Procedural Façade Textures for 3D City Models

Jürgen Bogdahn

HFT Stuttgart – University of Applied Sciences
Image Based Façade Textures

GeoViz ’09, Hamburg

Jürgen Bogdahn

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Façade Textures focusing on Photo-Realism

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Flexible Content
Flexible and Efficient Façade Textures

Example of an XML file describing a synthetic texture.

```xml
<?xml version="1.0" encoding="UTF-8" ?>
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</GeoViz '09, Hamburg Jürgen Bogdahn>
```
• Layer concept

• Rules: z-order, priority, etc.
Information can come from rather complex models on server side

Models on client can have less geometrical complexity but contain thematic information about specific parts of the building

- Add pulses with thematic information
- Define appropriate z-level within façade texture
Use of the programmable rendering pipeline in order to rebuild the textures directly on the graphics hardware.

Reconstruction of the texture by the client application. Rendering is done with complete texture but transmission process can benefit from tile based approach.

Reconstruction on server side if the output format, respectively the client does not support shader information.
MoNa3D - Project

• **Landmark based Navigation** for Pedestrians
• **Intuitive** navigation instructions
• **Efficient and flexible Texturing** of the 3D model
• Funded by the German Ministry for Education and Research
Examples

Test Data by TeleAtlas

Test Scenario Stuttgart
Prof. Dr. Volker Coors
volker.coors@hft-stuttgart.de

Dipl.-Ing.(FH) Jürgen Bogdahn
juergen.bogdahn@hft-stuttgart.de

mona3d.hft-stuttgart.de