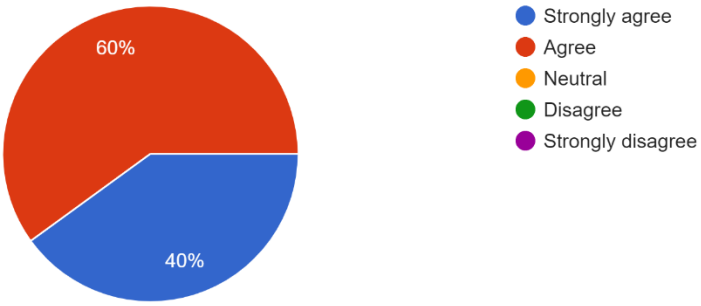
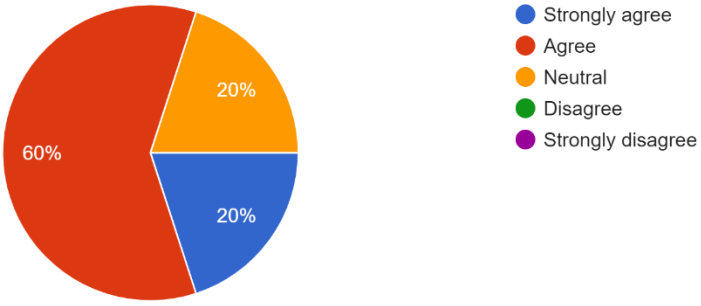
The requirements and threats expressed in the ontology are comprehensive.

5 responses



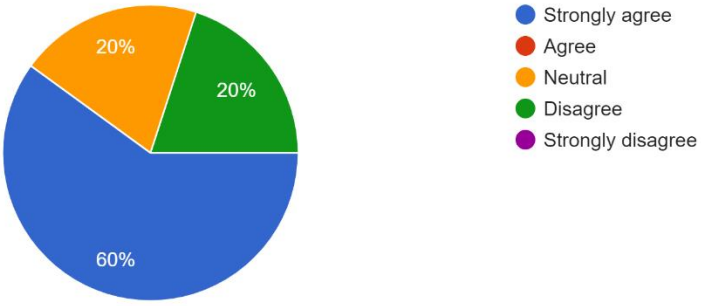
The requirements ontology covers the most important threats in software engineering linked to missing requirements.

5 responses



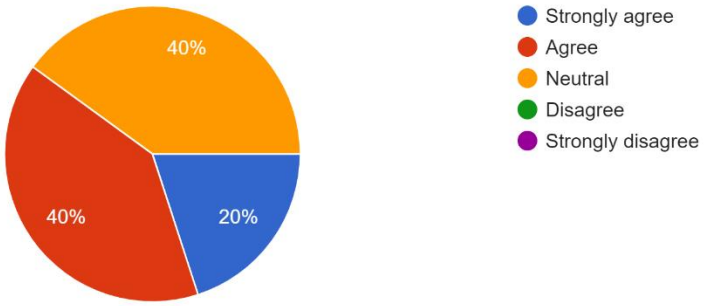
The overhead for adopting the requirements ontology is acceptable considering expected benefits.

5 responses



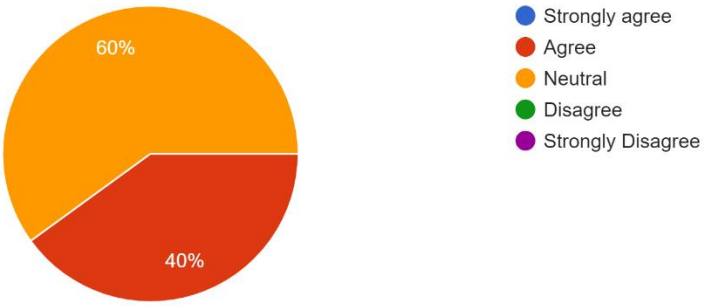
The requirements ontology is compatible with our software engineering processes.

5 responses



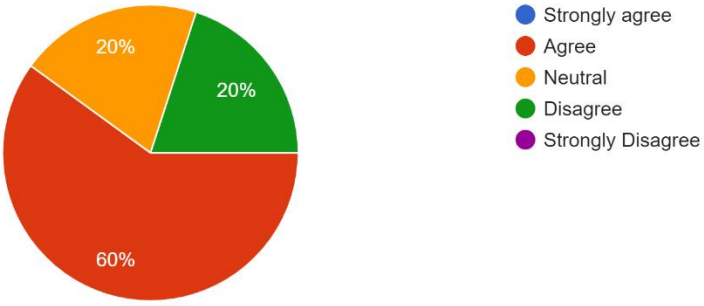
The requirements ontology would save significant amount of effort.

