Thief's Environment Pipeline using Autodesk 3dsMax 2013

Jean-Normand Bucci

Who am I?

Jean-Normand Bucci, Technical Director on LABS, R&D dept.

    -Providing best tools and pipeline to artists

    -Debugging and profiling to make sure we have the desired performance

-Eidos-Montréal was founded in 2007

    -Deus Ex: Human Revolution

    -Thief

    -Deux Ex Universe

    -R&D dept called Labs

LABS
VIDEOGAMES INNOVATION

Table of Content

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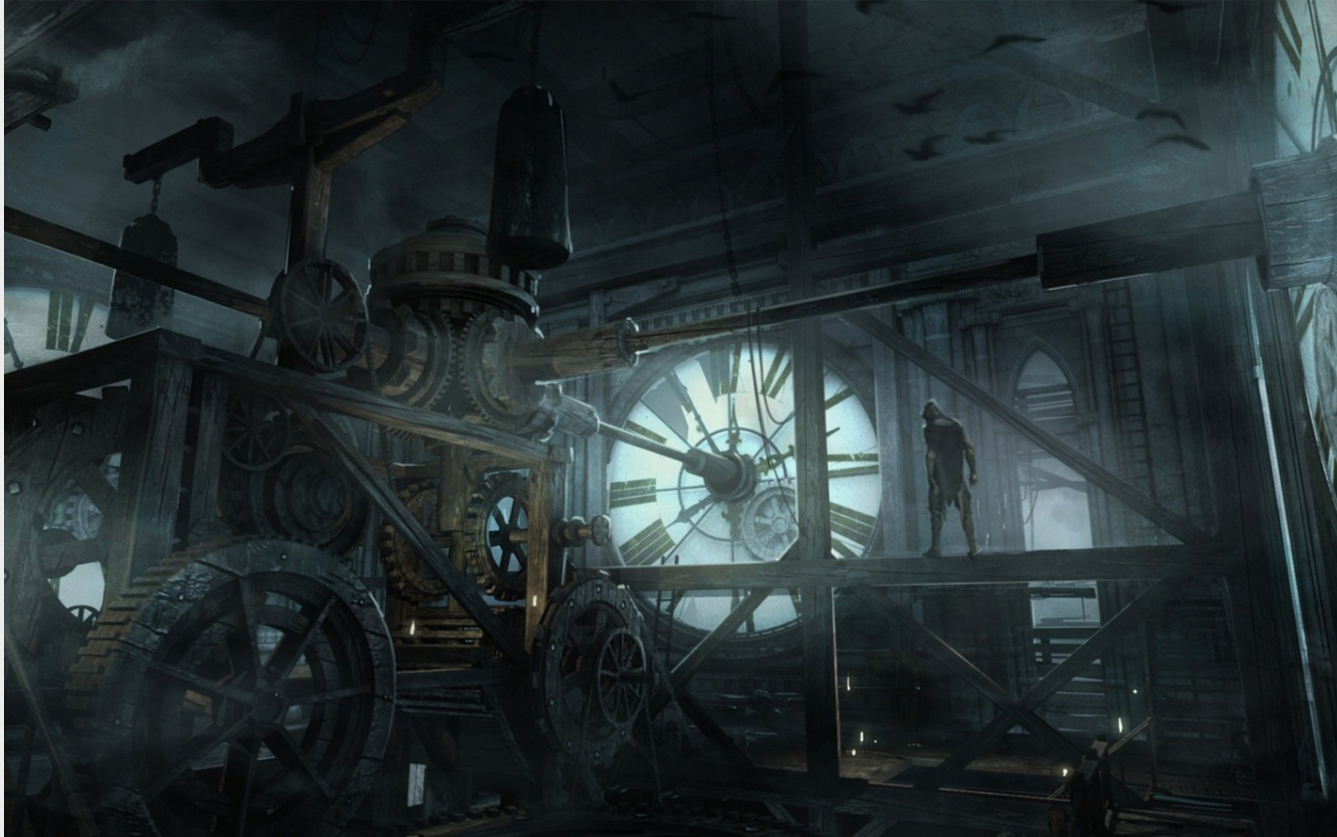- **Thief – Launch Trailer**
- **Q&A**

Thief – 101 Trailer

Creating the World of Thief

-Garrett, the Master Thief

-First-person, stealth/action game

-Fantasy of being a thief

-To create this world, we used Autodesk products for the flexibility they offer

Art Direction

Art Direction VS Tools

-Support high quality art content and diversity

-Camera in first-person: It must look good when near!

