SOFTWARE QUALITY

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Focus Area Champion:	Marvin Doran
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Participants	

- Definition
- Metrics
- **World Class Performance**
- **Best Practices**
- **Best-in-Class Recognition**

I. DEFINITION

Software Quality is the level of these attributes that meet customer/market expectations:

A.
- A.1 customer satisfaction
- A.2 level of customer complaints
- A.3 forward and backward compatibility
- A.4 minimum number of updates to the software (problems, expectations, new Functions)

B.
- B.1 transparency (users don't care whether functionality is implemented in software or hardware
- B.2 simple to use
- B.3 usability
- B.4 user friendly

C.
- C.1 traceability (verify/validate/review)
- C.2 building right product
- C.3 conforming to requirements
- C.4 testability
- C.5 building product right
- C.6 functionality
- C.7 maintainability
- C.8 ease of retrofit
- C.9 modularity
- C.10 reusability
- C.11 reliability (continuous operations)
- C.12 expandability

C.13 adaptability
C.14 configurable
C.15 flexibility
C.16 fault tolerant
C.17 robustness
C.18 interoperability

D.

D.1 cost effective (within the budget)
D.2 total cost of user (user's perspective)

E.

E.1 on-time delivery

Software Quality is also
part of organizational culture,
context sensitive,
both quantitative and qualitative,
relative,
multi-faceted,
absence of defects,
management of defects,
and no surprises (customers)

Software Quality is **not**

just conformance to customer requirements,
tested in,
an added-on (must be in at design, not a quality module),
Microsoft,
necessarily zero defect,
what developers think it is,
easy to capture in a specification,
a fixed attribute (it is dynamic),
cheap or free,
cosmetic,
hardware quality,
or just defects.

II. METRICS

(Not covered at workshop)

III. PARTICIPANTS

The working group participants consisted of the following industry professionals.

NAME	AFFILATION
Doran, Marvin	Nortel
Gebauer, Edward	Carnegie Mellon
Hanel, Damian	Nortel
Harrison, John	BT Systems
Higuera, Ronald	Carnegie Mellon
Holmes, Michael	Lucent Technologies
Huang, Steel	Lucent Technologies
Rak, Dan	Lucent Technologies
Yu, Weider	Lucent Technologies
Zamanali, Jalal	Lucent Technologies