MDL & SUBSTANCE IN AUTOMOTIVE

JEROME DEREL, CHIEF PRODUCT OFFICER, ALLEGORITHMIC
NICOLAS PAULHAC, PRODUCT MANAGER, ALLEGORITHMIC

MONDAY, MAR 26, 10:30 AM - 10:55 AM - HILTON SANTA CLARA
WE ARE

Created in 2003 in Clermont-Ferrand

110 employees

HQ in Clermont Ferrand

Offices in Paris & Lyon

Offices in United States (LA, Cleveland)

Offices in Asia (Singapore, Seoul)
WE ARE

Video Game
VFX/Animation
Architecture
Industrial Design
SCAN

DEVICES
- X-RITE TAC-7
- VIZOO X-TEX
- CUSTOM SCAN

SCAN POST PROCESSING
- FILTERS
- TEMPLATES
SUBSTANCE MATERIALS LIBRARY

Ever-growing content library with more than 1200 materials
Professional quality PBR materials
Tweakable materials allowing an infinite range of variations
All materials can be used directly in most renderers or game engines
Access to materials nodal graph (.SBS)
PHOTOREALISTIC MATERIALS & CREATIVE FREEDOM
PHOTOREALISTIC MATERIALS

MDL
(COMPLEX MATERIAL DEFINITION)

CREATIVE FREEDOM

PROCEDURAL LIMIT-PARAMETERS-INTERFACE
MATERIAL SPECIFICATION

DIAMOND STITCHED LEATHER

CONSTRUCTION

Stitched Pattern

Sewn stitches

PROCEDURAL

SCANNED

Scanned skin grain
PARAMETERS

PATTERN
- shape
- size
- lines

STITCHES
- size
- spacing
- orientation

THREAD
- color
- size
- turns

LEATHER FINISH
- Color
- Roughness
- Metallic
PHOTOREALISTIC MATERIALS

ACCURACY
JOB DONE IN PHYSICS

CREATIVE FREEDOM

CUSTOMIZATION
HYBRIDATION
COMPONENTS ASSEMBLY
MODELING VS. TEXTURING
MODELING VS. TEXTURING & MATERIAL DRIVEN DESIGN
MATERIAL SPECIFICATION

ALUMINIUM RIM

CREATIVE PROCESS

Form variations

Design intention

CMF variations

Technical elements
CONSTRUCTION

FINISHES

SHAPE

Components:
- Bolts
- Spokes
- Badge
- Valve
MODELING VS. TEXTURING

RIGHT LEVEL OF DETAIL
WITH MINIMUM MODELING
REDUCE DESIGN ITERATIONS
OPTIMIZE PROTOTYPING

MATERIAL DRIVEN DESIGN

TWEAK FORMS & MATERIALS
TOGETHER
EXPLORE & GENERATE VARIATIONS
SUBSTANCE SOURCE AUTOMOTIVE SNEAK PEEK

24 PBR Materials

AVAILABLE 03-27
BMW VR EXPERIENCE AND DESIGN VISUALIZATION WITH SUBSTANCE

Pierre Maheut, Product Manager, Allegorithmic
Gareth Rogers & MaxBostock, BMW

S8723 Talk

Wednesday, Mar 28, 3:00 PM - 3:50 PM – Room 230A