

BECOMING AN ARTIST IN GAMEDEV

EXPLORE THE FUTURE
AND US BUILD OUR UNIVERSE



OPEN HOUSE DAY
Saturday, October 22nd

NATIQ
AGHAYEV



Available Roles

- CONCEPT ARTIST
- 3D ARTIST
- CHARACTER ARTIST
- ANIMATOR
- TECHNICAL ARTIST
- UI/UX ARTIST
- VFX ARTIST



CONCEPT ARTIST



■ Concept Artist

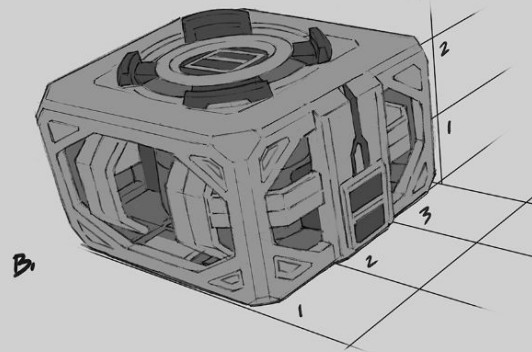
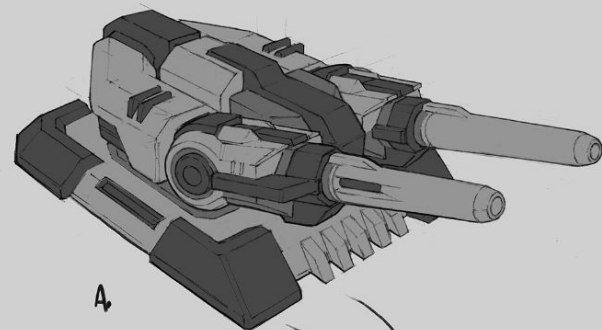
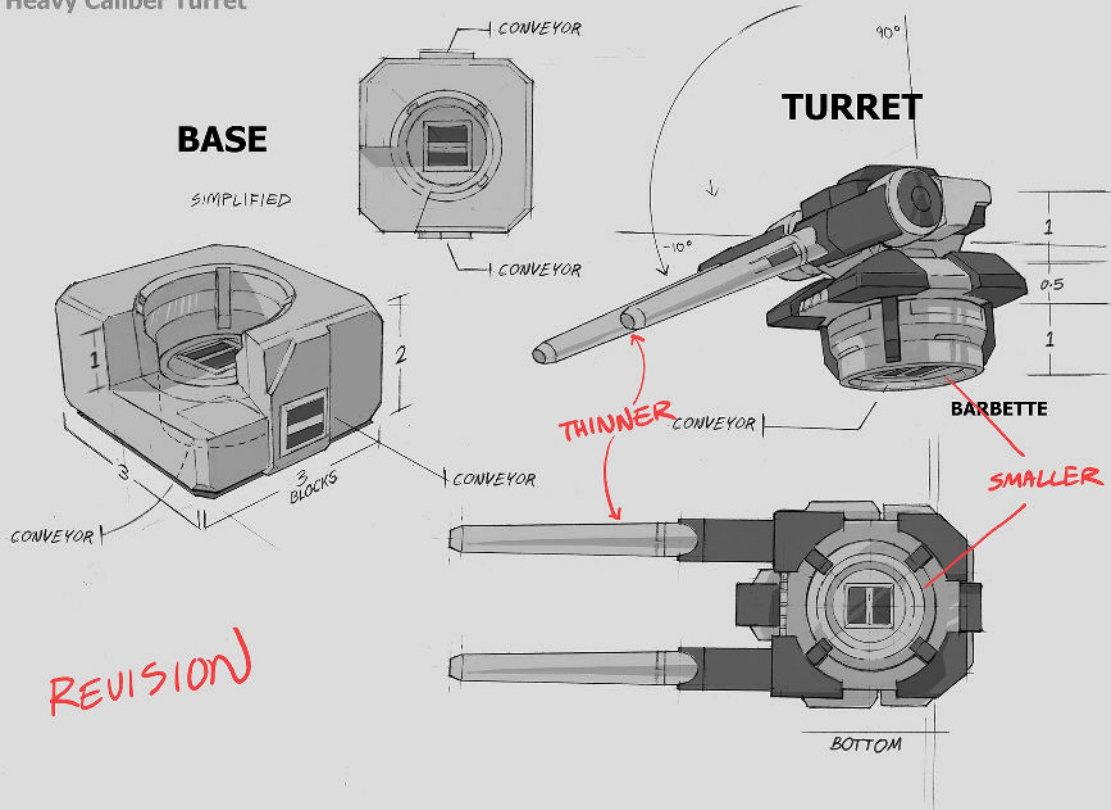


■ Concept Artist



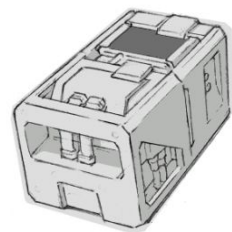
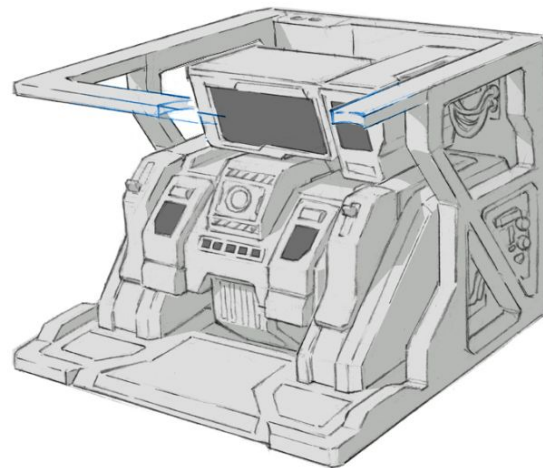
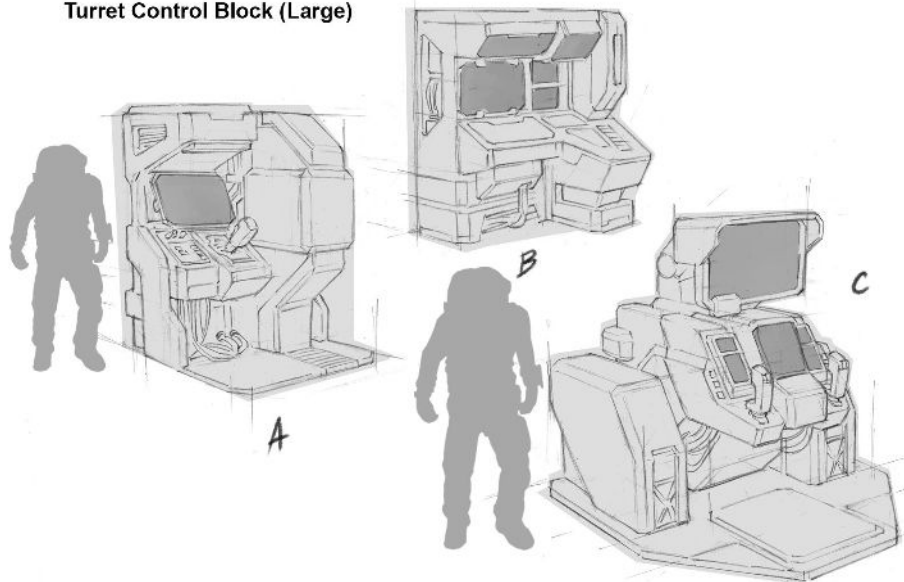
Concept Artist

