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SCTA Tracer: A Distributed Environment for Standardized Awareness Support Assessments



Challenge

Appropriate **awareness support** has been an ongoing research issue for the past decades

Awareness, in this context the knowledge about team members, their activities and their shared artefacts, is a vital part of cooperative work

Two major **challenges**:

- Awareness is ephemeral by nature
- Awareness is a secondary task

Many individual approaches to assess the effectiveness of an awareness support system.. unfortunately **no standards**

SCTA Concept

Hypothesis: if somebody is aware of something then s/he can answer questions about quickly and with no error

Building blocks facing the two major challenges:

- Standardised task (letter counting)
- Measurement approach (freeze probe questionnaire)

Organisation:

- Assessment runs (same test persons)
- Assessment sessions (same system version)
- Assessment traces (same system)

SCTA Game

Assessment Run (15 min)

- Letter counting
- 1. Freeze probe
 - “Who counted D’s”?
- Letter counting
- 2. Freeze probe
- Letter counting
- 3. Freeze probe

Evaluation: Quick response times and low error rates indicate reasonable awareness support



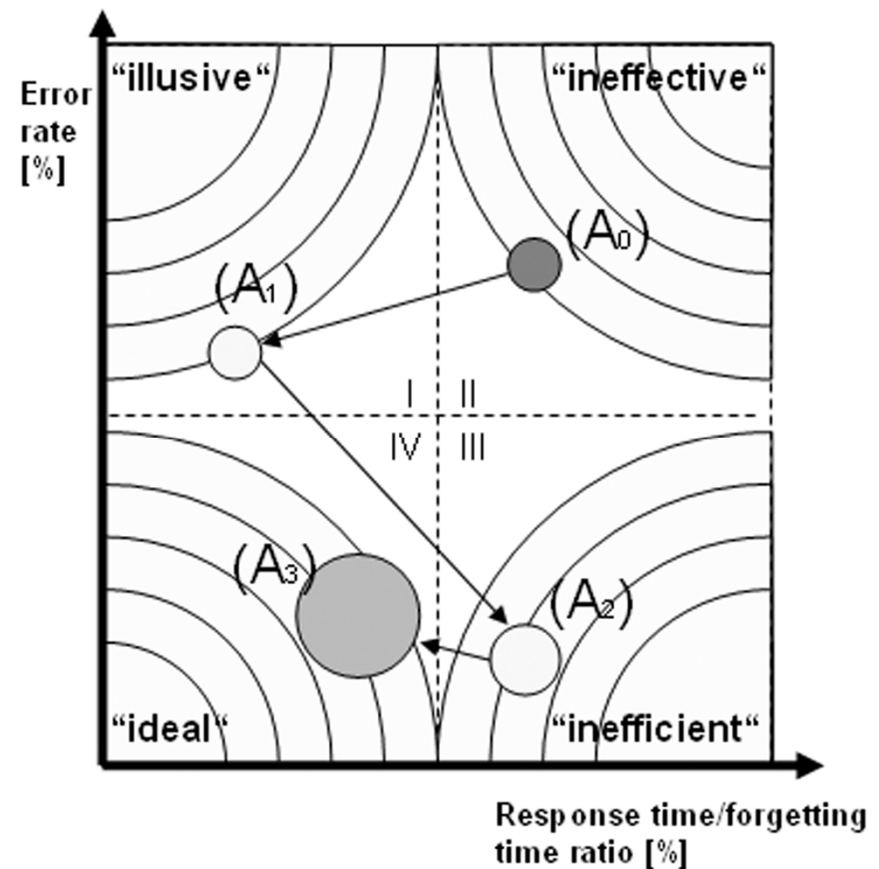
SCTA Result

Four measures:

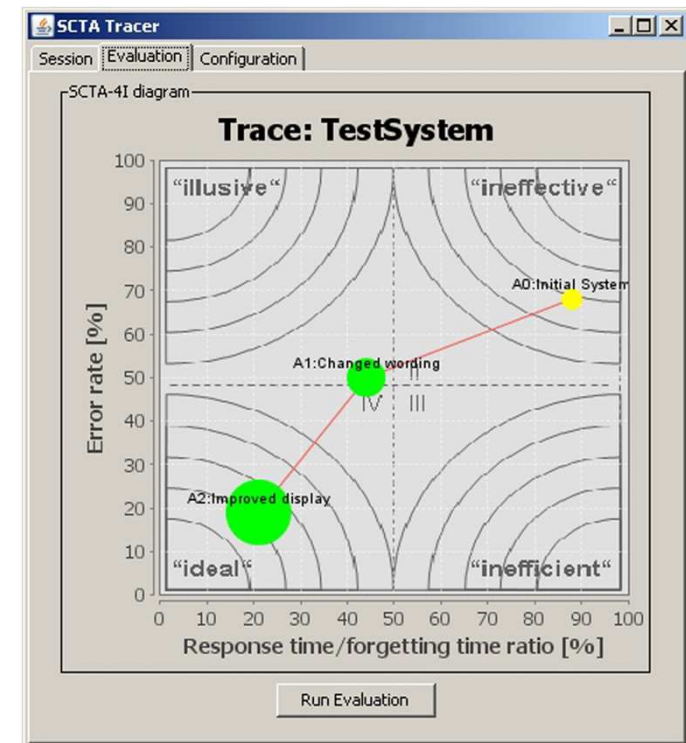
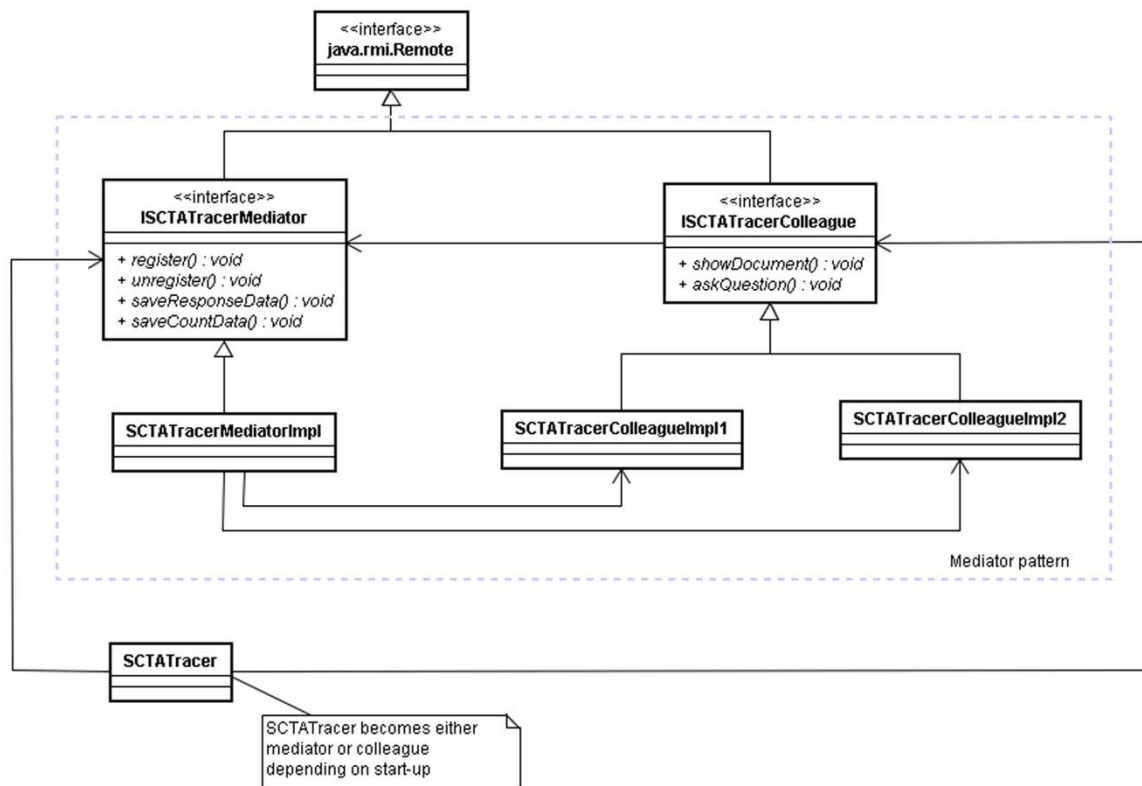
- Average response time
- Error rate
- Coordination errors
- Performance

The 4I-diagram:

- Illusive
- Ineffective
- Inefficient
- Ideal



SCTA Implementation



The End

Thank you for
your attention!!