# 国内外研究现状。

## 1.1证据管理

审查单、专家、

## 1.2开发与审定方法

模型驱动 审定与研发的结合。

When comparing the evidence assessment techniques, the main difference that we have identified is that the importance of Checklists in practice is High while in literature is Low. A possible reason is that the checklists used in industry correspond to well-established, widely-accepted means for evidence assessment, thus research on new checklists might not be very important. When performing the SLR, we did not consider expert judgement as a technique for evidence assessment unless the result or rationale was recorded with or based on another technique. Since the results of the survey show that the importance of this technique in practice is High, and as mentioned above, we think that studying how experts assess safety evidence and thus system safety is a relevant area for future research. TABLE

TABLE II shows the frequency of use of different evidence structuring techniques, indicating the total number of responses (N) for each technique, their median, and their mode (in bold). Except Process models such as SPEM and Argumentation-based graphical notation such as the GSN, the median of the techniques as used in practice is Sometimes. Process models and Argumentation-based graphical notations are the only techniques whose mode is Never, whereas Textual templates and Structured text have the highest modes (Very Often). Textual templates is also the technique most frequently reported as being used Always, as well as the technique reported as used by the highest number of respondents (91.7%). Therefore, the results suggest a generalised and frequent use of Textual templates for structuring evidence. TABLE

表II显示了使用不同证据结构技术的频率，表示每种技术的响应总数(N)、它们的中值和模式(粗体)。除了流程模型(如SPEM)和基于参数的图形表示法(如GSN)之外，实践中使用的技术的中值有时是。流程模型和基于参数的图形符号是惟一一种模式永远不会出现的技术，而文本模板和结构化文本具有最高的模式(通常)。文本模板也是报告使用频率最高的技术，也是报告使用频率最高的技术(91.7%)。因此，研究结果表明，使用文本模板构建证据是普遍且频繁的。

[逐句翻译](javascript:;)

[相似例句](javascript:;)

Previous work has also acknowledged the use of textual templates documentations for structuring evidence [18], although it did not indicate its overall frequency. Another survey [20] reports the use of Argumentation-based graphical notations such as GSN and CAE for structuring claims, arguments, and evidence as most popular, but our results note differences in the practice. Basically, the fact that these graphical notations are the most popular ones for argumentation does mean that Argumentation-based graphical notations are widely used in practice. Although promising results in the use of models for structuring and managing evidence have been reported in [18], it seems that such approaches are not extensively used in industry yet. Nonetheless, this makes sense to use because the use of models for evidence structuring has been proposed recently. Industry might also have been using some evidence structuring techniques for decades, without considering to adopt other techniques or being aware of them. The scope of the related work (in terms of the countries from which the respondents are) might be a possible explanation for the differences with the results of our survey too. A

以前的工作也承认使用文本模板文档来构造证据[18]，尽管没有指出它的总体频率。另一项调查[20]报告说，使用基于论证的图形符号(如GSN和CAE)来组织索赔、论证和证据是最流行的，但我们的结果注意到了实践中的差异。基本上，这些图形符号是论证中最常用的符号，这意味着基于论证的图形符号在实践中得到了广泛的应用。尽管[18]中已经报道了在使用模型构建和管理证据方面的有希望的结果，但是这种方法似乎还没有在工业上得到广泛应用。尽管如此，这还是有意义的，因为最近有人提出了使用模型来构建证据。业界可能几十年来一直在使用一些证据结构技术，而没有考虑采用其他技术或意识到这些技术

The percentage and number (in brackets) of responses for ways to check the degree of evidence completeness is shown in Figure 7. Most of the respondents indicated that the degree of completeness for the evidence is checked manually (e.g., using paper-based checklists). A majority of the respondents (79%; 41 respondents) also noted that they provide, check or request details about how the change of a piece of evidence has affected other pieces of evidence. When asked about how they analyse the effect of the change of a piece of evidence on other pieces, 46% of the respondents noted manual checks according to some predefined process. Approximately the same percentage of respondents replied that the effect is checked manually although without following any predefined process. One respondent mentioned the use of modular software safety cases [32]. Figure 8 shows the frequency of the evidence change effect techniques.

用于检查证据完整性程度的方法的响应的百分比和数量(在括号中)如图7所示。大多数受访者表示，证据的完整性程度是手工检查的(例如，使用基于纸张的清单)。大部分受访者(79%;41名被访者)亦指出，他们提供、核对或要求提供有关更改一项证据如何影响其他证据的详情。当被问及他们如何分析一块证据的变化对其他证据的影响时，46%的受访者表示会根据一些预先设定的流程进行手工检查。大约相同比例的受访者回答说，效果是手动检查的，尽管没有遵循任何预定义的过程。一名受访者提到使用模块化软件安全案例[32]。图8显示了证据更改效果技术的频率。