Heavy Caliber Turret

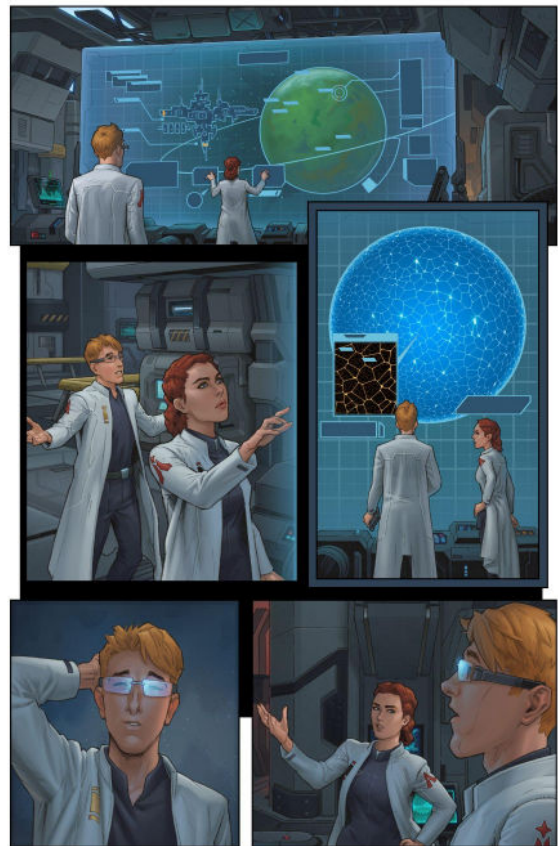
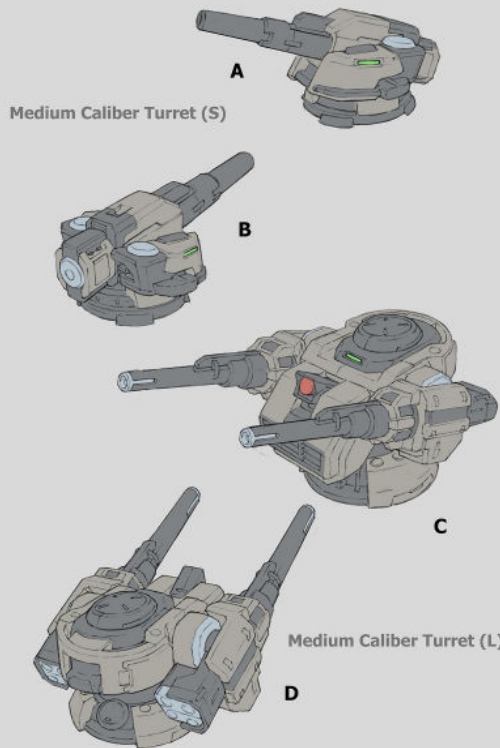


Concept Artist

Turret Control Block (Large)



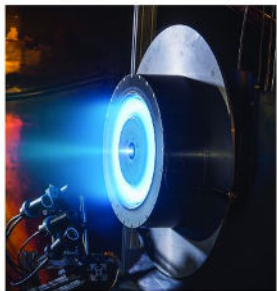
Concept Artist



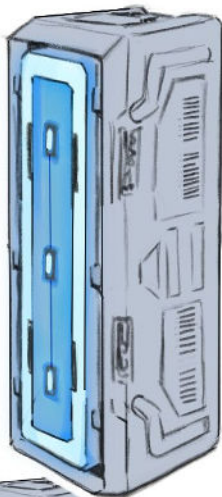
Concept Artist



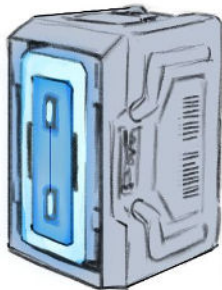
ION THRUSTER



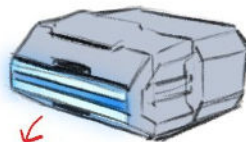
2 COMBINED VERTICALLY



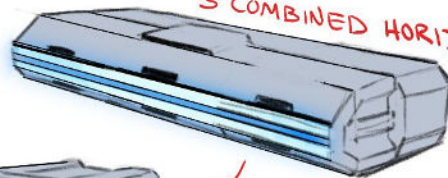
SINGLE LARGE



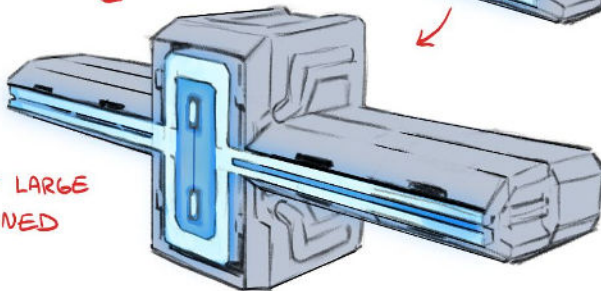
SINGLE SMALL
(LARGE GRID)



3 COMBINED HORIZONTALLY



SMALL + LARGE
COMBINED



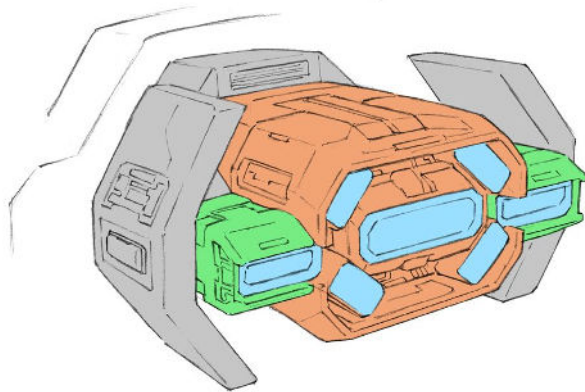
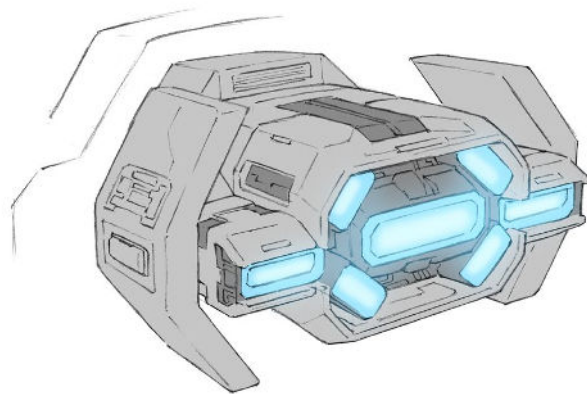
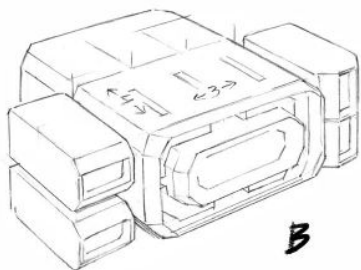
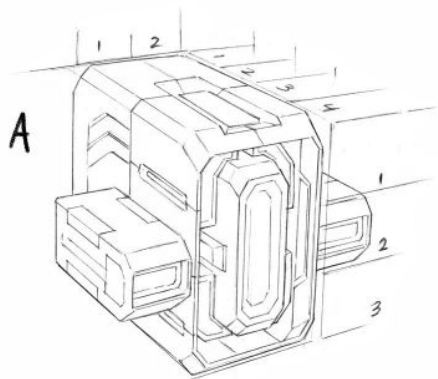
A

B

C



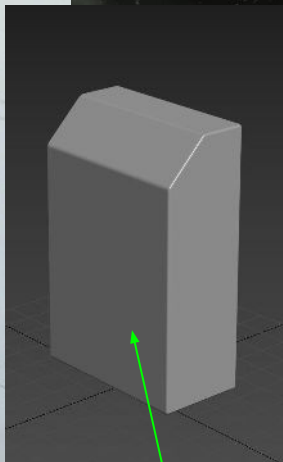
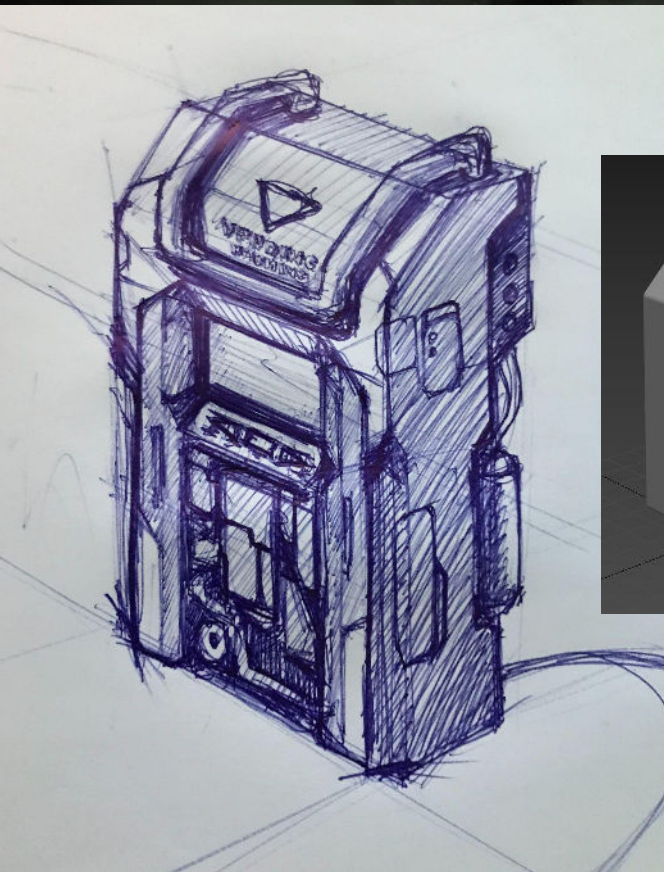
Concept Artist



