

## 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  
C  
D  
E  
F  
G  
H

## 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