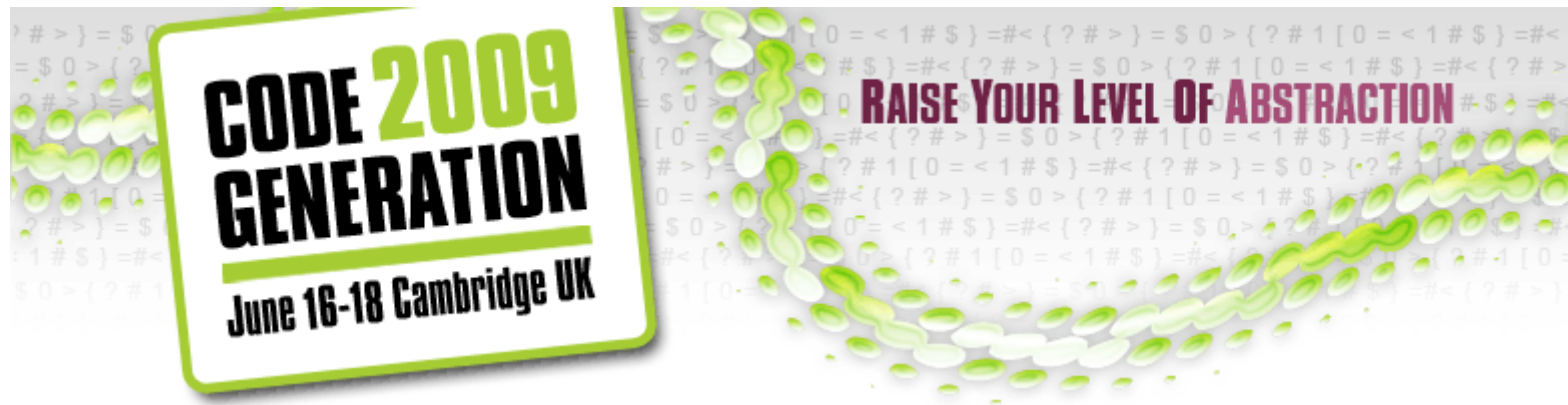


# Knowledge Industry Survival Strategy (KISS)

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# KISS Goals

- Reaching a strong consensus on fundamental values and principles for designing and using Domain Specific Languages
- Progress towards interoperability between tools

# KISS Values

<http://www.industrialized-software.org/core-values>

- We strive to [automate](#) software construction from domain models; therefore we consciously distinguish between building software factories and building software applications
- We work with [domain-specific assets](#), which can be anything from models, components, frameworks, generators, to languages and techniques
- We support the emergence of [supply chains](#) for software services, which implies domain-specific specialization and enables mass customization
- We see Open standards, [Open Source](#) test beds and reference implementations as driving the interoperability
- The methodologies we use conform with the values of the [Agile Manifesto](#)

# *Fundamental DSL Design Principles*

1. There **must** be an economic imperative for the development of a DSL
2. The DSL **must** be meaningful to users of the DSL
3. The DSL **must** be appropriate for the intended processing
4. The DSL **must** always be available when processing a model
5. The DSL **should** be cognitively efficient for the users of the DSL
6. The DSL **should** have multiple notations where necessary
7. DSLs **should** be kept small through modularization and integration
8. DSLs **should** offer mechanisms for modularizing and integrating models
9. The DSL **should** be supported by appropriate tooling for DSL users

# *DSL Design Guidelines*

1. DSL development **must** assemble sufficient expertise in:
  - Problem Domain
  - Solution Domain
  - Designing DSLs
  - Language Implementation Technologies
2. DSL development **must** anticipate evolution of the DSL
3. DSL modularization **should** take into account DSL user roles
4. DSL design and validation **should** use an iterative approach
5. DSL design **should** involve the construction of concrete examples
6. DSL notations **should** take into account established domain notations

# *What you can do to progress KISS*

1. **Sign-up** to register your support of the KISS initiative
2. Provide **examples** that illustrate the fundamental principles
3. Provide **case studies** that show the value of the DSL design guidelines
4. Provide **well-reasoned counter examples** if you believe a fundamental principle or design guideline is not applicable
5. Suggest **further principles and guidelines** together with relevant supporting evidence
6. Develop **DSL interoperability solutions** based on KISS principles and guidelines

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