestions on activities or other items should be sent to the subcommittee, in care of Mike McCracken, Georgia Institute of Technology, College of Computing, Atlanta, GA 30332-0280 USA; (404) 894-6172; or preferably, via email mike@cc.gatech.edu

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SUBCOMMITTEE ON SOFTWARE PROCESS

Significant and growing interest exists, both in academia and industry, in the topic of software process, and this growth is likely to continue in the foreseeable future. Existing activities include annual workshops and conferences on this subject, and numerous efforts in academia on developing technology for supporting software processes and in industry on improving processes. While some results have been encouraging, we have a long way to go to achieving significant goals in software quality, productivity and cost through software processes and their supporting technology.
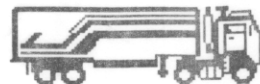
The TCSE Subcommittee on Software Process is being formed to help structure and improve communication within the process community. The subcommittee aims to complement other activities in the software process area (e.g., international workshops and conferences, SPINs) and to collaborate with the organizers of these events and groups.

The significance of this goal is that there would be improved communication within the process community. In turn, this would encourage identification of specific problems in the process field, discussion of approaches to solve such problems, bring forward examples of successes and failures in practice, formation of collaborative efforts, and so forth.

The mechanism to be used to achieve these goals include softcopy and hardcopy Process Newsletters, the latter to be included in the future issues of the TCSE Newsletter. The Process Newsletter would contain a suitable set of process related articles, announcements and information.

The chair of this new subcommittee is Nazim H. Madhavji of McGill University and CRIM in Montreal, Quebec, Canada. Members of the organizing group are Jean-Normand Drouin (Bell Canada), Alfonso Fuggetta (Poly. Milano, Italy), Katsuro Inoue (Osaka University, Japan), Marc I. Kellner (SEI, USA), Dieter Rombach (University of Kaiserslautern, Germany), Wilhelm Schaefer (University of Dortmund, Germany), and Larry Votta (AT&T Bell Labs, USA).

To join the subcommittee, check the "Software Process" box on the form in the back of this newsletter, or send the requested information by email to tcse@computer.org. For further information and general business of the subcommittee, contact Nazim H. Madhavji; (514) 398-3740; fax (514) 398-3883; email tcse-sp@process.cs.mcgill.ca

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TCSE SUBCOMMITTEE ON SOFTWARE ENGINEERING TECHNOLOGY TRANSFER

The TCSE has launched a Subcommittee on Technology Transfer whose scope includes a focus on the introduction of software engineering technology into use but also covers other inter-organizational transfers (e.g. university lab to commercial lab) and the many things that impact the ease, extent, and success of transfers.

As this newsletter goes to press, the 4th IEEE Computer Society Workshop on Software Engineering Technology Transfer is about to be held in Dallas, Texas, sponsored by the subcommittee.

If you are interested in joining the Subcommittee on Technology Transfer, send your name to tcse@computer.org. If you are not already a TCSE member include information in TCSE's regular information form (see or just use the form in the back of this newsletter).

EXCERPT FROM TCSE'S ANNUAL REPORT TO THE IEEE-CS TECHNICAL ACTIVITIES BOARD

March 1, 1994

TC ON SOFTWARE ENGINEERING (TCSE)

TCSE Chair: Elliot Chikofsky
TCSE Executive Vice Chair: Sam Redwine

Administrative Organization of TCSE

TCSE is structured as a central organization with a series of subcommittees and task forces specializing in particular topic areas.

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TCSE
-    central elements
          -   Operations Committee
                  consists of the TCSE Chair, Vice Chairs,
                  all Subcommittee Chairs,
                  all Task Force Chairs, and Immed. Past Chair
          -   Executive Committee
                  consists of a diverse group of software
                  engineering notables

-    subcommittees on
          -   Softw Engineering Standards  (SESC, was SESS)
          -   Software Reliability Engineering
          -   Reverse Engineering
          -   Software Reuse
          -   Quantitative Methods
          -   Technology Transfer  (established 1993)
          -   Software Engineering Education  (estab. 1993)
          -   Software Process  (new 1994)

-    task forces on
          -   Software Engineering Profession  (estab. 1993)
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TC Chair Election

In 1992, TCSE implemented direct membership election of the TC Chair for a two year term of office. 1994 will be an election year with the ballot published in our April newsletter. The TCSE election procedure was used as basis for the TAB procedures for TC Chair elections, adopted November 1992.