■ LARGE THRUSTER
■ SMALL THRUSTER



Concept Artist



Doing quick paint-overs on top of the draft 3D primitives screen-captured in 3d viewport is very often one of the most effective ways to come up with lots of cool visual ideas

Concept Artist



Paint-over

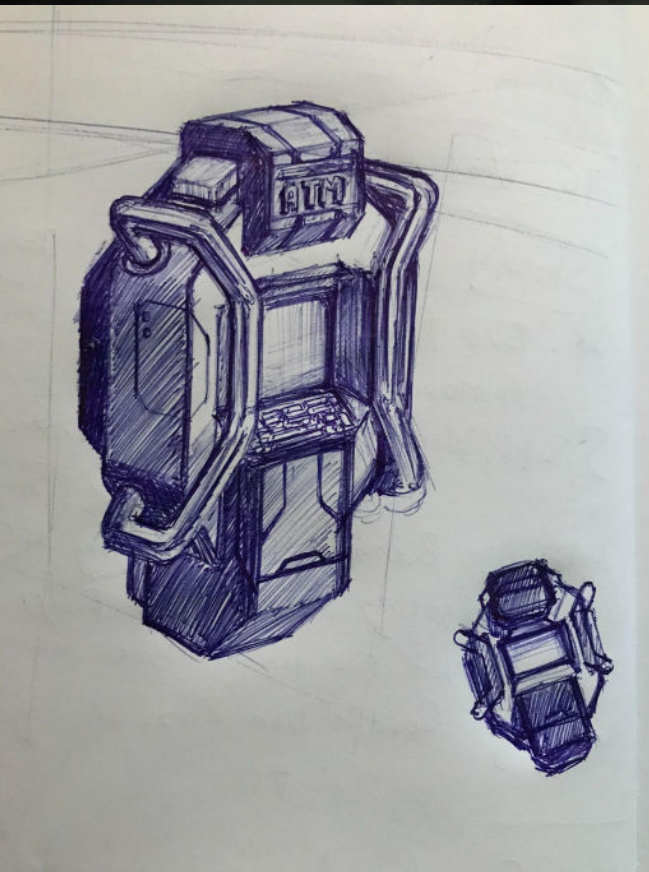


Final model

Concept Artist



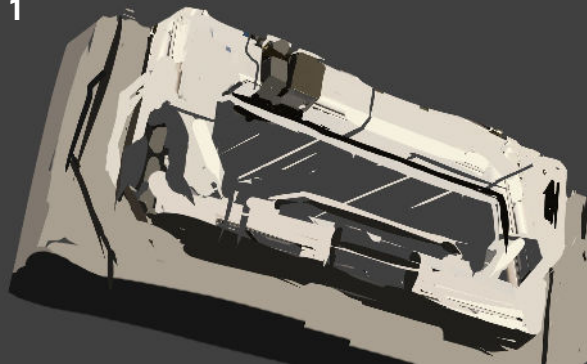
Concept Artist



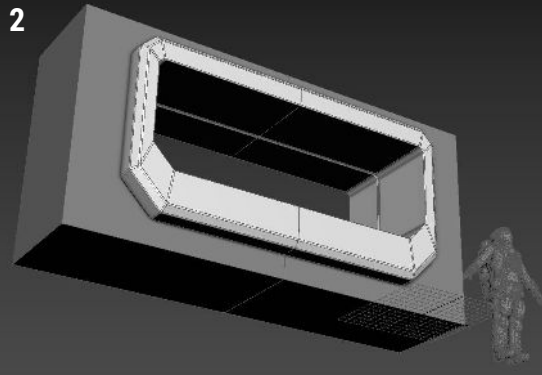
Concept Artist

Sketching Window Block from start to finish:

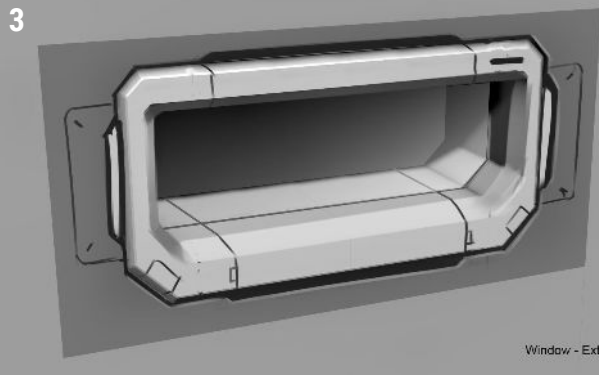
1



2

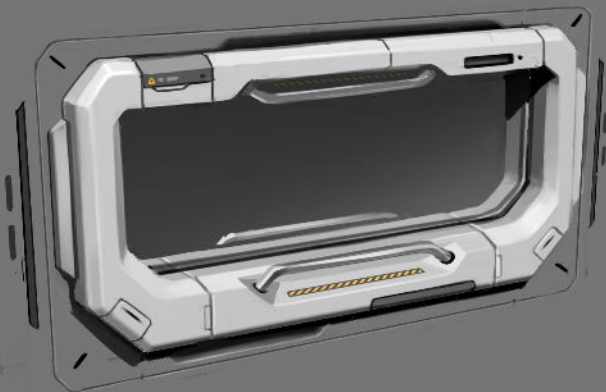


3



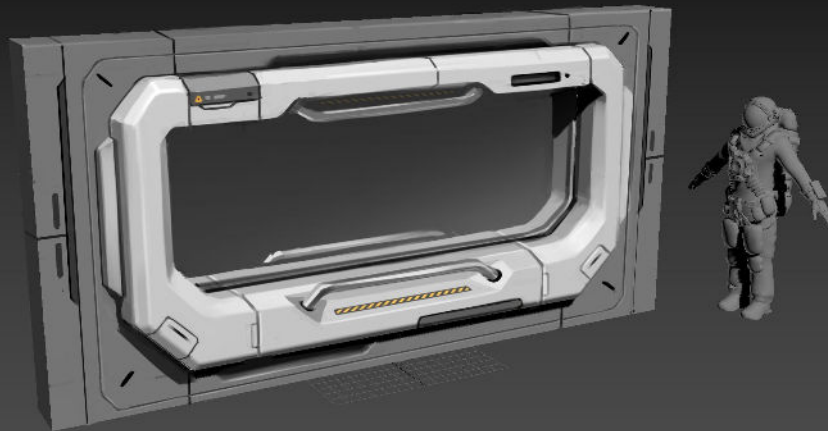
Window - Exterior View

4



Window - Interior View

5



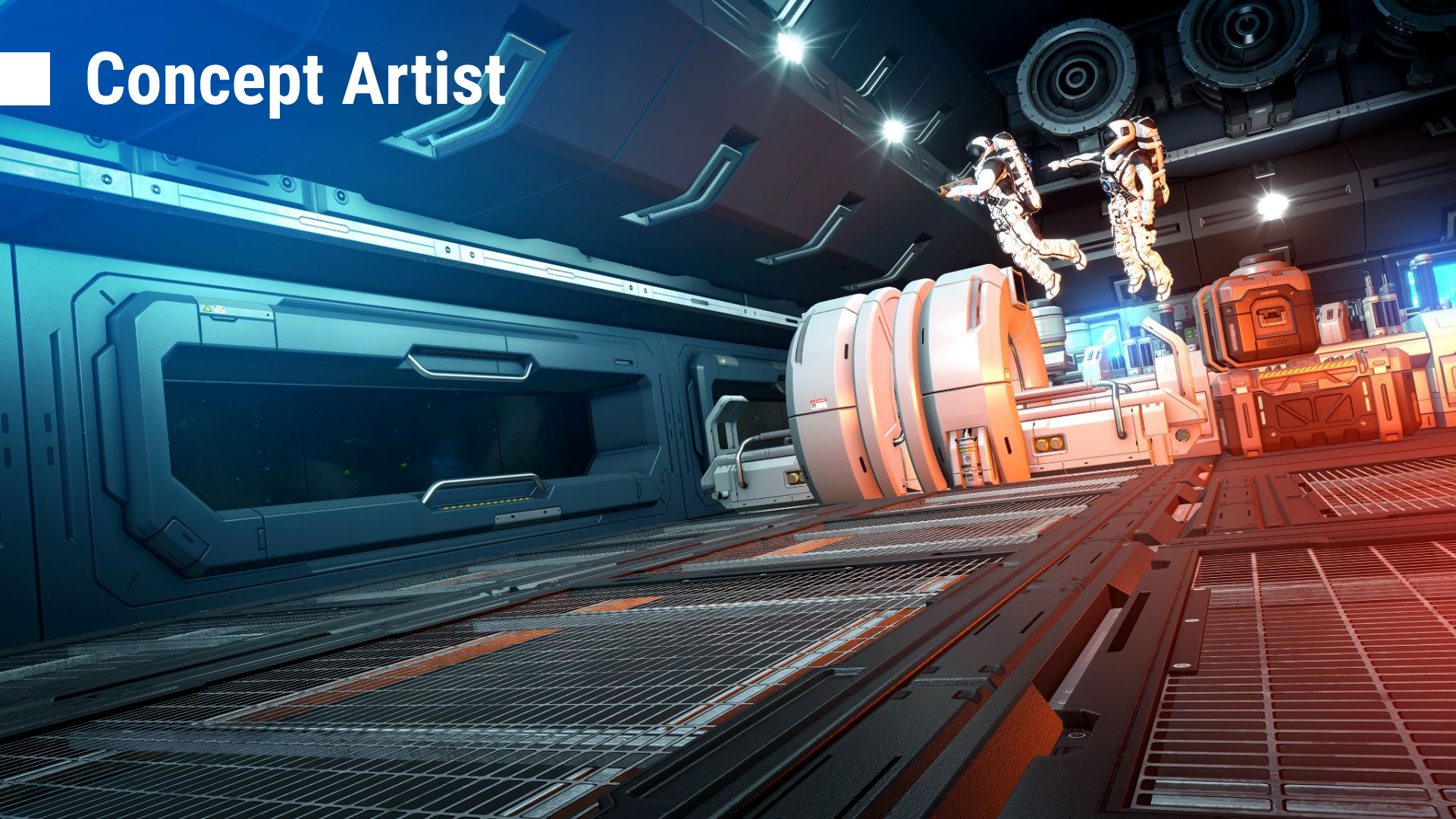
Concept Artist



Actual model rendered in Marmoset Toolbag:




■ Concept Artist



Concept Artist

Soft and Tools you will need the most as a concept artist:



Ps Adobe Photoshop

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Artwork by Danner Orozco
For more details and legal notices, go to the About Photoshop screen.

Initializing shared components...

Russell Williams, Thomas Knoll, John Knoll, Mark Hamburg, Jackie Lincoln-Ouyang, Alan Erickson, Sarah Kong, Jerry Harris, Mike Shaw, Thomas Ruark, Yukie Takahashi, David Dobrah, John Peterson, Adam Derugin, Yuko Kagita, Foster Breston, Meredith Payne Sotzner, Tai Luon, Vinod Balakrishnan, Maria Yapo, Pam Clark, Steve Guillemet, David Hackel, Eric Floch, Judy Lee, Kevin Hopps, Barkin Ayygun, Brittany Hendrickson, Bob Gardner, Vishal Wadhwa, Raman Kumar Gupta, Paul Kleckla, Jared Wyles, Stephen Nielson, Hannah Nicollet, Vicky Springer, Mansi Chaudhari, Jeanne Rubbo, Subhash Jha, Sandeep Sharma, Sohrab Amigheodi, Pulkit Mehta, Pulkit Jindal, Cory McChoy, Ramanarayanan Krishnaiyer, Matthew Neldam, Quynh Megan Le, Guotong Feng, Zhengyun Zhang, Aanchal Jain

Adobe Creative Cloud



3D ARTIST



3D Artist

Hard Surface



Organic





Emotion we should avoid invoking in a viewer



Emotion we should strive for invoking in a viewer

3D Artist

THE MAGIC OF THE 70/30 RULE



3D Artist



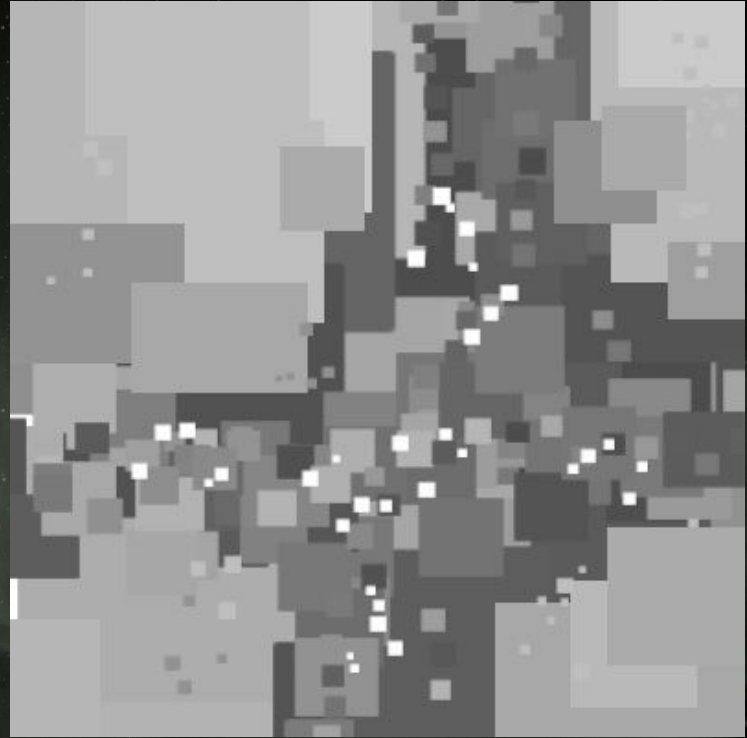
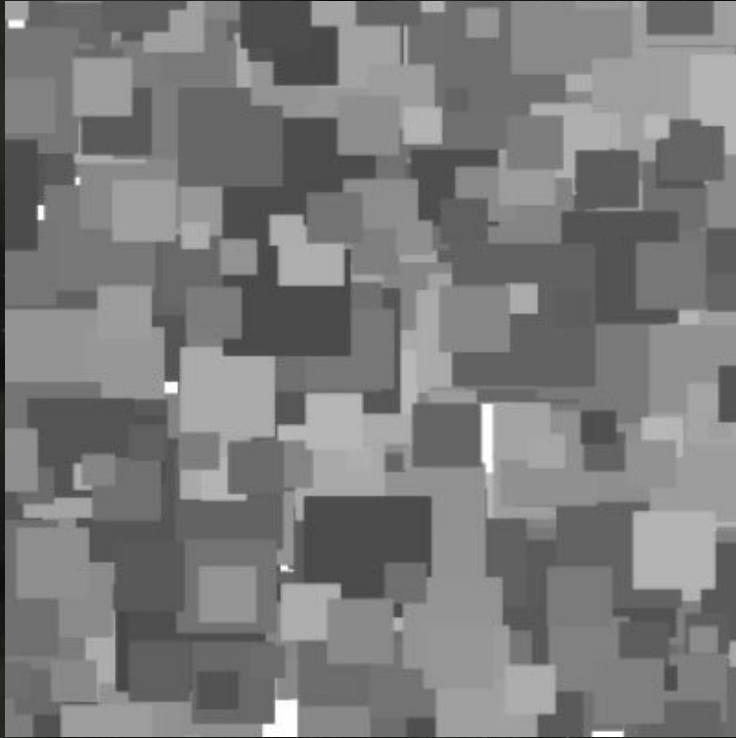
70/30 rule: Clean (Eye Rest) vs. Busy areas