-Very moody

-Victorian/Medieval industrial style

-Vertical navigation, puzzle, smart objects

Quality

Pick two

Quantity   Diversity

Technical Direction: Current VS Next gen

-Unreal Engine 3 for convenient GUI, tools, profiling and occlusion system

-Motion Builder for animation

-Autodesk's Gameware: HumanIK, Kynapse, Scaleform
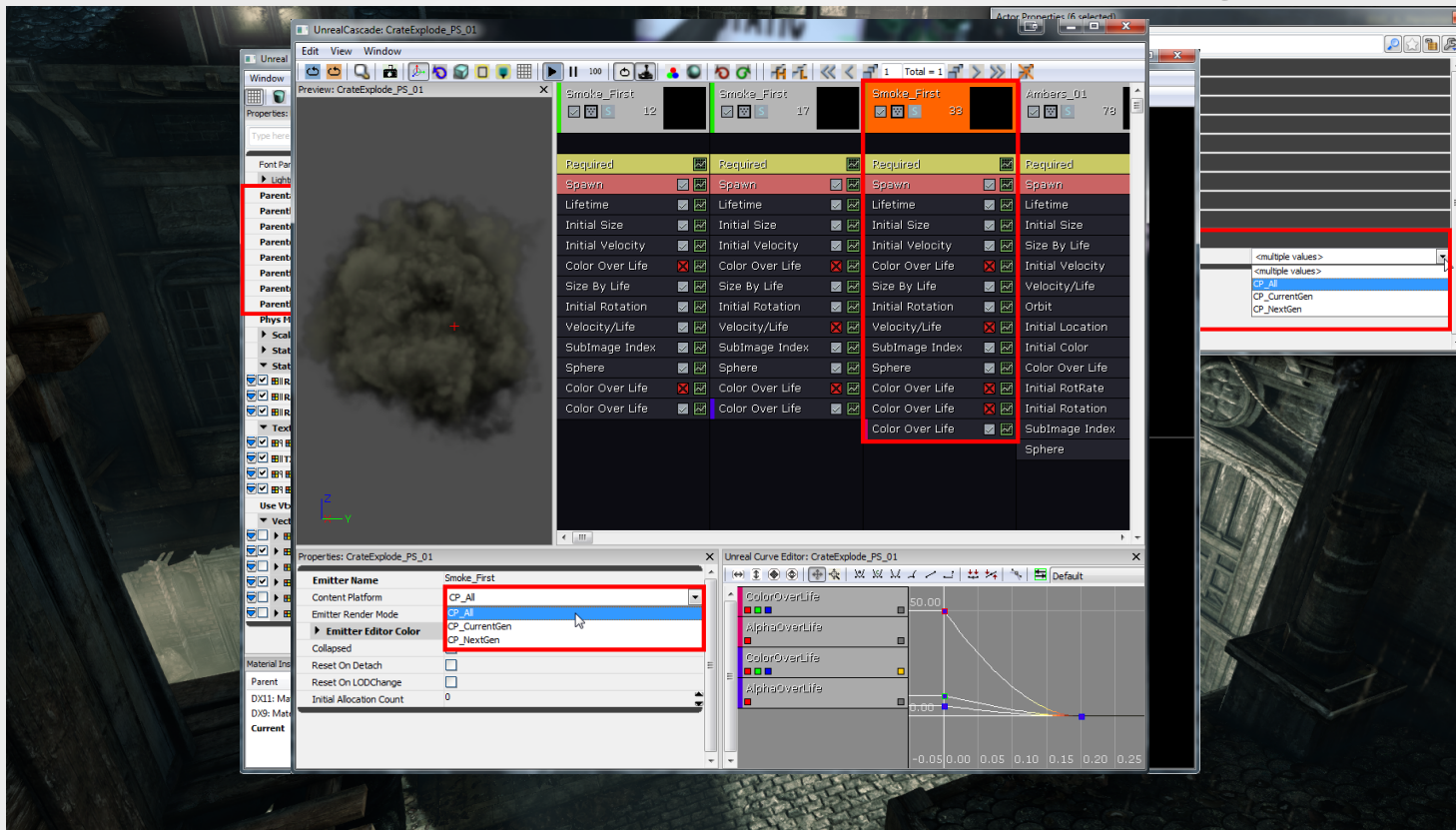
-3dsMax for content creation
- -Modular approach to build our environment
- -Multiple LODs for good performances
- -Atlas system to cut draw calls
- -High texel ratio (1024*1024 for 2 meters)
- -Lots of tools to manage conventions and technicalities
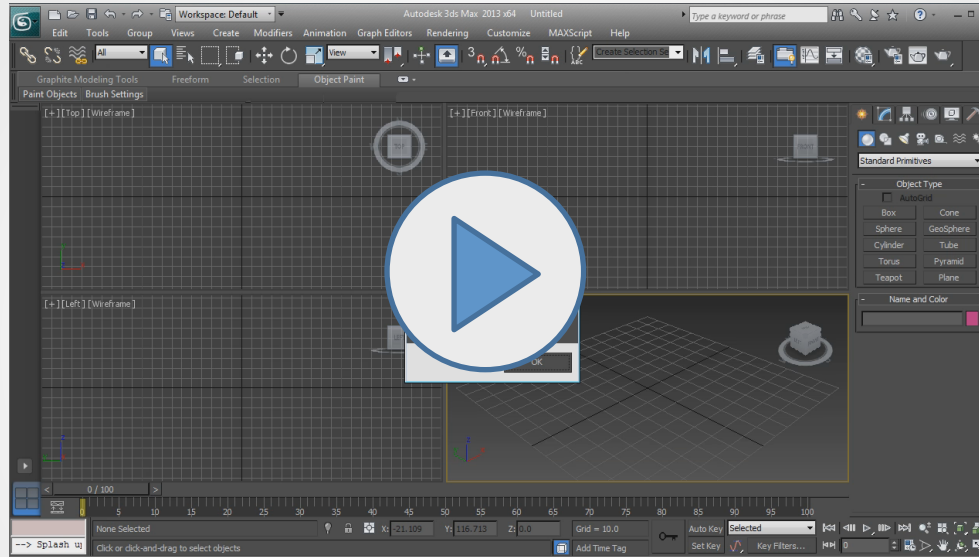
Autodesk®   UNREAL
ENGINE