5 responses



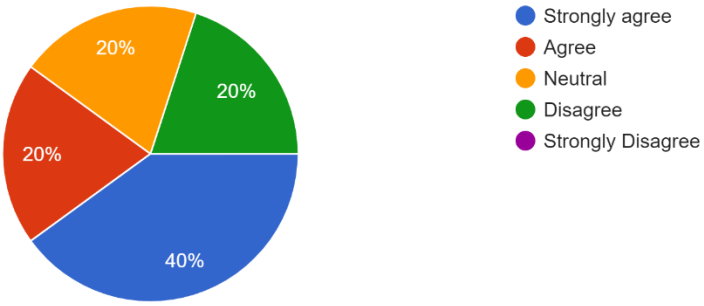
The requirements ontology presents relevant, but to me previously unknown, threats.

5 responses



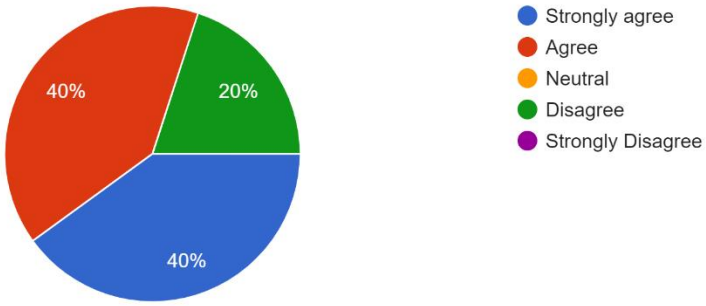
I am not able to anticipate all mentioned threats solely from looking at the requirements.

5 responses



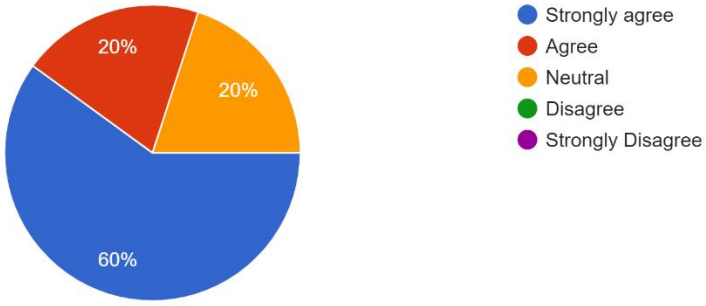
I feel motivated to learn more about requirements ontology.

5 responses



I feel motivated to apply requiremetns ontology in my work.

5 responses



How much effort could the ontology save and for which situations? 5 responses

It saves a lot of time and effort, in addition to that I learned about some requirements that are important in the design phase of project. As well as, I can use this ontology as a guideline tool before starting any project

A few person days on requirements analysis compared to when performed without an ontology. Many person days of rework on wrongly implemented multithreading solutions that overlooked threats. Many person months of damage control in case of large-scale, high-risk failure due to threats that were not accounted for.

It saves effort in thinking about requirements that may be missed.

I should learn more about the subject to answer this question

Early detection of risks and potential issues

Is there any part that is missing in the current ontology that is relevant for your work?

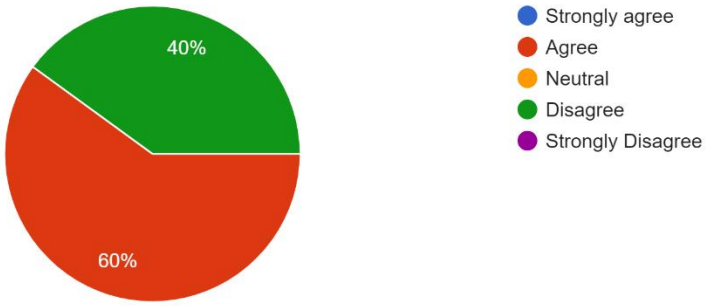
5 responses

No

I think the important part that can be added to the ontology is some instructions or explanations that show the importance of each existing terms or concepts and how they linked to each other .
I believe threats could be linked to strategies to prevent the threat or mitigate its severity. That would provide a practical guide what are possible ways to deal with identified threats (in the context of multithreading). A second addition could be that because the number of threats is overseeable, there might actually be a possibility to provide in reusable requirements (including requirements patterns or requirements artifacts) for this purpose.
The only possibility to find out is testing the proposed ontology

