

**EDITORIAL ..... 2**

TC-Forum - to print or not to print?  
by Hans Springer, Germany ..... 4

**TOPIC: EDUCATION AND TRAINING (ET\*)**

Technical Communicaton – the Need for Categorization · ET 12  
by Chris Curven, South Africa ..... 5

Qualification or Certification for Technical Communicators · ET 13  
by Kenneth T. Rainey, USA ..... 6

**TOPIC: INTECOM**

Summary of INTECOM  
Annual General Meeting Zurich, Switzerland, 18 and 20 October 2001  
by Ron Blicq, President of INTECOM ..... 9

Technical Communication in Europe  
by Ursula Wirtz, Germany ..... 10

CRT - in a New Look  
by Marie-Louise Flacke, France ..... 11

**TOPIC: READABILITY / USABILITY / QUALITY (RU\*)**

Give them Printed Documentation, too! · RU 31  
by Mike Starr, USA ..... 12

Why You Should Create a Website · RU 32  
by Alexander von Obert, Germany ..... 15

AECMA 1000D - Goal and Reality · RU 33  
by Stefan Just, Germany ..... 17

**TOPIC: TRANSLATION ISSUES (TR\*)**

Writing Translatable Texts Saves Time and Money · TR 21  
by Gabriele Vollmar, Germany ..... 19

**PROFESSIONAL EVENTS ..... 20**

**NATIONAL CONTACT PERSONS (NCPS) ..... 20**

\* Each Topic has a two-letter abbreviation, for example  
• ET for Education and Training  
• RU for Readability/Usability/Quality  
• TR for Translation Issues

The contributions (articles or comments) are numbered consecutively through the different issues of TC-Forum. When commenting to any of the contributions, please refer to these "codes" for ease of understanding.

**IMPRESSUM**

**TC-FORUM (Technical Communicators' Forum)** is a non-profit initiative supported by INTECOM, the International Council for Technical Communication.

**Editor:**  
Hans Springer  
Bergstraße 56  
D 91443 Scheinfeld, Germany  
+49 (0)9162 92 38 00 (voice)  
+49 (0)69 79 12 33 115 (fax)  
editor@tc-forum.org and  
hans\_springer@t-online.de

**Publisher:**  
Brigitte Beuttenmüller,  
Stuttgart, Germany

**Language & Style:**  
Ron Blicq, Winnipeg, Canada,  
Lisa Moretto, Rochester, NY, USA

**Graphics & Illustrations:**  
Nils P. Smeby, Oslo, Norway  
Johan Näsström, Bandhagen,  
Sweden

**Production:**  
Wolfgang Buchholz, Stuttgart,  
Germany

**Layout:**  
Birgit Wieland, Matthias Scheurle,  
ViV Werbeagentur, Stuttgart,  
Germany

**Address administration:**  
Ami Wright, Cambridge, MA USA  
subs\_tc-forum@tc-forum.org. or  
fax to +1 617 776 7878

**Webmaster [www.tc-forum.org](http://www.tc-forum.org):**  
Alexander von Obert, Nürnberg,  
Germany; avo@twh.nbg.de

**Next issues:**  
▶ March (deadline 31 January)  
▶ June (deadline 10 May)

© Copyright TC-FORUM 1997–2001



**Dear colleagues, subscribers to TC-FORUM and visitors of our website**

**TC-FORUM - after 5 Years of Existence**

With this issue TC-FORUM completes its fifth volume.

When we designed our first issue (January 1997) we had no idea whether TC-FORUM would develop as we had forecast in the first Editorial: "to become the journal for technical communicators, made by technical communicators". One of our slogans has been "TC-FORUM is to be your Forum. It will become what you make out of it." That has proven very well - thanks to all your contributions, by authors, generous sponsors and the colleagues of our TC-FORUM-team.

This year we've made an experiment to find out whether you, our readers would follow us to change over to purely electronic distribution of TC-FORUM in our website - but the result was a confirmation that there are many who still request a paper issue (in addition to some 4500 colleagues per month who have visited our website in the last three months). There are many understandable reasons for that. So we are trying to find a compromise between these wishes and our financial background.

Please let me mention that we presently have two sponsors, one of them (DaimlerChrysler) is the greatest since our beginning, the other one is InfoSatz, both at Stuttgart, Germany. Why are there no sponsors from abroad while we distribute about 20% of the copies per issue to German subscribers; but 80% to colleagues from abroad? Let me appeal to you, colleagues, to find and nominate to me potential sponsors.

Through the five years TC-FORUM has been "made" by the small "team of four" Central Europeans. As the editor, I influence the content on the basis of my knowledge and attitudes. But isn't there a risk that TC-FORUM could become too narrow and not take into sufficient account modern developments in technology and in the environment of technical documentation? I think we need to enlarge our team by creating an editorial group covering a wider range of expertise, and at the same time reduce the workload of the one editor. This is my personal wish for the year 2002.

We look forward to an inspiring future: New technology offers new tools - and at the same time there increases the request for new documentation - contents and presentation media. The horizon of communicators' products opens to more "non-technical" fields, e.g. medicine, safety, security and even political areas, as Margret Mitchell and Greg Baker described in their paper on "Specialist Information to the Australian Parliament" (TC-FORUM 03/2000, p 15). At the same time, it seems to me that we are monitoring a lack of communication-skills and -understanding in many fields of our society. I wonder if communication skills couldn't become a topic in many University- and High School syllabuses e.g. as "Communication & Cultural Techniques"?

Let's look forward to an inspiring future - and continue the discussion among communicators in TC-FORUM and eventually maybe at Forum 2003.

With best wishes for the year 2002

*Hans Springer*  
Hans Springer

**THANK YOU TO THE SPONSORS OF TC-FORUM:**

**DAIMLERCHRYSLER**  
Stuttgart, Germany



Stuttgart, Germany

- ▶ **Transline Deutschland, Dr.-Ing.-Sturz-GmbH**  
Reutlingen, Germany
- ▶ **Foss Electric, Denmark**
- ▶ **ISTC, United Kingdom**
- ▶ **RGI International, Canada**
- ▶ **Tech Style, Israel**
- ▶ **Manugistics Inc., USA**

*Become a sponsor of TC-FORUM and your company name will appear here.*

## TC-FORUM - to Print or Not to Print?

**By Hans Springer, Germany**

Early this year the question came up again whether or not to continue printing TC-FORUM. One reason was the observation that the number of visits to the web site have grown from 842 (Febr. 2000) to 2100 (Dec.2000). Whatever the absolute meaning of "visits" is, doesn't matter in this comparison. We asked ourselves:

"Are these subscribers or additional readers of TC-FORUM?"