3D Artist



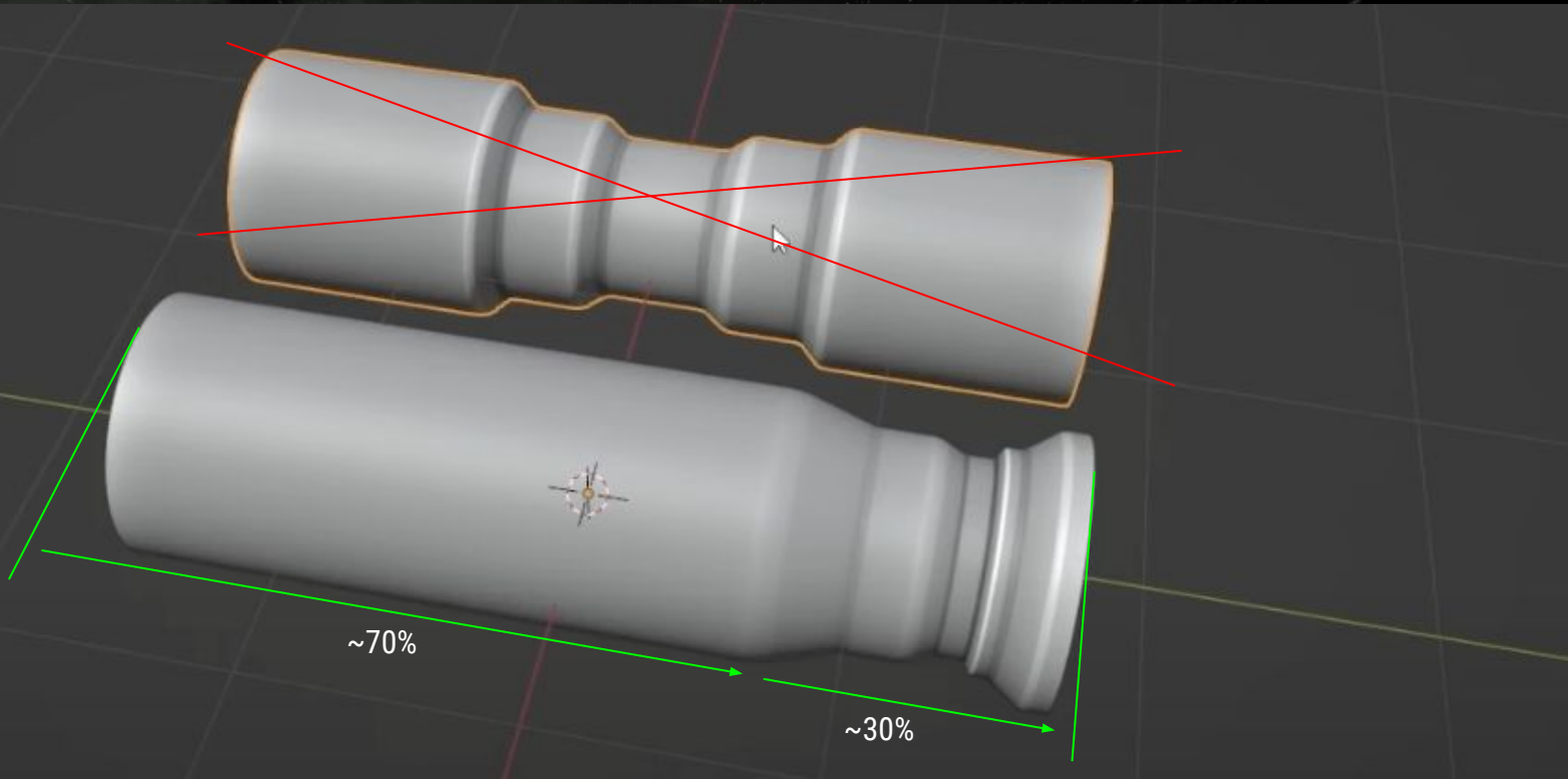
70/30 rule in action : Loose (Washed out) vs. highly detailed areas,
Dark vs. Bright, Warm vs. Cold

3D Artist



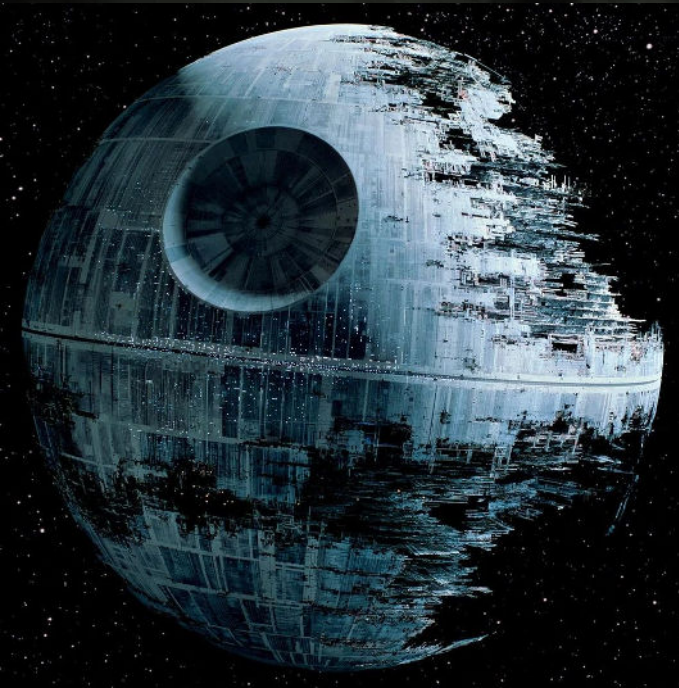
70/30 rule: Clean (Eye Rest) vs. Busy areas

3D Artist



70/30 rule: Clean (Eye Rest) vs. Busy areas

3D Artist



DESIGN: DANIEL SIMON FOR UNIVERSAL

70/30 rule in action: Destroyed vs. Intact, No detail vs. High detail, Bright vs. Dark

3D Artist



We follow these (and lots of other) rules to almost everything we do in Space Engineers

3D Artist



Ion Thruster block from Space Engineers: "Sparks of the Future" DLC

3D Artist



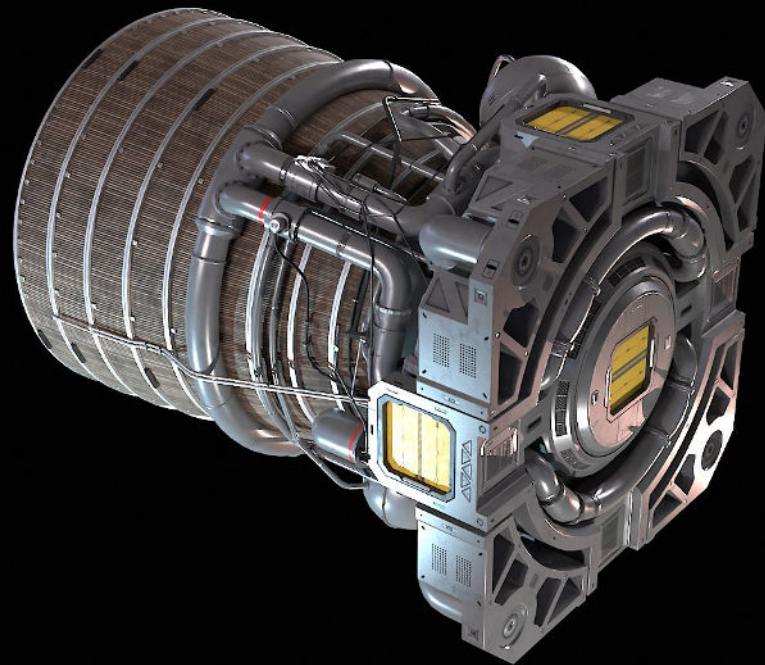
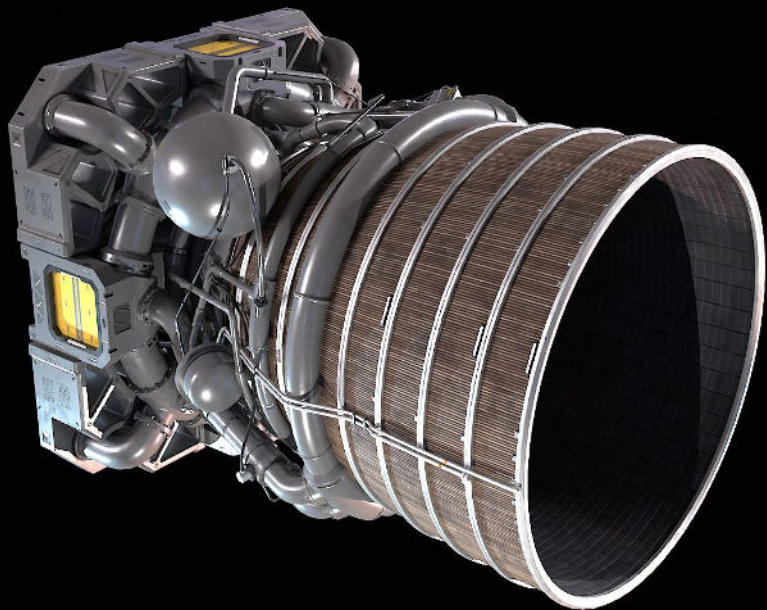
Medical Station block
(Decorative Blocks II DLC)