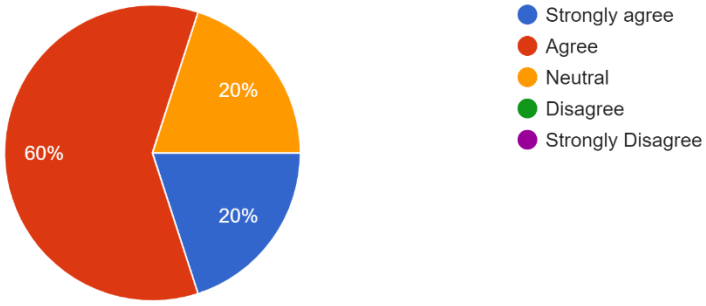
The framework identifies all threats we have with requirements of concurrent applications.

5 responses



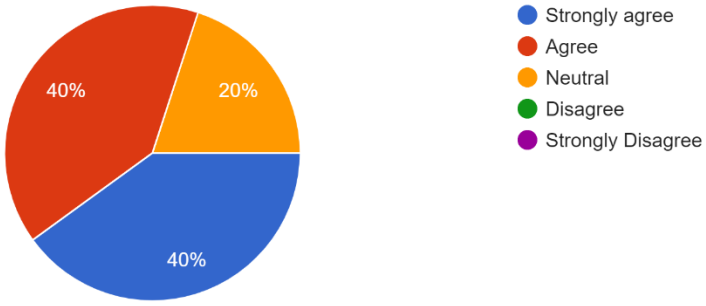
The framework would identify early most of the concurrency-related threats we had in our projects.

5 responses



The framework would identify early most of the concurrency-related threats we do not recognize properly during the requirements phase.

5 responses



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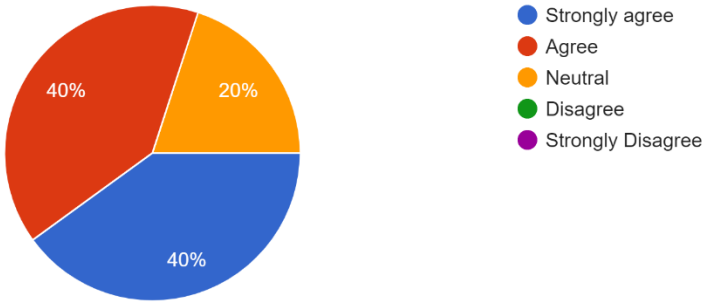
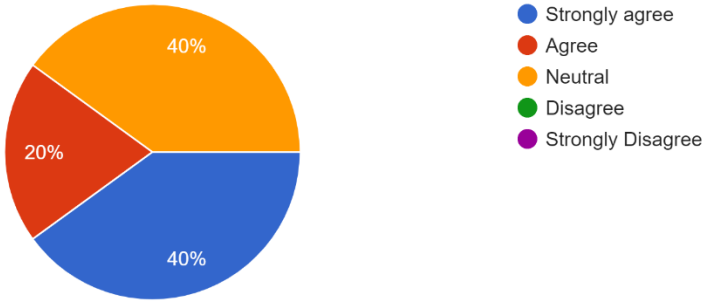
5 responses



It is more important to deal with concurrency issues on the architectural level instead of during development.

