
eSafety HMI WG
Verification and criteria
2nd meeting 16/40/9

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Definition of the work

- desirability, implications and practicality of developing more specific pass/fail criteria for the ESoP and ways to assist designers and others to identify whether or not a specific system is in accordwith the ESoP

Question #1

- ESoP contains a set of general design rules, but it does not propose a way to evaluate if your product complies with these rules.
- Do we need an ESoP checklist that will result in an ESoP certification (possibly by levels)?

Is there a need for a checklist with pass/fail criteria for the ESoP?

Statement

- Manufacturers of in-car and nomadic devices will welcome such a certification possibility.

- I agree yes/no

YES

The minutes of the NDF WG meeting on November 25 contain a list of statements regarding the update of the ESoP with regards to the need of including measurement and objective criteria for testing the ND compliance to the ESoP, e.g.:

“...specific measuring and objective criteria for the test of the nomadic devices should be established. The way that the consumer tests are performed should be supported by the ESoP”

YES

- To identify obviously unsafe products
- Provide a common language and focus
- Highlight issues to producers

.

a lot of work has already been done with checklist (e.g. TRL-checklist) and similar tools and this ought to be acknowledged.

YES

1. it enables evaluators (technicians and researchers et al.) to act upon improper HMI solutions to be able to rule them out as dangerous or even illegal.
2. For practical use, the current ESoP is not very valuable since these criteria are missing.

YES

3. Some of our OEM customers ask us to comply to ESoP. For us it would be helpful to have a clearly described and commonly agreed method for ESoP compliance testing.
4. levels between yes or no might be helpful since some principles are very difficult to fulfill with nomadic devices

YES

What can be done with current state-of the art is:

- ❑ Quantitative mechanical testing for in-vehicle fitting
- ❑ Detailed checklist expanding on the principles and hence deconstructing many areas to simple verifiable statements
- ❑ Issue of acceptable visual demand/distraction is a policy issue not only a scientific one (and may remain unresolved).

NO

1. The general rules aim at protecting driver's performance, which is very context dependent (driver's state, capabilities, culture, driving situation, etc.)
2. Driver's performance is hard to measure. Even time measures, double tasks methodologies, etc. , do not provide safety predictions that are robust enough when applied to the diversity of driving situations.

NO

1. Contrary to general rules, criteria rely on measuring how the task is performed and therefore on existing HMI solutions.
2. A new interaction principle that would not satisfy the measurable criteria will be rejected even if it improves the satisfaction of the general rule.

No!

- If pass/fail criteria are introduced there is an obvious risk that it will hinder development of novel systems and thus reduce their potential benefit. For example, how can a pass/fail criteria be implemented based on the information presentation principle III (4.3.3.3)? -Information relevant to the driving task should be accurate and provided in a timely manner
- What is accurate? Pass/Fail?
- What is timely? Pass/Fail?

Roles & Members, responsibilities

- Contributors from inside the WG are primary and responsible ones
- There will be need for additional contributors, specifically manufacturer stakeholders.

Main topics (general)

- To be done / agreed at the next meeting
- ***Verification should be built up almost all other topics***
- Although the revision of the recommendation document should be done mainly with respect to Nomadic Devices, there is a chance to do a good revision of the whole document
 - Contemporary definitions are vague
 - From last revision lots of things has changed (concerning both R&D)
 - Several topics were being deleted during the creation process, since consortium did not agreed or the results from research works or experiences were ambiguous

Ideas...?

- Recommend general test procedure for HMI
- Include simulator tests
- Check latest research results (from 2005?)
- Identification, classification and of driver's errors caused by IVIS
- Situations to be avoided
- Set of bad examples if no clear criteria available
- ...

Resources

- Official documents
 - Former version of HMI recommendation
 - JAMA HMI recommendation
 - “USA HMI”(I do not know exact name)
- EU projects
- Articles
- Research works
- Testing facility guidelines?

Work plan

- To be specified
- 1st proposal
 - What should be the output and in which from it is expected
 - Finding topics
 - Find the global goal and assure that we comply with it
 - Open for
 - Set the schedule
 - Solve the problems
 - Find cooperators from “outside“
 - Delegate work

Research work

- Since there is theoretically a lot of research works on this topic some summary will be needed
- Problem will be perhaps in selection of “good”
- Lot's of them are incomplete (“...but much more experiments are necessary to prove this...”), leading to ambiguous results, sometimes they contradict one another
- Many EU project on this topic already contain
 - Interesting results
 - Recherche work on previously published results

Administration Web, FTP

- WEB
 - proposed structure:
 - About our group, about HMI WG
 - List of contributors (their responsibilities), “leaders”
 - Calendar of actions (meetings, call conferences), work plan
 - Call for participation
 - directory with files available for public
- FTP
 - 2 directories can be used by any member (r-w rights)
 - `_PUBLIC` are accessible via web browser (WEB in previous), any directory inside is browsable
 - `_SHARE` directory is supposed to be used for any member but not > accessible via web browser
 - all other directories (members surnames) are accessible for any member for reading but not write/delete only for particular owners

Secrecy, rights, unpublished docs

- The materials will be from numerous sources
- We need to agree on policy on
 - Selection
 - Handling of secrete/ non public materials
 - Handling of unpublished materials
 - Rating of trustworthiness, credibility
 - Entering of new members into the consortium

Thank you for your attention

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