3D Artist



3D Artist



Hydrogen Thruster block from Space Engineers: "Heavy Industry" DLC



**SPACE
ENGINEERS**



**HEAVY
INDUSTRY PACK**



WARFARE II BROADSIDE UPDATE



WARFARE II BROADSIDE PACK

CUSTOM TURRET CONTROLLER



WARFARE AMMO



ARTILLERY TURRET



WARFARE REACTOR



WARFARE ION THRUSTER



LIGHT PANEL



WARFARE HANGAR DOOR



ASSAULT CANNON



AUTOCANNON TURRET



ASSAULT CANNON TURRET

WARFARE BATTERY



SEARCHLIGHT



HEAT VENT



BRIDGE WINDOWS

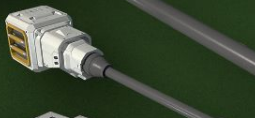


PASSENGER BENCH

ARTILLERY



AUTOCANNON



WOODLAND CAMO SKIN

WARFARE ROCKET LAUNCHER



SHARK HELMET

WARFARE GATLING GUN



SMALL ASSAULT CANNON TURRET



OFFSET PASSENGER SEAT



RAILGUN



HELM



SLIDING HATCH DOOR



ROCK PAPER SCISSORS EMOTE



SALUTE EMOTE



AVAILABLE NOW ON



STEAM® &



XBOX



SPARKS OF THE FUTURE

AUTOMATIC WEATHER

SMALL GRID DOOR



HINGES (LARGE, MEDIUM AND SMALL)



SPARKS OF THE FUTURE PACK

2 NEON ARMOR SKINS



NEON TUBES

SCI-FI INTERIOR WALL



SCI-FI ATMOSPHERIC THRUSTERS



SCI-FI ION THRUSTERS

TERMINAL PANEL



SINGLE BUTTON PANEL



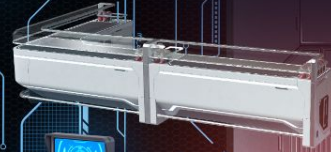
SCI-FI BUTTON PANEL

SCI-FI ARMOR SKIN



SMALL GRID SIDE DOOR

BAR COUNTER



5 LCD POSTERS



3D LETTERS



HUGE "SPARKS" STATION



3 EXTRA LARGE LCD PANELS



WASTELAND UPDATE
NEW PLANET & NEW ARMOR BLOCKS
ROVER COCKPIT & NEW VOXEL MATERIALS



**WASTELAND
PACK**

NEW VOXEL
MATERIALS

"CRACKED SOIL" VOXEL MATERIAL

"PERTAM SAND" VOXEL MATERIAL

NEW PLANET
"PERTAM"



ROVER
COCKPIT



"SCRAP RACE" SCENARIO



MORE ARMOR BLOCKS



RETROFUTURE ARMOR SKIN

HEAVY RUST ARMOR SKIN

DUST ARMOR SKIN

CONCRETE
ARMOR SKIN

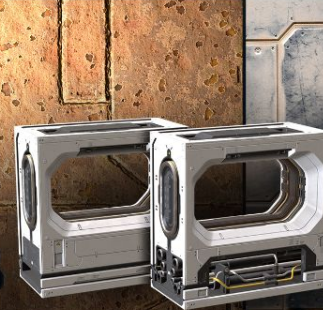


BUGGY
COCKPIT

EXHAUST PIPE



"SCAVENGER" CHARACTER SKIN
AND TWO NEW EMOTES



VIEWPORT BLOCKS
(TWO VERSIONS)



SHELVES
(THREE VERSIONS)



OFF-ROAD WHEELS

CAR LIGHTS

SUSPENSION BLOCKS



BARRED WINDOWS

AVAILABLE NOW ON



STEAM® &



XBOX ONE



SPACE
ENGINEERS



WASTELAND
PACK



**SPACE
ENGINEERS**



**SPARKS OF
THE FUTURE DLC**

EXPLORE THE FUTURE
HELP US BUILD OUR UNIVERSE

THUNDER FLEET
JOIN THE GOOD GUYS



3D Artist - ESSENTIAL SOFTWARE

MODELING

- Autodesk 3D Studio Max
- Autodesk Maya (alternative)
- Blender (alternative)
- Zbrush

