

Developing Domain-Specific Languages for Ocean Modeling

EMLS'21 – Results - Breakout Group

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Criteria for a good language

- Understandability
- Efficiency
- Safety/control over values

Terminology

- Follow the domain terminology
- Introduce terminology supporting better software

Kind of DSL

- Use of an UI to configure a model
- Graphical DSL
- Textual DSL

Partitioning/Division of configuration

Collect approaches of

- encapsulation
- reuse

Use of Patterns

- Introduce SE patterns into scientific modeling
- Evaluate patterns for their suitability for scientific modelers/model developers
 - Example: Strategy pattern

Acceptance

- Look into marketing
- Technology Acceptance Model
 - Intend of use
 - Ease of use

How to organize maintenance?

- Identify potential maintainers
- Involve RSEs and technicians in the development