1993 Conferences

TCSE's 1993 conferences included:
- Intl Conf on Software Engineering (ICSE)
- Intl Conference on Software Maintenance (ICSM)
- Intl Workshop on CASE (CASE)
- Intl Symposium on Software Reliability Engineering (ISSRE)
- Working Conf on Reverse Engineering (WCRE)
- Software Metrics Symposium (Metrics)
- Software Configuration Management
- Workshop on Program Comprehension (WPC)
- Intl Workshop on Software Specification and Design (IWSSD)
- Intl Workshop on Software Reusability
- Requirements Engineering Symposium
- Software Engineering Standards Symposium

TCSE also cooperated in conferences in Japan and Spain.

Newsletters

TCSE's key unifying activity is the TCSE Newsletter, published three times a year, generally April/May, September/October, and January. In 1993, a CS accounting snafu (later traced back to double-charged postage) wiped out our budget mid-year, so we published a 64-page combined issue in December 1993.

The TCSE Newsletter consists of a white-paper outer newsletter with TCSE news, education column, general software engineering articles, ReNews summary, TCSE membership form and a directory of TCSE leaders. Within this outer newsletter, color-coded subcommittee newsletters are bound together. We have received praise from members for our format, the ease of understanding mixed subjects, and our consistency.

In 1993, we added the Technology Transfer subcommittee newsletter.

In 1991, 1992, and 1993, the January issue was polybagged with the January issue of IEEE Software magazine. We were unable to do that for 1994 due to the 1993 budget.

The TCSE Newsletter is a key unifying activity. This requires the lion's share of TCSE's budget, but the TCSE officers and subcommittee chairs have continued to rate it as the most important spending item for the success of TCSE's mission and our activities.

We plan to continue the newsletter in its present form, expanding it as required for the addition of new subcommittees. To meet our budget, the sale of paid advertising space (as approved by TAB in November 1993) may be necessary.

Electronic Newsletters

In late 1991, TCSE adopted the electronic newsletter "ReNews", forming the nucleus of our Software Reuse subcommittee. ReNews is distributed in electronic format, with a summary appearing in the TCSE Newsletter.

We continue to explore the viability of electronic newsle... However, the vast majority of TCSE members either do not ha. an internet-accessible email address.

On a trial basis, we are distributing occasional notices and announ... members who are email-accessible. For example, an informal information ... TCSE members (see 12.7 below) in London, England in July 1993, hosted ... University London, was announced to members throughout the United Kingdo... email. This sparked some very useful exchanges with members who were unable to make the meeting itself.

Standards Activities

We are heavily involved in standards activities. Unlike other TCs that are separating from their standards groups, TCSE and SESC are drawing closer together. All SESC members are TCSE members, and all TCSE members regularly have an opportunity to join SESC and participate in standards work. TCSE has both a Vice Chair for Standards and a Standards Subcommittee Chair (SESC Chair).

In 1993, TCSE and SESC reached a formal agreement for continued interlocking membership and work. A copy is attached as Appendix B.

Leadership in Technical Discipline

Our topical subcommittees are active leaders in causing the generation of papers and discussion / exchange in their technical areas.

For example, the Reverse Engineering Subcommittee has been a leader in organizing and supporting both industrial meetings and the first technical conference (1993) specifically covering reverse engineering as a topic. This has fostered a ground-swell of research papers and exchanges of views between industry and academia. There are such examples in most of TCSE's project areas.

Conferences

We have been working to improve the relationship and communication between TCSE and our various conference committees. Conferences, workshops, and symposia are part of the overall program on software engineering issues that TCSE manages. With the emergence of many new technical meetings and the normal turnover of organizers for established conferences, it is important that meeting leaders recognize the broader context of which any particular meeting is a part. Issues of quality, budget, and topic choices have an impact well beyond a single meeting.