"How many of the 2000 copies of TC-FORUM per issue could have been saved, if many used the web issues?"

"What do our subscribers want? Paper or monitor?"

We also had to look at our budget. Printing and distribution of TC-FORUM accounts for more than half of our annual budget.

Having this in mind we decided to make an experiment: we would print only the March- and the December issues in 2001 and have the other two issues (June and September 2001) only on the website. We also attached a questionnaire to the March issue (and inserted it on the website). About 90% of the replies were returned by subscribers to TC-FORUM (printed).

*A competition  
between  
printed copy  
and website*

### Results from the replies show that

- Approximately 97% of our subscribers are equipped to visit our website, and
- Approximately 80% visit our website (occasionally or regularly).

But:

- Only about 35% replied that they were prepared to pay for a subscription to the print version; 65% were opposed.

And:

- 80% signalled a positive general attitude towards going electronic. But are they prepared to drop the printed issue? Or did they appreciate having a web-version as well?

I confess this was not a good question. Many comments explained in speaking and writing to have understood the cost aspect; but they would appreciate "having a piece of paper" in hand.

### The following considerations arose:

- Requesting a subscription fee might exclude some subscribers (especially free-lancers) from receiving the printed TC-FORUM (especially in 3rd World Countries). The costs for bank transfers would be unacceptably high, compared with the net-income, and it would require additional administrative efforts.
- Because we understand the preference for a paper issue, we intend to continue printing TC-FORUM for as long as the financial situation permits (the question of sponsoring and other income, for example advertising, will be discussed later).
- To provide the basis for a new financial solution, TC-FORUM needs to have an official, legal structure. Therefore, the TC-FORUM team offered TC-FORUM to INTECOM, the International Council for Technical Communication at its General Assembly meeting in October 2001. INTECOM seems to be the most appropriate because it is a worldwide organization. The offer has been accepted in principle; further thoughts will be given concerning the financial side during the following months.

At the end of the 5th year of TC-FORUM there are new perspectives coming up to establish what had been created by a "group of four" to make it a stable information and PR-instrument for technical communicators under the aegis of INTECOM.

We will publish further steps in this development in following issues of TC-FORUM.

# Technical Communicators – the Need for Categorisation · ET 12

*By Chris Curwen, South Africa*

We all know that products are designed and developed by a variety of experts, such as engineers, programmers, scientists, and designers. And each of these experts belongs to a particular category. For example, engineers are divided into such categories as Mechanical Engineer, Electrical Engineer, or Aeronautical Engineer. Without that categorisation, there is no way that we can possibly know in what field a particular expert specialises.

But who creates product documentation? The answer – a group of experts known, generically, as Technical Communicators. And, although these are all people who are supposed to be experts in communicating factual information using a combination of words and illustrations, they each have a particular area of specialisation, like the engineers. But the title, "Technical Communicator", that so many of the readers and contributors to TC-Forum use, does not help anybody know their area of specialisation. What they specialise in

For this reason, I believe that people should stop calling themselves "Technical Communicators". They should rather use a title that reflects more accurately the area, or areas, in which they specialise. Typical examples would be, "Technical Author – Mechanical", or "Technical Author – Electrical". As there is a good deal of confusion about these titles, and their functions, I hope that the following definitions will help to clarify the situation.

## Technical Authors

Technical Authors are people who create **original** technical documentation. To do this, they use such things as manufacturing drawings, specifications, models, and the equipment itself, as resources. They then use their **technical knowledge and experience**, as well as their communication skills, to create the necessary documentation. Because of this, Technical Authors specialise in particular areas such as mechanical engineering, hydraulics and pneumatics, or electrical engineering. They may

still function as Technical Writers when working on those areas in which they do not have the necessary technical expertise.

## Technical Writers

Technical Writers are people who use their communication skills to **re-write** existing information, or information they gather from experts, into an acceptable format for the required document. As they rely on technical experts to give them the necessary information, they do not have to be experts in the subject matter, although some technical background is obviously helpful.

## Technical Editors

Technical Editors are people whose primary job is to **evaluate** the work produced by the Technical Authors, Writers, and Illustrators to ensure that it meets any specified requirements. As technical editing covers such things as language usage, document design and layout, and content, Technical Editors should have both **technical knowledge and experience**, and communication skills. In most cases, they will have worked previously as Technical Authors or Writers.

## Technical Illustrators

Technical Authors and Writers use a combination of words and illustrations to communicate with their readers. But, to do this, they need someone to prepare the necessary illustrations. These illustrations may be of many different kinds, ranging from simple isometric views of assemblies to complex perspective exploded views. But, regardless of the kind of illustration needed, they must be prepared professionally. And this is the Technical Illustrators' job.



### CHRIS CURWEN

Curwen Communications Corporation  
P O Box 423  
HEIDELBERG 1438 South Africa  
+27 16 3492031 (voice + fax)  
info@curwen.za.com  
<http://www.curwen.za.com>

# Qualification or Certification for Technical Comm

By *Kenneth T. Rainey, USA*

## Introduction

Technical communication as a profession should have some mechanism for identifying and validating the work that its professionals do. In many countries in Europe, professional societies have made some progress in this direction (see, for example, National occupational standards, SAQ/TECOM).

In the USA, all work in the direction of certification by professional organizations has, for the moment, ceased. The only effort that is proceeding—and I am not sure at what point it has arrived—is an effort by Educational Testing Service to establish a certification examination. The only other work that I know of is a study by the Northwest Consortium on Emerging Technologies (NWCET), which includes a study of technical writing competencies in its report (see NWCET).

*Many  
professionals  
and  
institutions  
would benefit  
from  
certification.*

The consuming public, employers, government agencies, and academic institutions, not to mention individual professionals, would benefit from an objective, fair, and meaningful system of certification. Professional societies of technical communication have an ethical obligation to accept accountability for the work that their members perform. In an effort to encourage movement towards acceptance of that responsibility, here I identify the issues and assess the benefits and disadvantages of certification.

## Reasons for certification

Five reasons justify an objective, fair, and meaningful system of certification that would be beneficial for the profession.

