

## 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

### Lecture Generating Software from Specifications WS 2013/14 / Slide 901

**Objectives:**

Plan the development of your generator

**In the lecture:**

Refer to corresponding sections of the lecture, and to the running example.

## Individual Projects in Current Lecture

Topic	Student team
A	
B	
C	
D	
E	
F	
G	
H	

### Lecture Generating Software from Specifications WS 2013/14 / Slide 902

**Objectives:**

Overview over Projects

**In the lecture:**

The topics are explained by the authors

## 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

## Lecture Generating Software from Specifications WS 2013/14 / Slide 951

#### Objectives:

An initial understanding of visual languages

#### In the lecture:

Visual languages, their design and implementation is explained. The slides for the presentations can be found in the lecture material: [the CoRTA presentation](#) and [the VL / HCC presentation](#).