5 responses



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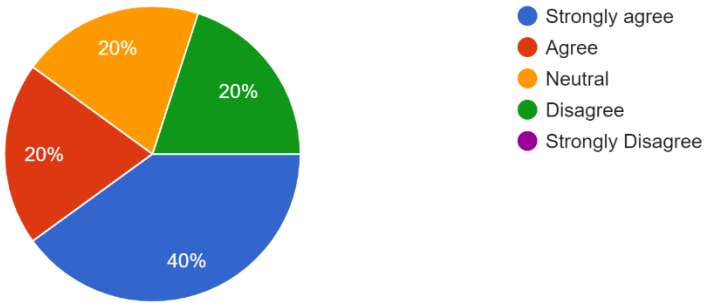
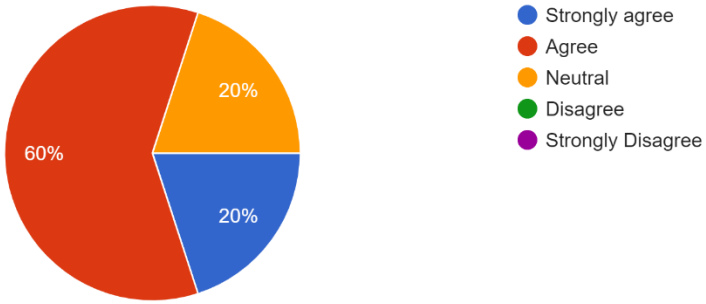
5 responses



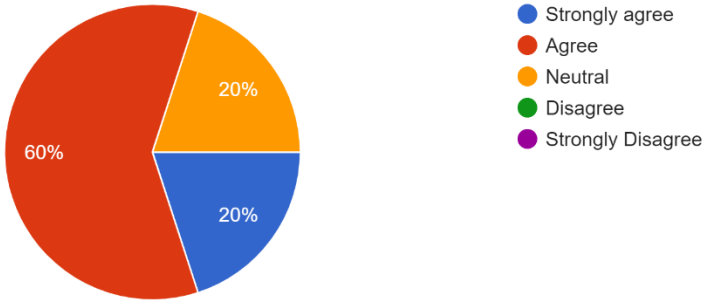
The framework would help to identify all threats related to missing requirements important to concurrency during design phase.

5 responses



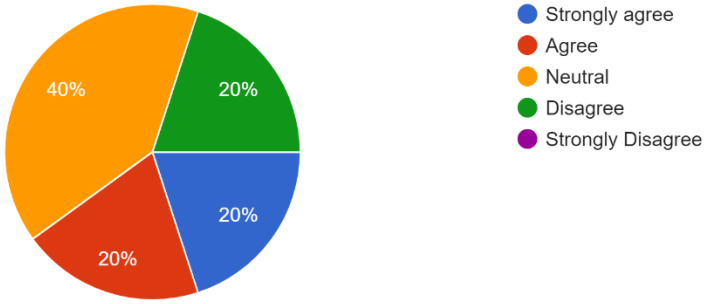
The framework would help to identify all threats related to missing requirements important to concurrency during development.

5 responses



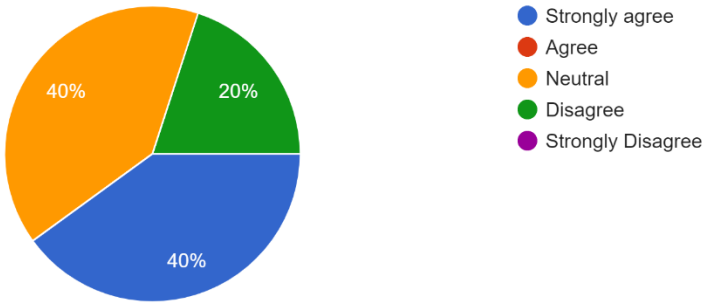
The framework would help to identify all threats related to missing requirements important to concurrency during testing.

5 responses



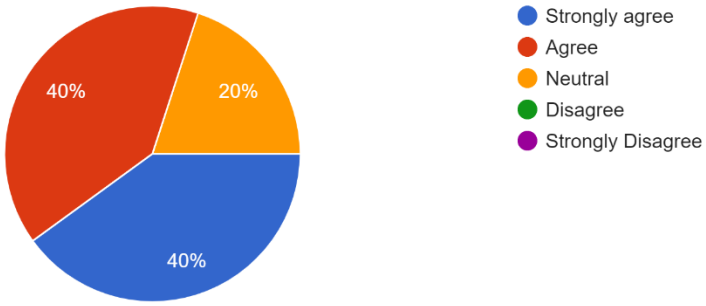
I feel motivated to apply this framework for development of concurrent software in my work.

5 responses



I feel motivated to apply this framework for testing of concurrent software in my work.

5 responses



Is there any threat relevant for concurrent software that is missing in the current framework?

5 responses

I do not have any additional threat and I think this framework is considered all important threats

It might be that there are other threats related to some of the other ISO 25010 quality characteristics (types of non-functional requirements) that were not addressed in the work. Focus was on reliability and performance, perhaps threats to aspects such as maturity or due to improper consideration of multithreading during modularization also exist.