Technical Direction: Current VS Next gen

Production Tools

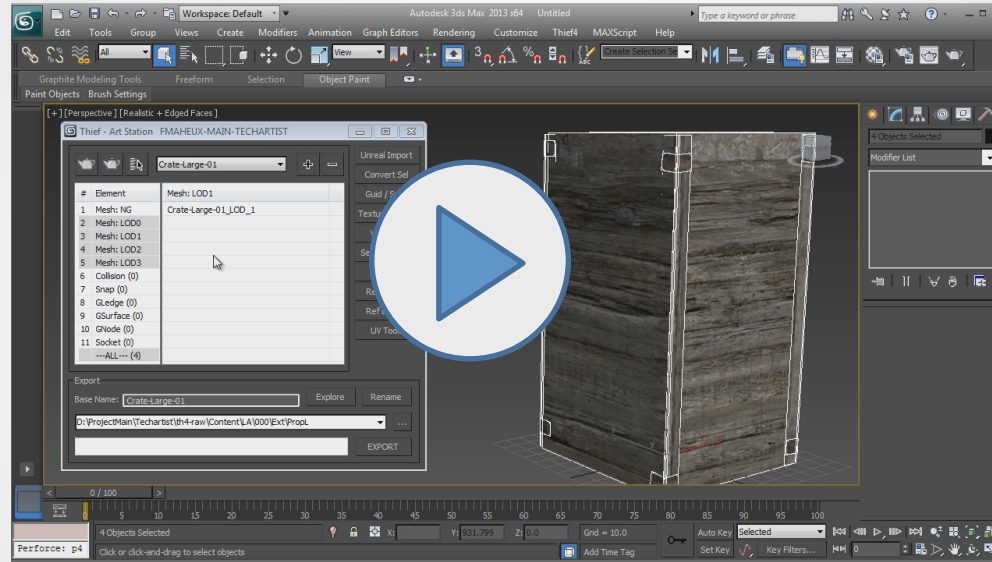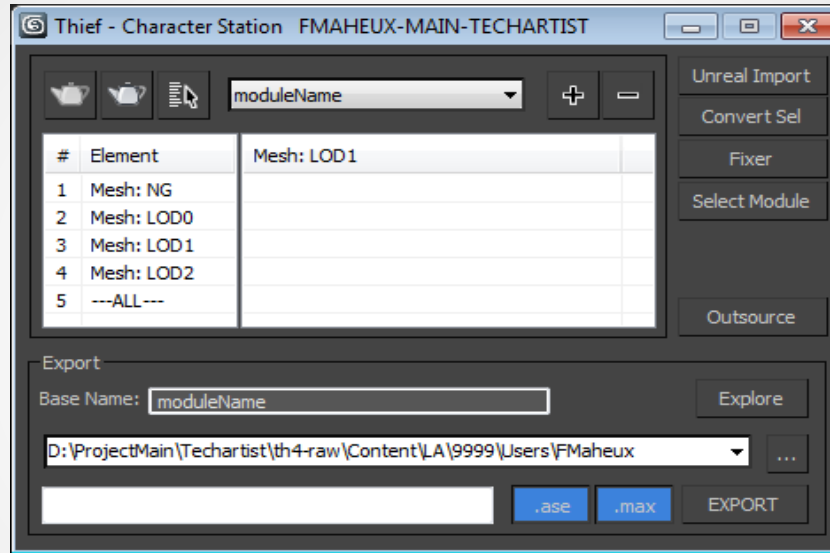# Production Tools – Drag-and-drop install

-Install is required only once
-Units, grid, renderer, gamma, etc… will be set up, the same way, for everyone!
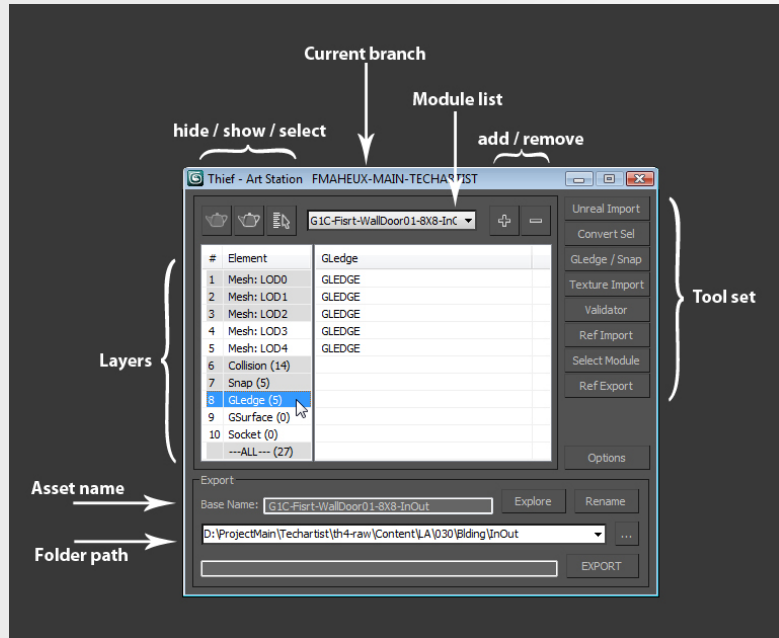
Production Tools – Thief's Art Station