- 1) Some people are performing technical communication tasks for good money without having the necessary training or education or skills to do that work. This situation weakens the work that qualified technical communicators perform, brings into question the legitimacy of the profession, and casts an ethical cloud over the practice of technical communication (see Hayman, 1994a; 1994b; Hale, 2000).
- 2) Product development processes employed by industries have a profound impact on their personal and corporate product development cycles and authoring strategies and, thus, on a corporation's bottom-line. Industries have every right to expect that those they employ understand product development processes and are qualified to implement them. Certification in the field would benefit industry and the profession.
- 3) Industry hires unqualified people with education marginally related to technical communication because there are not enough graduates of technical communication programs. Thus, the solution to the problem of unqualified practitioners is a steady and sufficient supply of qualified professionals. A system of certification that would lead ultimately to a system of accreditation would not guarantee a sufficient supply of professionals, but it would guarantee a qualified supply of professionals.
- 4) Programs in the education of technical communicators could do a better job if they had some measures and specific standards by which to construct, evaluate, and revise their curricula and by which to evaluate their products (their graduates). The diversity of the current programs in technical communication is an ultimate strength of technical communication education. Yet this diversity

## unicators · ET 13

should be built upon a solid foundation of basic knowledge and skills that undergirds any program of instruction, irrespective of diverse approaches to curricula and program requirements.

- 5) The basic knowledge and basic skill sets arising from an objective, fair, and meaningful system of certification will strengthen the profession by assuring that all certified professionals meet the same minimum standards.

### Necessary conditions

Jeff Hibbard, a former President of the Society for Technical Communication in the USA, summarizes the issues succinctly and pointedly. Certification is supportable if all five of the following factors can be realized:

- A valid test
- An agreed-upon body of knowledge
- Competent administration
- A credible agency
- A reasonable cost

I believe, however, that all of the five "wickets" that Hibbard proposes are achievable (see Hale 2000).

We can achieve competent administration either by contracting with a professional testing organization, like Educational Testing Service, or, more surely, by creating the organization to administer the tests ourselves. This is where the legal argument against certification comes in. The argument is that any organization would be liable if they certified a professional and then someone charged that professional with dereliction of duty or malpractice. Of course, that is an issue! The resolution to that threat is not, however, to cower in fear and abandon the effort so that one can continue a comfortable, worry-free life. The question is whether certification is valuable enough to risk making it legally defensible. And, further, whether certification is valuable enough to create an administrative mechanism and a substantive process that is legally defensible. I believe that it is, and I will try to show why in just a moment.

### So, do we NEED . . . ?

All of the considerations above—although problematic and requiring much energy and creativity to resolve—are only the aggravating details of an issue that rises, for me, above the cost or failure to realize a return on investment or the threat of legal liability. But, still, the question arises "Do we need certification?"

For me, it has become an ethical issue. If we are a profession (and there are those who doubt it, but not me), then we need a mechanism by which that profession can be judged and held accountable for its work. There is no other profession that avoids that responsibility. The argument that certification (or licensure) is necessary only among professions whose practice potentially threatens the health and safety of society is clearly wrong. Many organizations whose members can do no real damage to health and safety have certification programs: financial planners, public relations specialists, construction managers, etc. And even if that argument were valid, clearly there are technical communicators whose work in communicating technical information has significant relation to the health and safety of the users of that information: nuclear power, high-pressure or high-heat manufacturing, etc.

*Certification is not only a professional but also an ethical issue.*

The technical communication profession must be held accountable for the work that its professionals do, for it is responsible. Professional associations of technical communication cannot, ethically, take the position that they are not responsible for incompetent practice. There are more professional certifications in the US than ever before; these organizations have not found the work environment so alien to their situations. In fact, most of them eagerly seek certification as a validation of the professional work that they do. Of course, we cannot require professionals to become certified; and the

## Qualification or Certification for ... (cont.)

likelihood of legal requirements is remote or non-existent. But any organization would not be liable, nor ethically responsible, for a professional who declined to participate—only for those who did—that is, if the organization offered a process by which the professional could become validated and by which it could fulfill its ethical and professional responsibility. Herein is the "need."

### Conclusion

From this argument, it is clear that an objective, fair, and meaningful system of certification will greatly benefit the profession of technical communication as well as individual technical communication professionals. Any reputable profession offering service to the consuming public owes itself and its consumers the validation that an objective, fair, and meaningful certification system would bring.

And it is ethically right. Professional technical communication societies would fulfill their responsibilities to the profession by beginning the movement towards an objective, fair, and meaningful system of validation of those working in the profession.

I call upon all professional technical communication organizations to begin a broad-based, comprehensive set of actions that will move us towards much-maligned, long-awaited, and sorely needed certification of technical communication professionals.

### References

Hale, Judith. (2000). *Performance-based certification: How to design a valid, defensible, cost-effective program*. San Francisco: Jossey-Bass Pfeiffer.

Hayman, B. (1994a, February). Do we need to upgrade our profession? *INTERCOM*, 3-4, 11.

---. (1994b, July/August). Recommendations of the *ad hoc* committee. Proof Sheet, 7-9.

*National occupational standards for technical communicators*. (1999). Accreditation Version. London: Institute for Scientific and Technical Communication.

NWCET [Northwest Center for Emerging Technologies] and Regional Advanced Technology Education Consortium. [1995]. Building a foundation for tomorrow: Skill standards for information technology. Bellevue, Washington: Bellevue Community College.

SAQ/TECOM-leitfaden betriebsanleitungen. (1995). (2. Auflage). Olten: SAQ Schweizerische Arbeitsgemeinschaft fuer Qualitaetsfoerderung und TECOM Schweizerische Gesellschaft fuer Technische Kommunikation.



### KENNETH T. RAINEY

Professor, Humanities & TCOM  
Southern Polytechnic State University  
1100 S. Marietta Pky.  
Marietta, GA 30060  
+1 770.528.7209 (voice)  
+1 770.528.7425 (fax)

## Summary of INTECOM Annual General Meeting Zurich, Switzerland, 18 and 20 October 2001

### *By Ron Blicq, President, INTECOM*

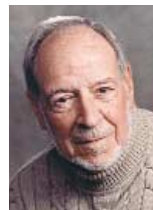
Here is a synopsis of the key results of the INTECOM AGM, 18 and 20 October 2001.

- 1) We approved the application by the Professional Communication Section of the Russian Popov Society to become an INTECOM member.
- 2) Michael Fritz, general chair of Forum 2003, reported on the 2nd meeting of the administrative committee held 17 October. A hotel/conference site has been selected in Milano, Italy, for 30 June and 1 and 2 July, 2003.
- 3) We adopted in principle a proposal from the publisher and editor of the independently published publication TC-Forum that their publication become the official INTECOM journal. Appointment of a coordinating editor and sub-editors from inside INTECOM will occur by 30 November (there will be a 12-month phase-in period with both the previous and new editors working together). There will be no financial impact on INTECOM. However, a committee was formed to examine how the journal can be funded; it will report electronically to the Board by January 31, 2002. We agreed that acceptance of their proposal can be voted on electronically, rather than wait 12 months until the next annual general meeting.
- 4) The existing executive board was re-elected for a further 20 months (to June 30, 2003).
- 5) We selected Finland as the site for the 2002 AGM, which will be held in conjunction with the STD 2002 conference (STD is the Finnish Technical Communication Society) between late August and early October.

