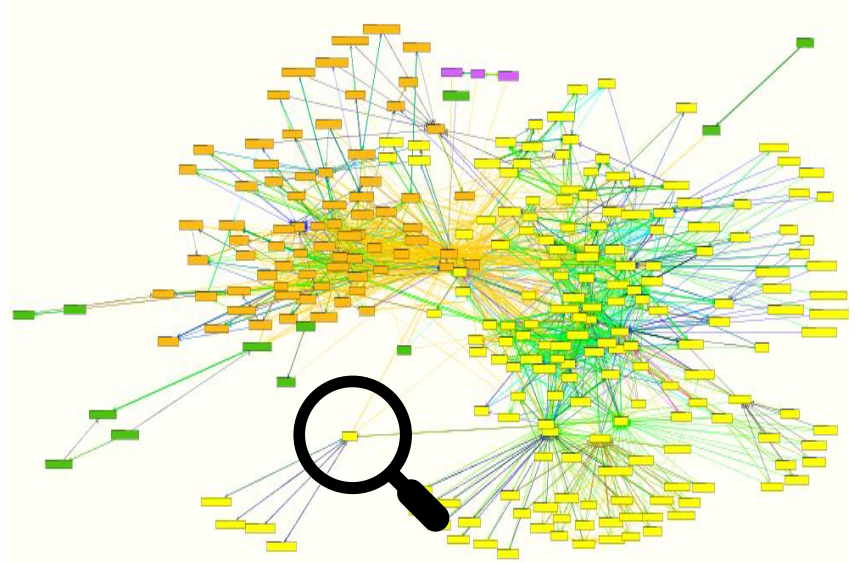**FFG**
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Software Competence Center Hagenberg GmbH

Programm: COMET - Competence Centers for Excellent Technologies

Funding: COMET-Zentrum (K1)

Projecttype: 2023-2026

EKNOWS AND SYSPARENCY

FROM RESEARCH TO PRACTICAL APPLICATION

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The eknows software platform developed at SCCH is the technical basis for the innovative and successful start-up Sysparency. A successful example of how research in software analysis can lead to new products and services.

Software documentation is a key element in the maintenance and further development of software. Missing and outdated documentation and a lack of knowledge about the

existing software present a major challenge. Complete automation is often the only way to efficiently document large software systems with several million

Automation is the only way to efficiently document software with several million lines of code

lines of programme code. However, the development of the necessary software tools such as documentation generators and tools for reverse engineering and code visualisation involves a great deal of effort.

This is where the eknows software platform developed at SCCH comes in. eknows supports the rapid development of analysis tools by reusing components for parsing source code, static and dynamic analysis components and knowledge

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Key Facts

- **eknows was developed in software research at SCCH as a platform for code analysis**
- **New analysis tools can be developed quickly and flexibly with eknows**
- **The start-up Sysparency now uses eknows as the basis for innovative analyses in the SAP environment**

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extraction. While the development of the platform was driven by domain-specific requirements from various research projects, an architecture that allows cross-technology analysis of software systems was envisaged from the outset. Currently, eknows analyses more than 16 programming languages and technology stacks.
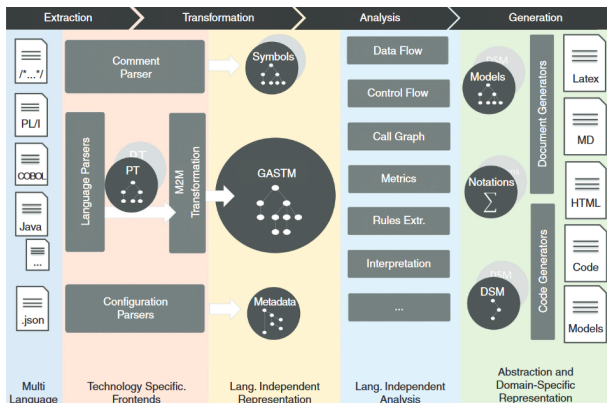
developed a complete SAP® technology connection for eknows, which enables end-to-end documentation of SAP® enhancements based on different perspectives (e.g. data, user interfaces, use cases, system communication, etc.).
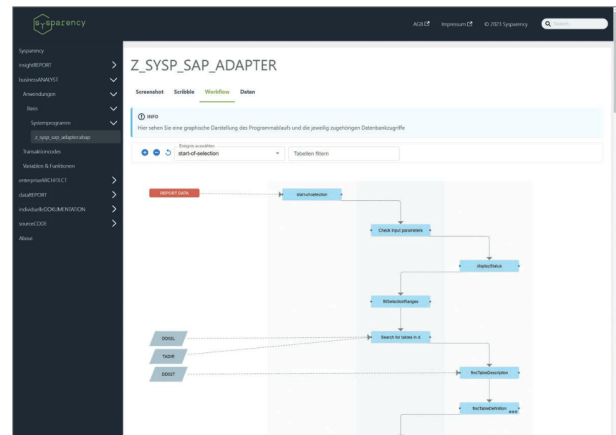

Fig. 1: Structure of the eknows analysis plattform

Fig. 2: Analysis of a user interaction in SAP

The openness and successful use of eknows in various application-oriented research projects sparked interest in commercialising the platform. To this end, the start-up Sysparency was founded in 2021. Since then, Sysparency has focussed very successfully on the automated documentation of customer-specific enhancements to SAP® systems. To this end, Sysparency

The development of eknows impressively illustrates how research in an application-orientated, industrial environment can lead to long-term and successful solutions through short feedback cycles and practical evaluations of research results.

Project Partners

- Software Competence Center Hagenberg
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- University of Applied Sciences in Upper Austria, Campus Hagenberg

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