

Introduction to



FET-Open project



Topics

Protocure – “Improving medical protocols by formal methods”

- Goals&Evaluation criteria
- Workplan



Goals&Evaluation criteria

- Goal:
 - **evaluation** of the feasibility of the use of formal methods for quality improvement of medical protocols
- How to do this?
 - [1] select 2 reference protocols, [2] formalise them, [3] verify interesting properties, and [4] determine how many errors be uncovered

Goals&Evaluation criteria (cont.)

- Evaluation criteria:
 - number of errors, expected and unexpected, uncovered with formal methods
 - and type of errors (e.g. serious to trivial, **NEW** requiring or not formal methods), according to the assessment of a panel of experts

How to deal with low rates of (unexpected) errors?

- number of “artificial” errors uncovered with formal methods

Workplan

- Workpackage list:

- WP1: select reference protocols and model them in Asbru
- WP2: define formal semantics of Asbru in KIV and identify desirable/required properties to verify
- WP3: translate Asbru models of reference protocols into KIV
- WP4: verify some properties on the Asbru-in-KIV reference protocols
- WP5: evaluate the verification results
- WP6: manage the workpackages

Workplan

- Workpackages&partners:

	Selec.&Model. (WP1)	Sem.&Prop. (WP2)	KIV formal. (WP3)	Verif. (WP4)	Eval. (WP5)	Manag. (WP6)	TOTAL partners	(applied)
A'dam (1)	0,5	0,5	1,5	2,5	1,5	1,5	8	5
Vienna (2)	2	1	1,5	0,5	1	0,5	6,5	4
Augsburg (3)	0	1	2,5	2,5	1	0,5	7,5	5,8
CBO (4)	0,5	0,5	0	0	1	0,5	2,5	2,5
Aberdeen (5)	0,5	0,5	0,5	0,5	0,5	0,5	3	2
TOTAL WPs	3,5	3,5	6	6	5	3,5	27,5	19,3

- Workpackages in time:

	month 1	month 2	month 3	month 4	month 5	month 6	month 7	month 8	month 9	month 10	month 11	month 12
WP1												
WP2												
WP3												
WP4												
WP5												
WP6												