The meeting was held in conjunction with the 2001 tecom conference, at which the focus was on developing CBT- and Web-based learning systems. I was invited by the conference committee to present a paper on a Web-based learning program currently in development.

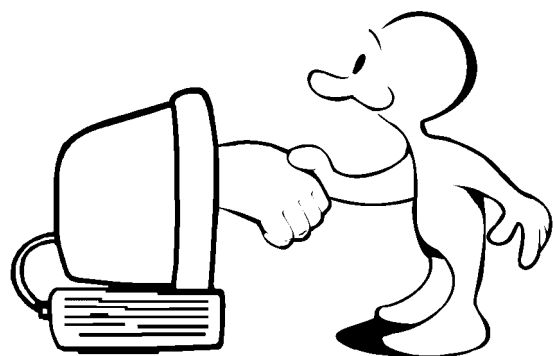
The committee very much appreciated Annette Verhein's efforts in making the arrangements, for providing the facilities and lunch and coffee breaks for the meeting, and for coordinating the tecom conference.

We also appreciated Jon-Erik Rye's dedicated efforts in recording the minutes during the discussions and decision-making.



**RON BLICQ**

Senior Consultant  
RGI International  
ronblicq@cs.com



## Technical Communication in Europe

A step towards higher quality standards for product information throughout the EU

By Ursula Wirtz, Germany

**When the EURO comes to bring the EU-countries closer together on the financial level, technical communication won't stay behind.**

In terms of quality standards for technical communication in the member and candidate countries of the EU, there is still a great deal of work to do – as delegates from the different national societies for technical communication in Europe stated unanimously at a meeting in Brussels on 1st April this year (see also article SA 27 in TC Forum 2/2001). The initiative for the

meeting had been taken by tekomp (Germany) and ISTC (United Kingdom). Among the represented societies were CRT (France), FTI (Sweden), ISTC (UK), STD (Finland), STIC (Netherlands), TECOM (Switzerland) and tekomp (Germany and Austria).

The delegates discussed and finally approved a joint declaration of intent on closer co-operation and the foundation of a European umbrella organisation called TCEurope. Co-operation can be as diverse as the relevant areas. Education, labour market and European-wide standards are only some of the priorities.

Facing a changing reality with industries, consumers and institutions, which are moving closer in the framework of the EU, the national societies have to find new strategies to meet the needs of their members more adequately and more efficiently.

In the meantime, almost all the national societies represented at the meeting in Brussels have ratified the joint declaration and decided to adhere to it. On 8th December a conference of presidents of the national societies will take place in Wiesbaden, Germany. The statutes of the proposed umbrella organisation will be discussed and voted upon. Hopefully TCEurope will be registered next year.

The joint efforts will focus mainly on the development of academic, vocational and further training and the standardisation of qualifications for technical communicators. It will also discuss

- supporting the foundation and development of national societies for technical communication in those countries where they are lacking,
- the transfer of knowledge and information in the field of technical documentation,
- increasing awareness in the institutions of the EU, and
- improving quality standards throughout the EU member and candidate countries.

Consequently, co-operation with the European standards bodies and the institutions of the EU will be closer in the future. Representatives of the two latter, as well as delegates from European consumer organisations and from the European societies for technical communication, were present at the first European colloquium on product information and consumer safety on 2nd April 2001 in Brussels. tekomp and ISTC managed to bring together for the first time all the parties concerned with this issue.

Cross-boarder projects such as organising joint conferences or creating networks and joint fund-raising could be important steps towards these goals.

It was also outlined in the declaration of intent that "the independence and the exclusive right of representation of the existing national organisations will not be affected by this proposed European organisation" and that "the national organisations will be free to continue their world-wide co-operation with all the other societies for technical communicators within the framework of INTECOM."

European  
umbrella  
organization  
for technical  
communication.



URSULA WIRTZ

tekomp  
Eberhardstr. 69-71  
70173 Stuttgart, Germany  
+49 711 65704-0(voice)  
+49 711 65704-99 (fax)  
info@tekom.de

## CRT - in a New Look

**By Marie-Louise Flacke**

The CRT (Conseil des Rédacteurs Techniques in France) is showing a new look in 2001: a new logo, a new website and a discussion list.

Members have been active using our Forum discussion list, sharing questions, experience and stories. This list is open to all INTECOM members. Access to the list is granted by sending a request to [crt@conseil.org](mailto:crt@conseil.org). The list welcomes posts in English and French.

Although CRT is small in numbers, it is already acquainted with the "big" sister societies, such as tekomp (Germany), ISTC (Great Britain) and other Technical Communicator groups in Europe. We were very pleased with the initial contacts made in Brussels early in 2001 aimed at establishing a new umbrella organization for technical communicators in Europe (see the previous page).

Together with tekomp (Germany) and Tecomp (Switzerland), CRT invites Technical Communicators to participate in the first bilingual (German-French) Conference on Ergonomics in Technical Documentation to take place in Zurich in April 2002. To ensure proper translation, tekomp invited fellow translators/interpreters from the University of Magdeburg (Germany) to join the conference and provide simultaneous translation.

Like most of its fellow societies, CRT suffers from a lack of visibility. The profession is generally not recognized in France. To increase the business awareness for good documentation, CRT plans to add more content to its website and to conduct a survey to identify those in France acting as technical writers but who are not aware of the profession. Articles in the French-speaking press are also being considered.

Training in France is provided by 7 academic institutions and addresses various aspects of Technical Communication such as Localization/Translation, Documentation management, and bilingual training.



*Officers:*

**President:**

Alain ROY

[alain.roy@worldonline.fr](mailto:alain.roy@worldonline.fr)

*Past President and Treasurer:*

Jean-Paul BARDEZ

[jean-paul.BARDEZ@gemplus.com](mailto:jean-paul.BARDEZ@gemplus.com)

*Web Master:*

Bernard SOUKOFF

[bernard.soukoff@wanadoo.fr](mailto:bernard.soukoff@wanadoo.fr)

*Intecom Delegate:*

Marie-Louise FLACKE

[flacke@editions.net](mailto:flacke@editions.net)



**MARIE-LOUISE FLACKE**

e-mail : [crt@conseil.org](mailto:crt@conseil.org)

Web Site : <http://www.conseil.org/crt>

## Give them Printed Documentation, too!!! · RU 31

By Mike Starr, USA

I have a theory about software documentation and tech support calls. It's not supported by any research that I know of, but then, I haven't bothered to check that, either. My theory is that customers will look for the information they need in their preferred type of documentation, whether it be print or online. If they don't find what they need, their next step is to pick up the phone and call the tech support number without bothering to look at the other documentation form (even if it's available).