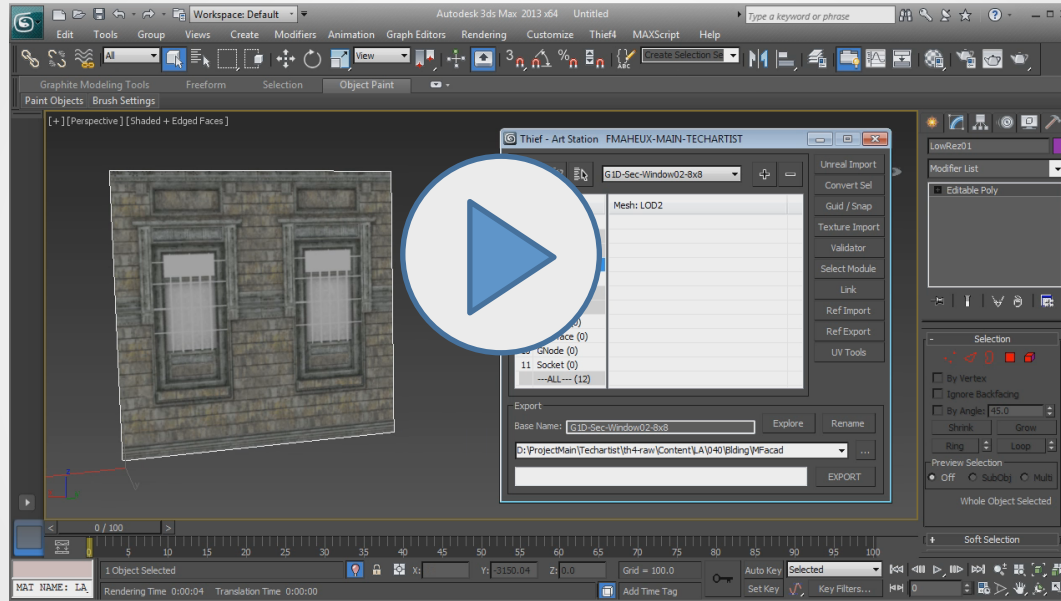# Production Tools – Thief's Art Station

-Morphs into Thief's Character Station
-Character Station uses different conventions and tools to clean outsource files

Production Tools – Thief's Art Station recap

-Our main tool hub, where all data comes in and out

-Using the clipboard as a bridge between 3dsMax and Unreal

-The artist can validate his work

-Able to quickly create Thief's guidances and snaps

-Import/export multiple objects at the same time

-Source Control software integration (sync, checkout)

-Takes care of naming conventions and technicalities

-**Result: consistent raw data for easy batch processing and refactoring!**

Production Tools – Other Tools

Production Tools – recap

-**Simple install tool** for consistent work environment

-**Art Station** to insure consistent raw data

-**Atlas Tool** for creating our lowest LOD

-**Fake Mesh Tool** for low-rez background objects

-**Flow Painting Tool** to control our water shader

-**Snaps** to avoid gaps or flickering

-**Custom UV Tools** to help artists with unwrapping

-**Tessellation Exclusion** using vertex colors

-**Baking destruction** using 3dsmax third party plugins

-and so much more...!

