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PROCEDURAL RELIABILITY

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Participants	

I. DEFINITION

Product Reliability is . . .

"A reliable Procedure is:

A set of steps that will ensure that any user with the appropriate skill set can complete the correct task without error."

NOTES

A Reliable Procedure definition may not include the full scope of Procedural reliability.

Procedural Reliability is not . . .

Aspects/Related Issues:

- A measure could be that the procedure is repeatedly reliable
- Need to measure complexity appropriate to user level
- Can minimize but not eliminate the human element
- Minimize human intervention - reduce human interaction required to perform procedure (there is a fine line between automating to much or to little)
- Procedures must be written via user centered design practices
- Procedural reliability needs to be considered through out software/product design/development
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Many procedures are done in the maintenance window (development and testing of procedures must be done in real world conditions)
- Multiple procedures performed in parallel introduce a possibility of outages/errors
- One reliable procedure for user 1 may not be reliable for user 2.
- Need a distinction between procedural reliability and end user knowledge
- Skill set needs to be defined.
- A defined skill set may not be include prior experience with the procedure
- Experience with procedure contributes to Procedural reliability
- Experience does not guarantee procedural reliability
- Is the procedure recoverable when a mistake is made?

Goal:

Make all documentation perform like a salt shaker. Use it incorrectly and nothing happens.

II. METRICS

Procedural Reliability can be measured by . . . the number of procedural caused outages vs. the total number of outages

But we need additional metrics to measure procedure reliability.

They could be:

Field metrics: The number of failures over time as the number of incidences/opportunities

The number of user induced errors vs. total errors

Items that require more investigation/work and RECOMMENDATIONS:

- We need control metrics for executions in the field.
- To resolve Procedure Related problems requires a broad indication of related data/root cause analysis
- We do not have a process to identify the number of times a procedure works correctly
- We need to model procedural failures to begin to build a database of procedural attributesthat contribute to outage/errors
- We need a more rigorous decomposition of Root Cause analysis for incidents that are classed as Procedural Errors.
- We need a grading procedure for individual procedures
- We need to create a predictive procedure reliability model to grade procedures
- We need to engage the developer and the provider in data collection
- A key point for evaluating procedures should be the impact of an error.

III. PARTICIPANTS

The working group participants consisted of the following industry professionals.

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