The current trend among technical communicators is a twisted form of minimalism that says the documentation should contain procedural documentation but little or no reference documentation. I believe that this trend is a disservice to our customers and tends to increase technical support costs because customers subjected to this form of documentation have little or no access to the information they need. If it's not there, they can't find it.

Now, this is pretty much off topic and doesn't argue in favor of or against printed documentation. It only argues in favor of complete documentation. I just thought I'd throw that in here because there's not enough for a separate article. I wanted you to think about that, too. Maybe one or more of you know something about this theory that I don't. If you do, I'd be happy to hear from you about it.

I believe that we as technical communicators have an obligation (seldom part of our formal job descriptions) to be a strong advocate for policies that will benefit the users (our customers). One way we can fulfill that unwritten obligation is to argue in favor of comprehensive printed documentation. I believe that printed documentation is important and that many of the common arguments against it can be overcome.

This article addresses several of the arguments I've heard against printed documentation:

- It's too expensive to print a comprehensive user's manual for the product; we can give the customer all the documentation on disk and it doesn't cost us anything extra.
- Paper documentation becomes obsolete too quickly. If we give them online documentation, they can get the latest documentation readily.
- Nobody reads the manuals anyway.
- The demands of paper and online documentation are so disparate that they would require two completely separate writing projects.
- It's what Microsoft does and they're setting the industry standards; why should we do anything different?

I'd like to address each of those arguments in this article.

### It's too expensive to print

I worked on a project once where I created a printed user's manual that was in excess of 650 pages, perfect bound. Now, this was a real Cadillac of a user's manual. I put everything in there that I could conceive of that the user might need or want and a few other things that I thought might be useful even though they weren't **requirements**. I put in everything I would want in the user's manual if I were the customer.

We ordered 10,000 copies at a time, and the cost of these manuals was approximately \$6.50 each in that quantity. Now, I have to tell you things got a little tense in the accounting department when they got a bill in excess of \$65,000 for printing. But, they weren't seeing the big picture either. The product these manuals documented had an approximate street price of \$1000. The cost of the manuals as a percentage of the income, then, was 0.65% (that's six-and-a-half tenths of a percent). And we reordered another 10,000 manuals after six months!!!

Shortly after the publication of this manual, I stumbled on a clipart collection that sold at retail for about \$50 and included a 500-page book with all the clipart printed out. I would have to guess that their cost of publication for that 500-page book was roughly proportional to the cost of publishing our 650-page book, so I'd estimate that they were spending about \$5.00 per book. Now, I ask you, if they could sell a \$50 product with a book that cost them about \$5.00 (10% of the retail price), why were we getting tense about the \$6.50 per unit cost of printed manuals for our \$1000 product??

You have to look at the big picture here. Sure, a \$65,000 printing bill is huge, but how much income did we produce? Could we have put that same documentation online and saved \$6.50 per unit? Sure we could have. But, we were making a good profit on the product and our customers (as well as our tech support staff) loved the manual. No need to be stingy. How do you feel when you open the package for a \$1000 product that doesn't even have a manual? All you get is a CD-ROM that you know cost them about one dollar to manufacture.

### Paper documentation becomes obsolete too quickly

Paper documentation does not become obsolete any faster than online documentation. The only difference is that there is some lead time built in for the paper products to arrive from the printer. Can online documentation be much more up to date? Sure it can, if it's the only thing anybody is assigned to maintain. But if you do both online and printed documentation and maintain them, you should be able to keep the printed documentation just as up-to-date as the online documentation. With available print-on-demand processes, it's possible to print and ship a manual that's just as up-to-date as the online documentation.

### Nobody reads the manuals anyway

To a certain extent, this may be true. How many times do you pick up a new software package and read the manual (if you're fortunate enough to get one at all)? But, when you want some information about the product, it's a good thing to have. There are people who would rather use a printed manual than an online help file (of course, there are also other people who would rather use an online help file than printed documentation).

Printed documentation has several advantages over online documentation:

- You can throw it in your briefcase and take it home.
- You can look at it without sacrificing onscreen real estate.
- You can stick a bookmark in between the pages and go right to the page you frequently need.
- You can highlight text that you find important.
- You can make notes on it.
- You don't have to have the computer turned on to make it work; you don't even have to have a computer!

### It would require two separate writing projects.

One argument that has been made repeatedly is that the demands of paper and online documentation are so disparate that they would require two completely separate writing projects. They say "You just can't make a help file out of a printed manual. You have to write it entirely differently." I suggest they're wrong. Why? Because I've done it.

## Give them Printed ... (cont.)

I maintain that if I do a thorough job when I create the printed documentation, it's going to contain a paragraph or paragraphs that document each object in each dialog box, each item on each menu, and so on. That same printed documentation is also going to contain task-based documentation for the most common tasks (as identified by the subject matter experts, and me). And if I do it well, and organize it well, it's going to be a simple task to convert it into a help file that gives complete reference information as well as what's this help for every object in the product.

At the time I originally wrote this article, I wasn't aware of any products designed to facilitate "single-source" of printed and online documentation. I did it with Microsoft Word and ForeHelp and it took me very little time to convert my user's manuals from print to WinHelp. The process is even simpler now with the latest tools.

### It's what Microsoft does

There's no question about it: that's what Microsoft does. But the bigger question is: Do we have to do it too? I say no. Microsoft can get away with it; for all intents and purposes, they really don't have any competition. Most of the rest of the world does. And when it comes to the little things about your product that make the difference in a purchase decision, documentation can be one of them. There's nothing like going in to a major client who's thinking about switching to your competitor and tossing a good sized manual on his/her desk and asking them to compare it to the skimpy manual (or pamphlet) that comes with your competitor's product.

And let's face it: Microsoft is not a model of good documentation. The only times I've heard Microsoft and documentation mentioned in the same sentence, the references were not complimentary.

Take a look at the product reviews in the computer magazines. Documentation is one of the critical things they evaluate. It's a real good thing to have a good write-up in one of those magazines and a comprehensive manual can help you get there. Of course, good documentation can't make a lame product good, but it can be the difference between two otherwise equal products.