3D Features

The Current Level Is Not
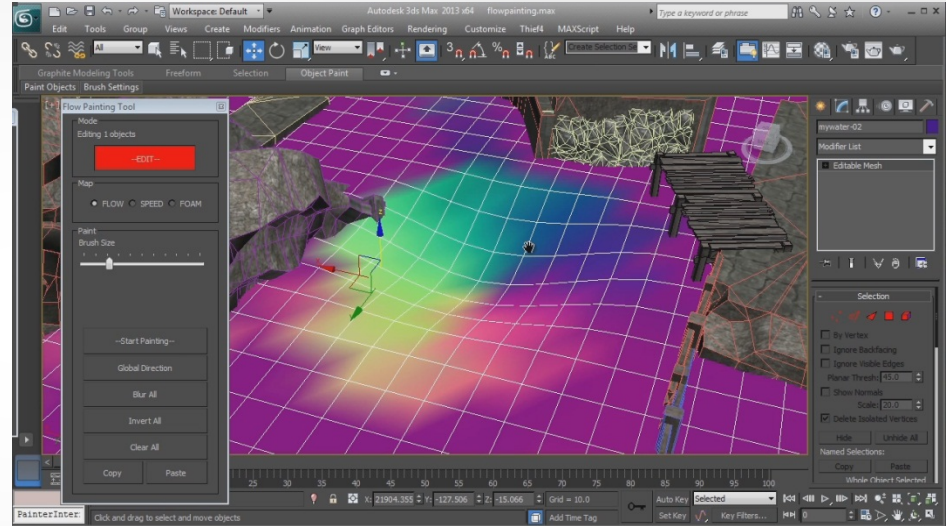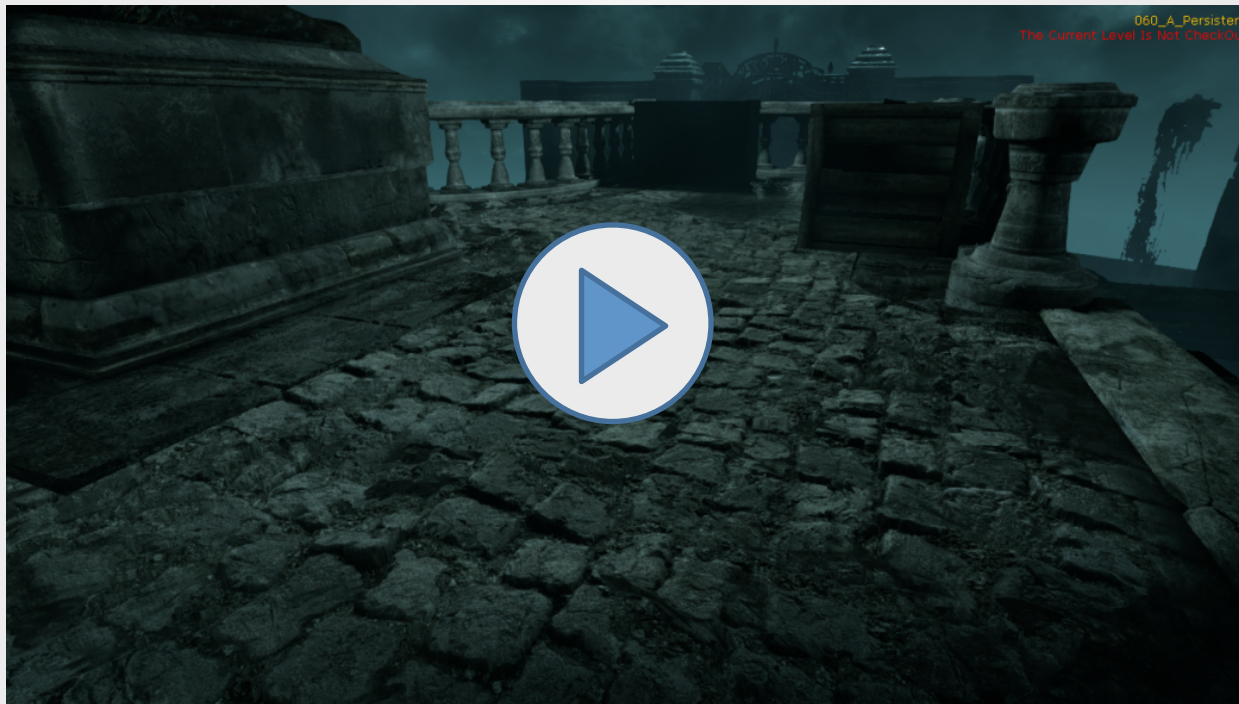
3D Features

3D Features - recap

-3 types of reflection working together (Localized cubemap, IBR, SSR)

-Light streaks

-Parallax Occlusion Mapping (POM)

-Flow mapping for water

-Rain FX

-Fire propagation

-Dynamic 3D clouds

-Dynamic lit particles

-Contact Hardening Shadow

-Phong Tessellation

Lessons Learned

-**The sooner the better you push stuff in.**

-**Think about educating your staff on the next-gen new tricks**

-**High-rez sculpting tool is no longer for character art.**

-**Bigger the better your content is.**

-**Think about you… ☺**

Thank You!

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Thief – Launch Trailer

Q & A

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