A recent trend is to encourage the clustering of conferences for economy of scale and to create new combined programs and opportunities. This appears to be getting more successful as we learn from each experience. The satellite conferences around ICSE in Baltimore (metrics, reverse engineering, and configuration management) were well attended. For 1994, the Intl. Conference on Software Maintenance (ICSM) is working with other meetings, both research and industrial, to form a larger critical mass that should broaden technical interchange.

TCSE uses "in cooperation" status as an important tool to have us involved with both established and up-and-coming conferences and workshops that broaden our range and scope for our members.

Subcommittee Activities

TCSE's subcommittees have various projects (new and continuing) in the works, including conferences, workshops, and surveys. Here are some examples:
- The new Technology Transfer Subcommittee has initiated both a newsletter and a new symposium (April 1994).
- The Reverse Engineering Subcommittee's taxonomy project is continuing to collect definitions for a next revision of its taxonomy. The original taxonomy was published in IEEE Software in January 1990.
- The Quantitative Methods Subcommittee is preparing a proposal to the IEEE-CS Publications Board for a wholly-electronic refereed journal.
- The Software Reliability Engineering Subcommittee is sponsoring the very successful Intl. Symposium on Software Reliability Engineering (ISSRE).
- The Software Reuse Subcommittee continues the publication of the ReNews electronic newsletter and sponsorship of the Intl. Workshop on Software Reusability (a meeting so international in its scope that it has yet to be held in the U.S.).
- The Software Process Subcommittee is just getting under way.

TCSE Task Force on Software Engineering Profession

Meeting at ICSE in Baltimore on May 21, 1993, the IEEE-CS Board of Governors approved a motion to establish a steering committee for evaluating, planning, and coordinating actions related to establishing software engineering as a profession. The approved motion was the culmination of many discussions at CS committee meetings throughout the week, spearheaded by Fletcher Buckley of Martin Marietta, and the action approved at TCSE's Executive Committee to propose the steering committee approach.

Out of our meetings on this topic at ICSE in Baltimore, TCSE has established a Task Force on Software Engineering Profession to support the larger effort and to ensure communication and dissemination of information. Chuck Howell of Mitre has agreed to chair the TCSE Task Force and coordinate communication. Individuals can join the TCSE Task Force by checking a box on TCSE's regular membership form.

CALL FOR PAPERS

The Second ACM SIGSOFT Symposium
on the

Foundations of Software Engineering

New Orleans, Louisiana USA
6-9 December 1994
Sponsored by ACM SIGSOFT

The ACM SIGSOFT '94 Symposium on the Foundations of Software Engineering will focus on innovative research results that identify and contribute to the foundations of software engineering. The intent is to help establish software engineering as a viable engineering discipline.

We solicit papers in all technical areas of software engineering. A successful paper is expected to report on new principles, methods, or results of experimentation in software engineering (which includes topics related to the specification, design, implementation, and evaluation of software systems). Papers should emphasize how they contribute to a foundation that allows us to effectively engineer classes of complex software systems in disciplined, reasoned ways. Unless a strong tie to software engineering is made, papers more central to other aspects of computer science should be submitted to conferences in those areas.

A paper should clearly state the contribution and its underlying assumptions. It should also assess the results, making appropriate comparisons with and references to the literature. Papers will be judged on clarity, significance, relevance, correctness, and originality. The paper must contain ideas not previously presented in or currently waiting acceptance to another formal forum.

All papers will be reviewed by program committee members. In some cases, additional external advice may be solicited by the program committee. Papers of particular merit may be recommended to major software engineering journals for expedited review.

Submissions are limited to 12 pages (including figures) in 10 point type or larger, excluding references. Overly long submissions will be returned without review. Five copies, preferably double-sided, must be **received by** the program chair by **May 31, 1994**. Authors will be notified by **August 5, 1994**. Camera-ready versions of accepted papers are due, along with ACM copyright release forms, by **September 19, 1994**. Proceedings will be distributed at the symposium and as a special issue of ACM Software Engineering Notes.

Tutorials will be held on Tuesday, **December 6, 1994**.

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Gail Kaiser, *Columbia University*
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Mark Moriconi, *Stanford Research Institute*

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Barbara Ryder, *Rutgers University*
Dick Taylor, *University of California, Irvine*
Ian Thomas, *Software Design & Analysis Inc., USA*
Walter Tichy, *University of Karlsruhe, Germany*
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