### Conclusion

I think I've addressed most of the arguments I've heard against printed documentation. I strongly believe that users want quality, comprehensive printed documentation and that we as technical communicators should be advocates for it.



#### MIKE STARR

WriteStarr Information Services  
 Technical Writer - Online Help Developer -  
 Technical Illustrator  
 Graphic Designer - Desktop Publisher -  
 MS Office Expert  
 + 1 262 694-1028 (voice)-  
 + 1 262 697-6334 (fax)  
 mike@writestarr.com  
 www.writestarr.com



# Why You Should Create A Web Site · RU 32

**By Alexander von Obert, Germany**

"Everyone" wants to be in the Web. But why should he or she? Having answered the question: "How do you reach your goal?" You might be interested in my experiences. My Web site <http://www.techwriter.de> has been online for three years and enjoys some 300 visits a day.

## Me too?

Some sites exist for their own sake. The author creates them instead of painting pictures in his spare time. Or you put your holiday snapshots there hoping that aunt Berta might enjoy them before the next family gathering – if aunt Berta visits one of her nephews who has Internet access. I am not sure whether this kind of exhibitionism on the Internet is necessary. I would prefer to design a family magazine and distribute 20 print-outs of it by (conventional) mail.

There are people who still dream of easy money through the Internet. They put lots of advertisement banners into their pages. But compare your access logs to the banner tariffs of established sites and you quickly lose your illusions: you might get \$10 US per 1000 hits. You might even remember that you should pay taxes for this kind of income and suffer even more legal complications.

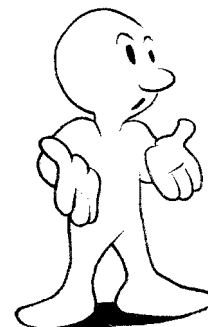
## The Message

Your first question should be: What should be the goal of my Web site? There is more to this than appears on first sight. A few examples:

- You might decide to hide your site. A friend of mine found a very interesting and well paid job this way. He had placed his resume onto some Web space his ISP provides. He gave the URL to a head hunter who called him. This provided him the head start he needed.
- You could supplement your hobby by a Web site. This could give you quite some publicity

among other enthusiasts. But you must offer some added value to them. More about that later.

- Some companies have their glossy-print papers converted. You might find the company address and the CEO's head and perhaps some atmosphere – but not much more. Such a site might cost you more than \$10,000, possibly several dollars per visit. If some important people among your customers like it this site might be worth its money.
- You could use your Web site to offer some examples of your work. An artist might show pictures of his statues and publish the dates of his next exhibition. My goal was to show that I can organise and present complex materials. A company might choose to publish a glossary about its area of competence. The most important aspect must be: Offer added value to the surfer! Otherwise the surfer will never come back and will not tell others about your URL.
- If done intelligently, a Web site might help a not-for-profit organisation or self-help group. For possible clients this might be the only way to find the group and the volunteers might be relieved from other routine tasks. You could publish leaflets and other materials. But it will not work if you show prominently a membership application form and a list of your membership fees. As always, especially on the Web, you must offer added value.



## Why You Should... (cont.)

### The Form

Over the years many possibilities were developed to create ever more complicated Web sites: Everything blinks and jumps, 3D animations flow over the screen – there are quite some possibilities to express yourself. But do they help? If you are interested in repeated visits you should forget most of this. As a technical illustrator you must show a few of your better drawings. But your steady visitors are interested in especially two things: speed and content. If they are forced to wait for two minutes until your expensive Flash movie has been loaded they will hardly come back. You should enable deep linking. The favourites list then can directly point to the most attractive pages of your site. This alone should motivate you not to use frames (and they will disappear in one of the next updates of the TC-FORUM site).

Your bread-and-butter work might hardly be published on glossy paper – recycling paper might be more common. So why should you try to show that you might be able to create extremely complicated layouts? None of your customers might be interested in that. Use that freedom to create a simple, useful design. My own site does not even push the outdated HTML 3.2 standard to its limits. But it is extremely fast and easy to navigate. And it shows my special abilities in creating electronic documents, which is a big part of my message.



#### ALEXANDER VON OBERT

Urbanstr. 2  
90480 Nuernberg  
Germany  
+49 911 40 39 03 (voice)  
+49 911 40 39 04 (fax)  
avobert@techwriter.de  
<http://www.techwriter.de>

### Bibliography

Jakob Nielsen: Designing Web Usability: The Practice of Simplicity. Indianapolis, 1999 (ISBN 1-56205-810-X)

### A Few Examples:

<http://www.jump.net/~fdietz/glossary.htm>  
Frank Dietz's Glossary Links

<http://www.prc.dk/user-friendly-manuals/home.html>  
Peter Ring's User Friendly Manuals' Website

<http://www.angelfire.com/in/Limba/>  
Gherguta Translations

<http://www.traduccion.cl/>  
Traducciones Alemanas

<http://home8.inet.tele.dk/p-spitz/>  
Peter Spitz's Translation Links

<http://www.cherrak.de/>  
Anke Cherrak

<http://www.abc-brandenbusch.de/>  
Üwe Brandenbusch

<http://www.overlookhouse.com/>  
Walden Wired

<http://www.soltys.ca/index.htm>  
Keith Soltys International Resources for Technical Communicators

<http://www.islandnet.com/wordsmith/>  
Taylor Wordsmiths: Writer's Virtual Bookshelf

<http://www.tech-tav.com/>  
Tech-Tav

<http://www.geocities.com/Athens/Parthenon/8565/>  
J. Nesbit's English Pages

<http://www.helpmaster.com/>  
Help Master

<http://www.infodesign.com.au/>  
Information & Design Guides

# AECMA 1000D - Goal and Reality · RU 33

*By Stefan Just, Germany*

**The contribution deals with the transposition of projects on the basis of the AECMA-1000D-specification.**

**The author explains problems which exist outside aeronautics with the application of this specification.**

**What does the AECMA-1000D-Specification Comprise?**

AECMA 1000D is an International Specification for Technical Publications utilizing a Common Source Data Base (CSDB).

## What are the intended benefits of using the specification?

- It is based on internationally agreed neutral standards.
- It reduces maintenance costs for technical information.
- It allows sub-sets of information to be generated to meet specific user needs.
- Transfer of information and electronic output is facilitated between disparate IT systems.
- Many different output forms can be generated from the same base data thus ensuring safety of data and that every user regardless of output form is getting the same message.
- The AECMA 1000D data module concept can be and has been applied to legacy data.
- It is Non Proprietary and allows neutral delivery of data and management of data.
- It uses the CALS philosophy of "create once use many".