TEXTURING

- Substance Painter
- Substance Designer
- Adobe Photoshop

DRAWING

- Adobe Photoshop
- Adobe Illustrator

GAME ENGINES

- Unreal Engine
- Unity

3D Artist - KNOWLEDGE

PBR

Physically Based Rendering

Is one of the most important concepts in gamedev you must learn and be fluent in

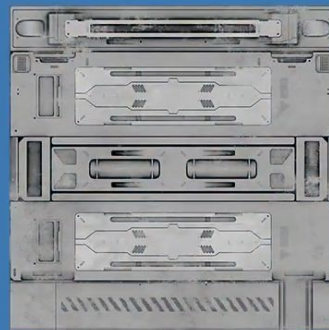
3D Artist - KNOWLEDGE



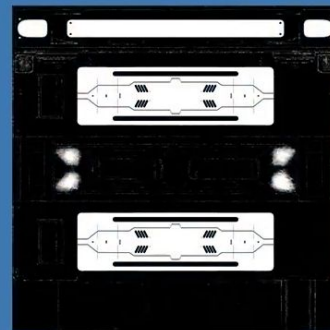
ALBEDO



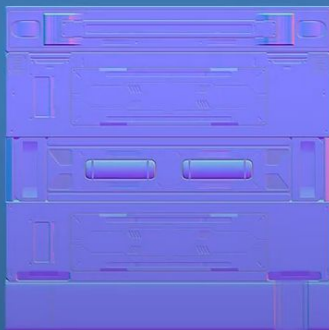
ROUGHNESS



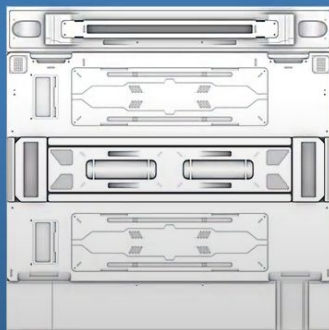
GLOSSINESS



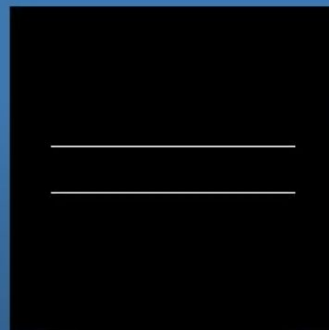
METALNESS



NORMALS



OCCCLUSION



EMISSIVENESS



HEIGHT

CHARACTER ARTIST



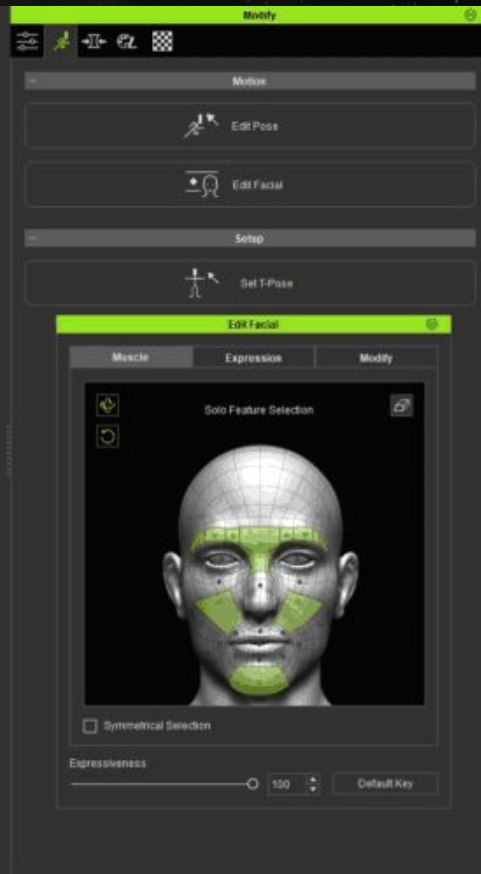
Character Artist

Character Creator + Headshot plugin



Character Artist

Character Creator + Headshot plugin



Character Artist

Model of an Astronaut in Space engineers. Modelled
in 3D Studio Max + Zbrush



Character Artist

Model of an Astronaut in Space engineers. Modelled
in 3D Studio Max + Zbrush



Naliq Aghayev 2016



Character Artist

Model of an Astronaut in Space engineers. Modelled in 3D Studio Max + Zbrush



Character Artist

Model of an Astronaut in Space engineers. Modelled
in 3D Studio Max + Zbrush



Naliq Aghayev 2016



Naliq Aghayev 2016



Naliq Aghayev 2016

Character Artist - SOFTWARE

MODELING

- Autodesk 3D Studio Max
- Autodesk Maya (alternative)
- Blender (alternative)
- Zbrush

GAME ENGINES

- Unreal Engine
- Unity (alternative)

TEXTURING

- Substance Painter
- Adobe Photoshop
- Adobe Illustrator

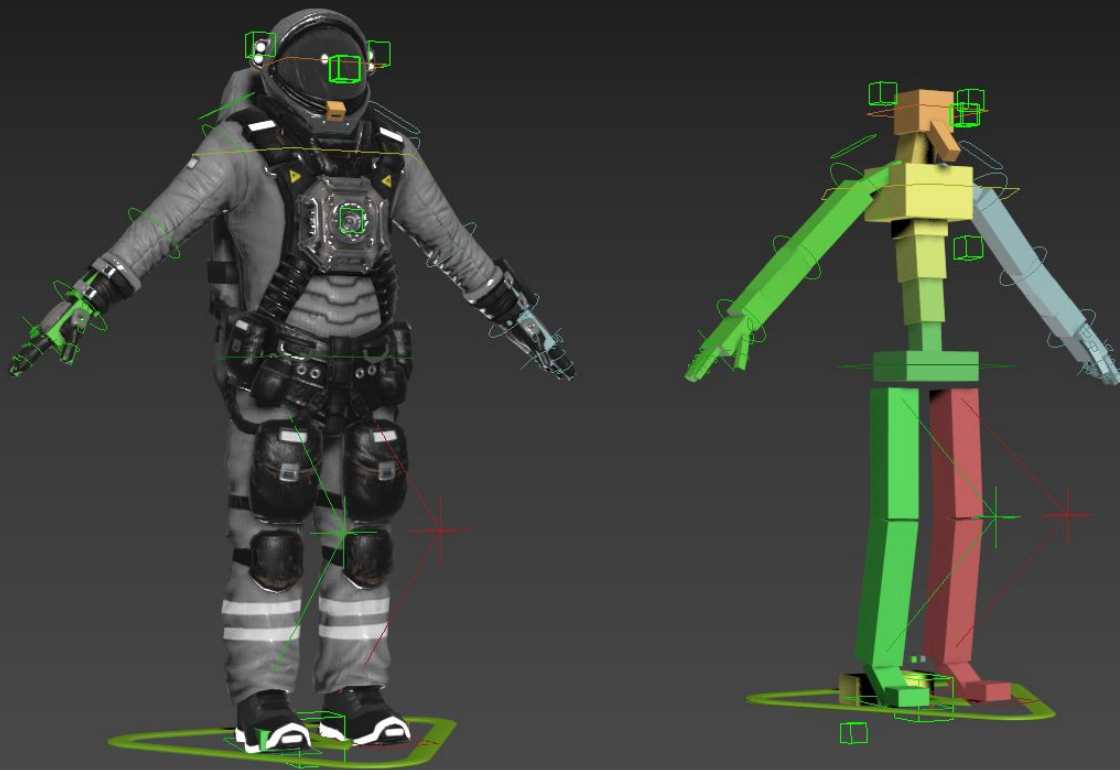
SPECIFICS

- Character Creator
- Marvelous Designer

ANIMATOR ARTIST



Animator Artist



Rig of a Space Engineer
Astronaut Character

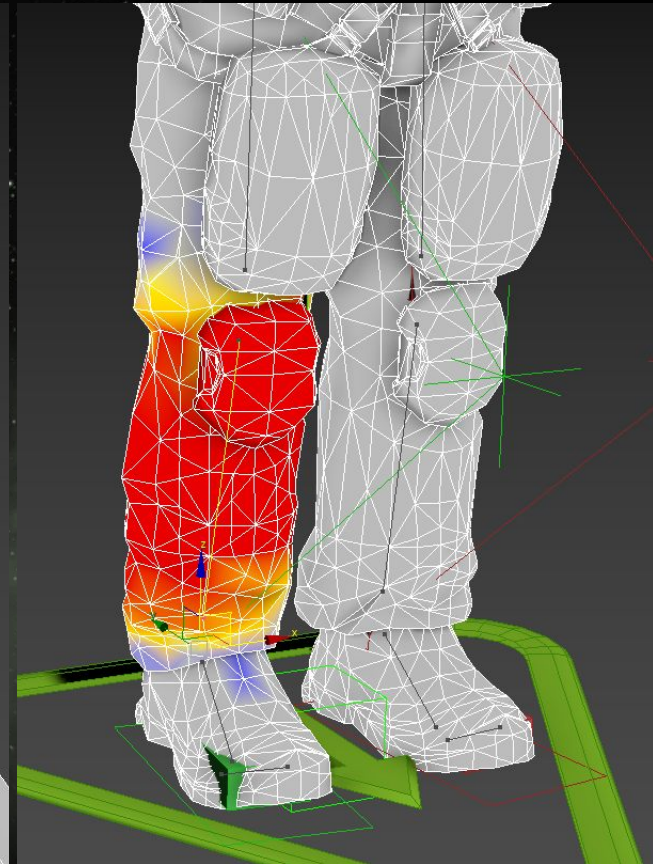
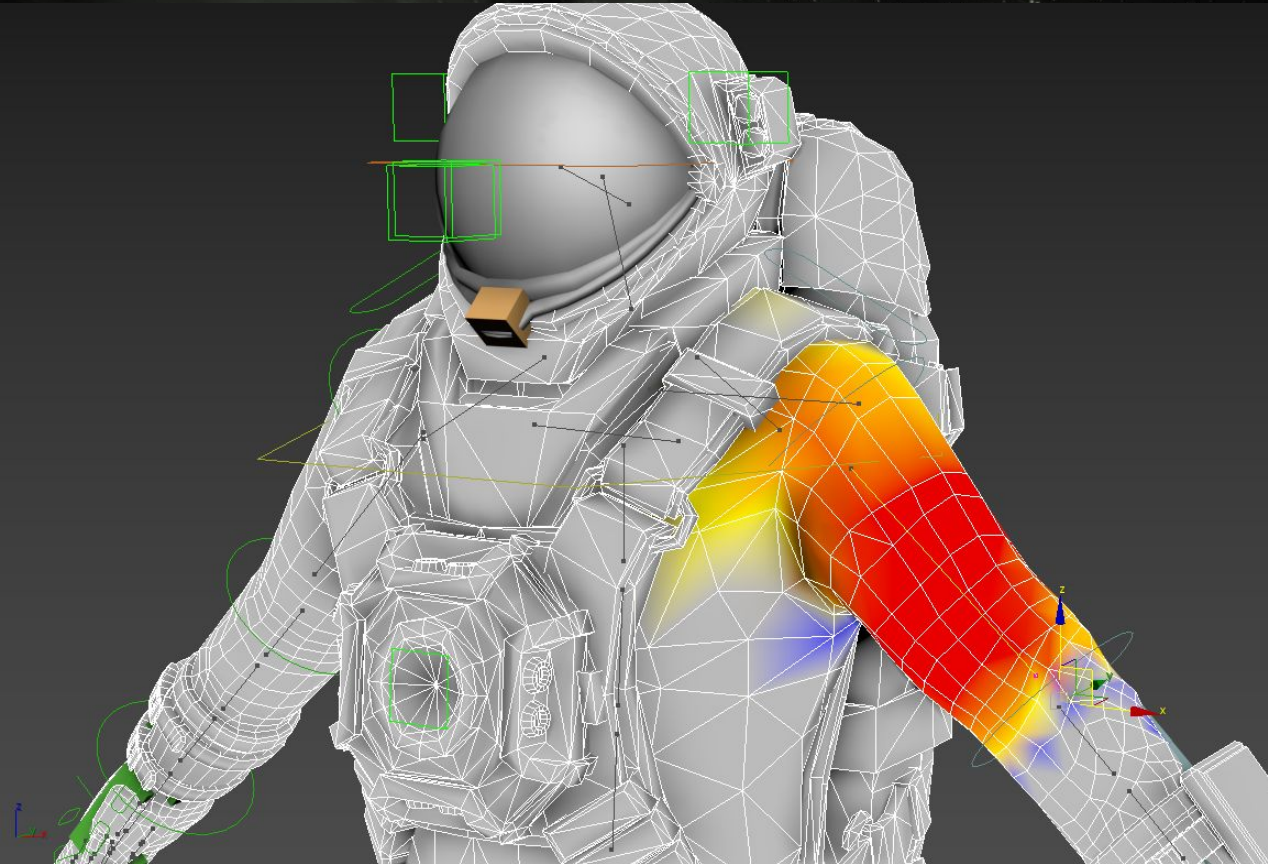
Animator Artist



