

9. Individual Projects

Steps for the Development of a Generator

1. Task Definition
 - a. Task description
 - b. Examples for input (DSL)
 - c. Examples for generated output
 - d. Description of analysis and transformation tasks
2. Structuring Phase
 - a. Develop concrete syntax
 - b. Specify notation of tokens
 - c. Develop abstract syntax
 - d. Comprehensive tests
3. Semantic Analysis
 - a. Characterize erroneous inputs by test cases
 - b. Specify binding of names
 - c. Specify computation and checks of properties
 - d. Comprehensive tests
4. Transformation
 - a. Develop output patterns
 - b. Develop computations to create output
 - c. Comprehensive tests
5. Documentation and Presentation of the Generator

Individual Projects in Current Lecture

Topic

Student team

A

B

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10. Visual Languages Developed using DEViL

Two conference presentations are available in the lecture material:

Domain-Specific Visual Languages: Design and Implementation

Uwe Kastens, July 2007 CoRTA

Outline:

- 1. What are visual languages?**
- 2. Domain-specific visual languages**
- 3. Ingredients for Language design**
- 4. A Development Environment for Visual Languages**
- 5. Pattern-Based Specifications in DEViL**

Specifying Generic Depictions of Language Constructs for 3D Visual Languages

Jan Wolter, September 2013, VL / HCC

Outline:

- 1. 3D Visual Languages**
- 2. DEViL3D - Generator Framework for 3D Visual Languages**
- 3. Generic Depictions**