The basic problems when applying the AECMA 1000D-specification outside aeronautics result from the development of this specification. It was conceived for aeronautics from the beginning and has been developed step by step. Up to the present time the Document Type Definitions (DTD) describe aeronautics specific processes.

The specification consists of six basic DTD's:

- (1) Air Fault - air fault isolation information data modules
- (2) Air Crew - aircrew data modules
- (3) Description - description data modules
- (4) IPD - illustrated parts data modules
- (5) Procedural - procedural data modules
- (6) Schedule - maintenance planning data modules

The Description-DTD can generally be considered usable also outside the area of aeronautics since one can describe any technical situation with help of the available elements and attributes. All other DTD's reflect processes of aeronautics. Above all the Air Fault-DTD, the Air Crew-DTD and the Schedule-DTD describe processes that are typical of aeronautics.

Therefore a transfer to other processes is very difficult. This should be illustrated by an example:

In the Procedural-DTD, there is the element PRELREQS (Preliminary Requirements). This in turn contains the element PMD ( Production Management Data). PMD contains the element THI (Threshold Interval) with the attribute UOM (Unit of Measurement for the Threshold Interval).This attribute can contain 14 entries:



## AECMA 1000D (cont.)

FLTHRS	=	Flight hours
FLTCYC	=	Flight cycles
MONTH	=	Months
WEEKS	=	Weeks
YEARS	=	Years
DAYS	=	Days
SUPERCYC	=	Supersonic cycles
PRESSCYC	=	Pressure cycles
ENGCYC	=	Engine cycles
ENGCHG	=	Engine change
SHOPVIST	=	Shop visits
APUCHG	=	Auxiliary power unit change
LANDGCHG	=	Landing gear change
WHEELCHG	=	Wheel change

Under the prerequisite that no DTD-modifications are planned, this means that these entries have to be used. Looking at a motor vehicle, a ship or a radio-station instead of, for example, an airplane, one recognizes the difficulty of such a transfer. None of the mentioned examples belongs to the supersonic area or owns landing gears. In projects outside aeronautics, many companies have therefore tried to simplify the AECMA-DTD's so that one doesn't use many optional elements. Many projects even use only the Description-DTD and the Procedural-DTD. From that follows, of course, that the intended advantages don't result. Thus the very high expenditure for such projects is no longer justified.

From the author's point of view, this unsatisfactory development is caused by the following problems:

1. The AECMA 1000D-specification is based upon the CALS-model. As a very complex theoretical model, it does not portray and insufficiently processes real economic. Therefore many projects did not succeed in conveying the necessary data regarding quality and quantity, and in the requested time.
2. Other problems emerge from the AECMA-organization and the performance of the documentation concept. The representation in the existing modular form is very unclear and, understandable only with a very high expenditure for highly qualified specialist personnel. The concept of creating data modules is a very good method for processing data but it shows that there can be problems of intelligibility. In Germany and Europe, very few companies can pay such highly qualified specialists over a long time period. Furthermore, the permanent postponements in the development of the specification cause a lot of problems in the management of such projects.
3. It is not possible to represent all technical structures and industrial processes with economically justifiable methods in only one system.
4. The AECMA 1000D specification deals with the representation and standardization of data. From the author's point of view, the consistent further step is missing; that is, making a retrieval system available. Experience has shown that it is no use producing data at very high costs without knowing exactly how further processing can take place.

As I have no information on projects, beyond aeronautics, using the exact specification in full scope and compatibility in Germany and Europe, I would be very grateful for comments and suggestions.



**DR. STEFAN JUST**

Interactive Electronic Technical  
Documentation (IETD)  
IImDat GmbH  
+49 3677 8782-0 (voice)  
+49 3677 8782-20 (fax)  
ilmdat@ilmdat.de  
www.ilmdat.de

# Writing Translatable Texts Saves Time and Money · TR 21

By Gabriele Vollmar, Germany

**"The 'part', could be called a 'piece', a 'section' or also a 'product' for a change", thinks the technical editor to himself, while writing the documentation for a new semi-automatic stamping and book binding machine. After all, everyone learns in school that you should write using a great variety of words. But how is the poor translator who gets to translate this documentation supposed to know that it always refers to one and the same item?**

With a text taking into account controlled language such pitfalls can be avoided. That means it can be more quickly and inexpensively created and is of a uniform high quality, because

- it is easier to read and it is understandable,
- the number of mistakes caused by misunderstandings is reduced,
- the research effort by the translator is minimized,
- the translator has more time to use for the optimal translation of the really difficult sections, and
- the utilisation of translation memories or other translation tools is more efficient.

Last but not least a translatable text is an understandably written text in the first place; this affects the quality of the source documentation, and so indirectly but positively affects the image of the product.

Using a uniform glossary and formulating phrases in a uniform manner is also very important when writing translatable documentation. In addition, the consistency of the terminology in the source text improves the number of matches during the pre-translation with the translation memory. This means writing compounds (with or without a hyphen) as well as descriptions and formats for descriptions of actions need to be specified in a binding manner.

Beyond that, the technical editor should attempt to build his or her texts according to clear structures and definite grammatical rules. This means, for example, that causal clauses are

always structured according to the same syntaxes and titles are uniformly formulated, either in nominal form ("opening of the bonnet") or verbally ("open the bonnet").

The observation of the following rules, not only with respect to the use of translation memories, is recommended:

- Specify one definite meaning for every word.
- Do not use any synonyms.
- Explain new terms and abbreviations.
- Do not use any 'filler' words.
- Do not build any complex sentence structures.
- Support any direct commands with the respective sentence structure.
- Maintain a logical order of events (first the cause, then the effect).
- Use the present as tense.
- Define only one request for action per sentence.
- Insert language independent illustrations.

Note: At *transline*, with the help of a checklist, the most important lingual and formal criteria for creating translatable documentation can be checked, not only such as the use of special terms, compounds, neologisms, formulation in a nominal or a passive style and so forth, but also use of available "free space" in the layout for those sections of text which might be too long for the foreign language. This expertise shows deficits, which can then be corrected together with the technical editors.

Gabriele Vollmar has been with transline group, Reutlingen; since 1st November she is with Bertelsmann Stiftung Guethersloh.