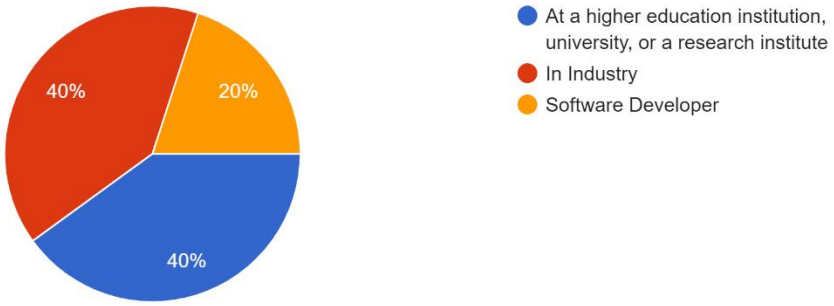
I am not an expert to answer this

No

The only way to find out is testing the current framework

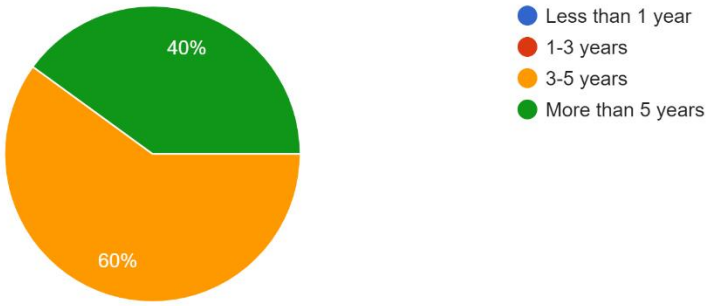
Where do you work?

5 responses



How many years of experience do you have in IT?

5 responses



Can you describe your experience (e.g., years of experience, domain, industry or research) with requirements engineering (if any), with focus on requirements traceability and traceability tools?

5 responses

I'm working as an IT manager for software company, and the work team used the agile method in the application and development for any project. I have an experience regarding the requirements of the systems as we do not use any traceability tool.

7 years cross-domain work on research, consulting and teaching, practical use of several requirements management tools and design of traceability. No practical research performed on traceability; predominantly operational.

I used tracing tools to analyze the timing of real-time systems for about 1 year (automotive industry). However, I had no given requirements because they were unknown (legacy software). We had to understand the system and make our own requirements.

Research ,we use adhoc system to trace our development

4 years of experience, primarily working of software development. My experience of requirements engineering is quite limited and traceability is one of the emerging areas that

our company is currently looking into to improve the life cycle of the software applications that we develop.

Do you have any final suggestions or criticism of the requirements ontology? 5 responses

I think the ontology covers the basic requirements in the field of development, but it is possible to add more additional requirements that contribute to the generalization of the ontology to be able to use it in wider fields.
Possibly the types of requirements (e.g., by documentation format like text/model) and related artifacts can be distinguished.
I did not understand the scope of the ontology. Does it apply to all real-time systems? If yes, should one distinguish between different types of real-time systems such as cars and airplanes because they may have different requirements. They may e.g. have to fulfill different safety levels that e.g. define whether deadlines are e.g. hard or soft. If the ontology does not differ between types of real-time systems, then it may provide information that is not required for the considered real-time system. Maybe one could specify in the beginning what kind of real-time system is being applied. After this specification, the appropriate ontology is adjusted so that the user is only provided with information that are relevant for their type of real-time system.
No
N/A

Can you describe your experience (e.g., years of experience, domain, industry or research) with multicores and multithreaded software (if any)?

5 responses

I think as manager I have to manage the team of any project since we start gathering the requirement until we deliver the final project for quality assurance so I need to have the skills for that kind of job. So, I have to link each part or stage to another.
No experience with multithreaded software; casual interest in multithreading in operating systems.
No
I have 2 years experience working on multi core software
Limited experience

Do you have any final suggestions or criticism of the framework (i.e., applied ontology on multithreading software)? 5 responses

No
I don’t have any extra suggestion
I recommend to do a kind of "usability test" to see if the ontology can be applied by a practitioner for doing requirements analysis, or if further guidelines are needed to help this person apply the framework.

N/A

How many employees does the institution where you work have?

5 responses