

Track 4 Background and Purpose

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Track 4 (Ada in Practice) was instituted as part of TRI-Ada '89 because few formal paper submissions had dealt with lessons learned from actual Ada usage in real-world, for-profit projects. The success of Track 4 sessions at TRI-Ada '89 led to continuation this year. The purpose of Track 4 is in-depth presentation of Ada development efforts from the perspective of systems engineering, software engineering, design, compiler implementations, tool capabilities/deficiencies, personnel, and policy decisions/rationale. The focus is on aggregate project decisions, tradeoffs, and rationale. Track 4 also differs from other conference sessions in that each presentation is 90 minutes long and extensive audience interaction is a part of each session.

The Track 4 concept acknowledges that the current "system" for writing and clearing papers may place obstacles in the way of obtaining papers which are reflective of real experience. For example,

- personnel in front-line positions on critical programs are generally too busy to generate formal papers;
- the DoD/contractor approval cycle must be complied with, and
- companies must deal with the issue of competition sensitivity when putting activities and decisions into a formally written paper.

Rather than *describing* programs, Track 4 presentations focus very strongly on alternatives/rationale for design decisions; in other words, the "why," not the "what." Track 4 presentations are selected based on the degree to which they contain specific rationale for decisions on the following subjects:

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| • Difficulties encountered | • System size and complexity determination |
| • Substantive technical issues | • Compiler and tool problems |
| • Quantitative system data | • Usefulness of management techniques |
| • Hardware architecture | • Why Ada was beneficial/not beneficial |
| • Software architecture | • What would be done differently next time |
| • Tradeoffs among hardware, systems software and applications software | |

Each Track 4 presentation is the result of cooperative effort between the selected project and a member of the TRI-Ada '90 staff known as a rapporteur. The rapporteur works with the project over a period of months to:

- optimize the presentation's targeting of the criteria for these high-potential sessions,

- insure the potential for audience interaction,
- and moderate the session at the conference

The success of Track 4 sessions is, in no small part, due to the work of the rapporteurs; their efforts are hereby acknowledged.

NOTE: Because Track 4 presentations are not published in conference proceedings, the most timely and relevant information can be presented at the conference. Track 4 presenters customarily bring copies of their presentations for distribution at the conference.