For further information refer to:  
[www.doculine.com/news/2001/0401/uebersetzungsgerecht.htm](http://www.doculine.com/news/2001/0401/uebersetzungsgerecht.htm)  
 or contact  
 Andreas Walther at [walther@transline.com](mailto:walther@transline.com)



**GABRIELE VOLLMAR**

Bertelsmann Stiftung  
 Carl-Bertelsmann-Str. 256  
 +49 5241 81 81 345 (voice)  
 +49 5241 81 681 345  
[gabriele.vollmar@bertelsmann.de](mailto:gabriele.vollmar@bertelsmann.de)  
[www.stiftung.bertelsmann.de](http://www.stiftung.bertelsmann.de)

**SECOND CALL FOR PAPERS**

29-31 May 2002;  
Workshops: 27-28 May and 1-2  
June 2002  
Las Palmas, Canary Islands (Spain)

**LREC 2002: Third Language  
Resources  
and Evaluation Conference**

The Third International Conference on Language Resources and Evaluation is organised by ELRA in cooperation with other Associations and Consortia, including ACL, AFNLPA, ALLC, CLASS, COCOSDA, ORIENTAL COCOSDA, EAFT, EAGLES/ISLE, ELSNET, ENABLER, EURALEX, FRANCIL, ISCA, LDC, ONTOWEB, PAROLE, TEI, etc., and with major national and international organisations, including the Commission of the EU Information Society DG, DARPA, NSF, and the Japanese Project for International Co-ordination of East-Asian Spoken Language Resources and Evaluation. Co-operation with other organisations is being sought.

With support of TELEFONICA Foundation (of Spain) and support sought from the Commission of the EU and other institutions.

The detailed second Call for Papers for the Third LREC conference is available on the Internet at [www.lrec-conf.org](http://www.lrec-conf.org)

For more information about ELRA (the European Language Resources Association), please contact:

**Khalid Choukri, ELRA CEO**  
55-57 Rue Brillat-Savarin,  
75013 PARIS, FRANCE  
+ 33 1 43 13 33 33 (voice)  
+ 33 1 43 13 33 30 (fax)  
choukri@elda.fr  
<http://www.elda.fr/>

**CALL FOR PAPERS**

17 - 20 September 2002  
Portland Marriott City Center,  
Portland, Oregon, USA

**IPCC 2002, Reflections on  
Communication**

Join us at IPCC 2002 in Portland, Oregon, September 17-20, 2002. The conference theme "Reflections on Communication" will encompass and advance written, graphical, spoken, and online communication within the context of engineering, science, and technology. Sessions offer both fundamental and leading-edge developments in communication theory, and technology. We are looking for papers in the following categories:  
abstract conceptualization, active experimentation, concrete experience, and reflective observation.

Submissions are due by March 8, 2002 to [pamela.kostur@sympatico.ca](mailto:pamela.kostur@sympatico.ca). Portland is the jewel of the Pacific Northwest, offering a range of sights, sounds, and tastes for everyone. Come to IPCC 2002 and share your reflections. See our web site at <http://www.ieeeecs.org/2002/> for detailed information.

**Julie M. Gephart**  
Awards Specialist/Senior Technical  
Writer  
Pacific Northwest National  
Laboratory  
P.O. Box 999, K9-41  
Richland, WA 99352 USA  
+1 (509) 375-2853 (voice),  
+1 (509) 375-6731 (fax)  
[Julie.Gephart@pnl.gov](mailto:Julie.Gephart@pnl.gov)

**National Contact  
Persons (NCPs)**

- Austria:**  
Victoria Koster-Lenhardt  
[vkosterlenhardt@eur.ko.com](mailto:vkosterlenhardt@eur.ko.com)
- Australia:**  
Julie Fisher • +61 3365 2592 (fax)  
[strype@onaustralia.com.au](mailto:strype@onaustralia.com.au)
- Belgium:**  
Patrick Goyvaerts • +32 3 240 3759 (fax)  
[goyvaerp@bec.bel.alcatel.be](mailto:goyvaerp@bec.bel.alcatel.be)
- Brazil:**  
Delio Destro • +55-16-236-4955 (fax)  
[ddestro@flexwrite.com](mailto:ddestro@flexwrite.com)
- Canada:**  
Ron Blicq • +1 204 488 7294 (fax)  
[rgi\\_ron@compuserve.com](mailto:rgi_ron@compuserve.com)
- Denmark:**  
Thomas O'Connor • +45 4226 9322 (fax)  
[toc@foss-electric.dk](mailto:toc@foss-electric.dk)
- Finland:**  
Maria Lahti  
[maria.lahti@sonera.fi](mailto:maria.lahti@sonera.fi)
- France:**  
Marie-Louise Flacke  
[flacke@editions.net](mailto:flacke@editions.net)
- Germany:**  
Brigitte Beuttenmüller • +49 711 657 40 13 (fax)  
[bb@beutenmueller-bad.de](mailto:bb@beutenmueller-bad.de)
- India:**  
Vishadkhadutt D. Patil • [vdpat@yahoo.com](mailto:vdpat@yahoo.com)  
Frederick Menezes • [fmenezes@veritas.com](mailto:fmenezes@veritas.com)
- Israel:**  
Julian Zelenko • +972 9771 8189 (fax)  
[techstyl@netvision.net.il](mailto:techstyl@netvision.net.il)
- Italy:**  
Riccardo Renna • +39 59 898305 (fax)  
[riccardo.renna@tetrapak.com](mailto:riccardo.renna@tetrapak.com)
- Netherlands:**  
N.N.
- Norway:**  
Tove Østberg • +47 2202 6050 (fax)  
[tove.ostberg@comtext.no](mailto:tove.ostberg@comtext.no)
- South Africa:**  
Chris Curwen • +27 16 3492031 (voice/fax)  
[info@curwen.za.com](mailto:info@curwen.za.com)
- Spain:**  
J. Antonio Bardera Pinuela • +34 945 185 099 (fax)
- Sweden:**  
Johan Näsström • +46 8 649 20 11 (voice/fax)  
[johan.nasstrom@odata.se](mailto:johan.nasstrom@odata.se)
- Switzerland:**  
Annette Verhein Jarren  
[averhein@hsr.ch](mailto:averhein@hsr.ch)  
Reto Schilliger • +41 1 767 18 66 (voice/fax)  
[rschilliger@access.ch](mailto:rschilliger@access.ch)
- United Kingdom:**  
Anke Harris • +44 1202 294222 (fax)  
[harris@mapline.com](mailto:harris@mapline.com)
- USA:**  
Mary Wise  
[mwise@manu.com](mailto:mwise@manu.com)  
Thomas L. Warren • +1 4057 446 326 (fax)  
[twarren@okway.okstate.edu](mailto:twarren@okway.okstate.edu)

Please feel free to contact either the Editor or your NCP for any questions concerning TC-FORUM.