Rig of a Space Engineer
Astronaut Character

Animator Artist

Skinning process



Animator Artist



The Rig is ready for animating!

■ Animator Artist



A few Motion Capture tests

■ Animator Artist



A few Motion Capture tests

■ Animator Artist



A few Motion Capture tests

■ Animator Artist



A few Motion Capture tests

TECHNICAL ARTIST



Technical Artist

Choose your Superpower!



Max Script



Maya MEL



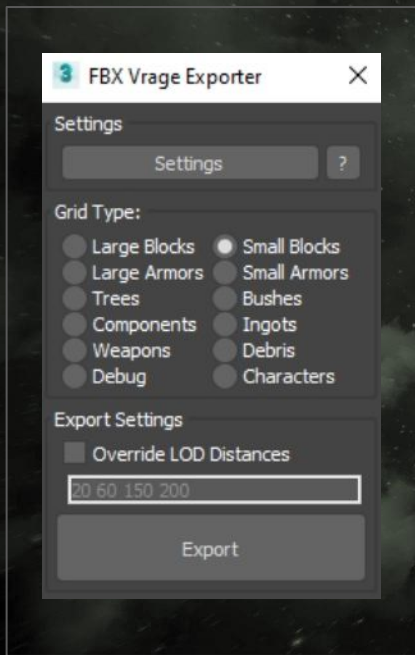
Python



Houdini VEX

Technical Artist

Simple example of a script:



FBX Model

LODs

Runs Model Builder

Adds Havok Collisions

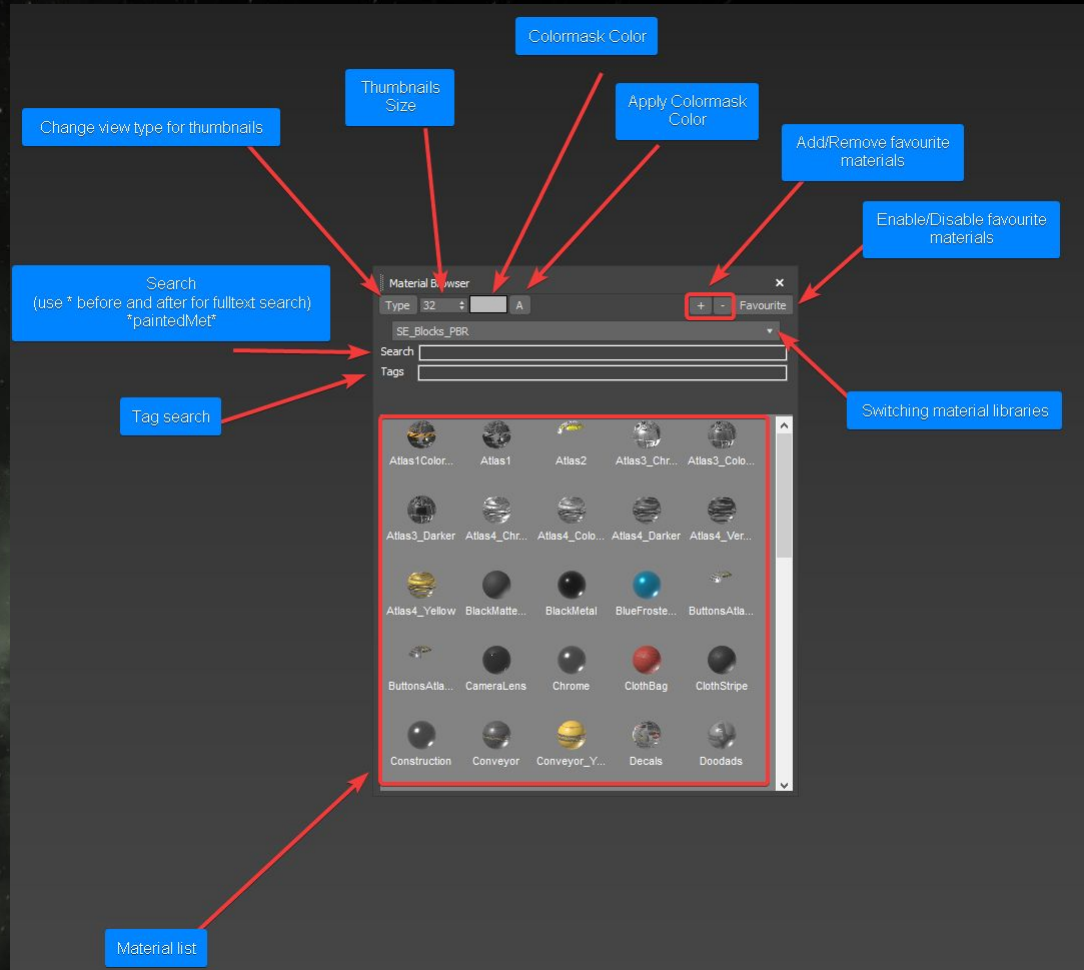
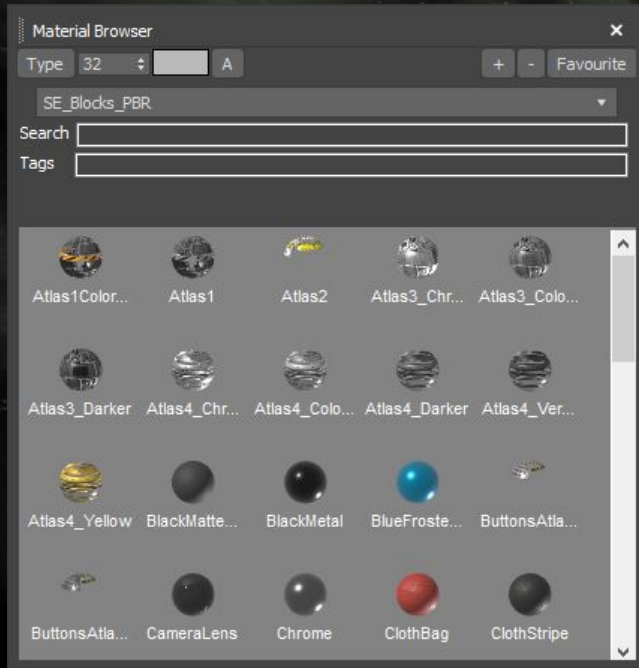
Sets LOD distances

Builds Model



.MWM
file used in game

Technical Artist



UI/UX ARTIST



UI/UX Artist



Main UI Screen of Space Engineers

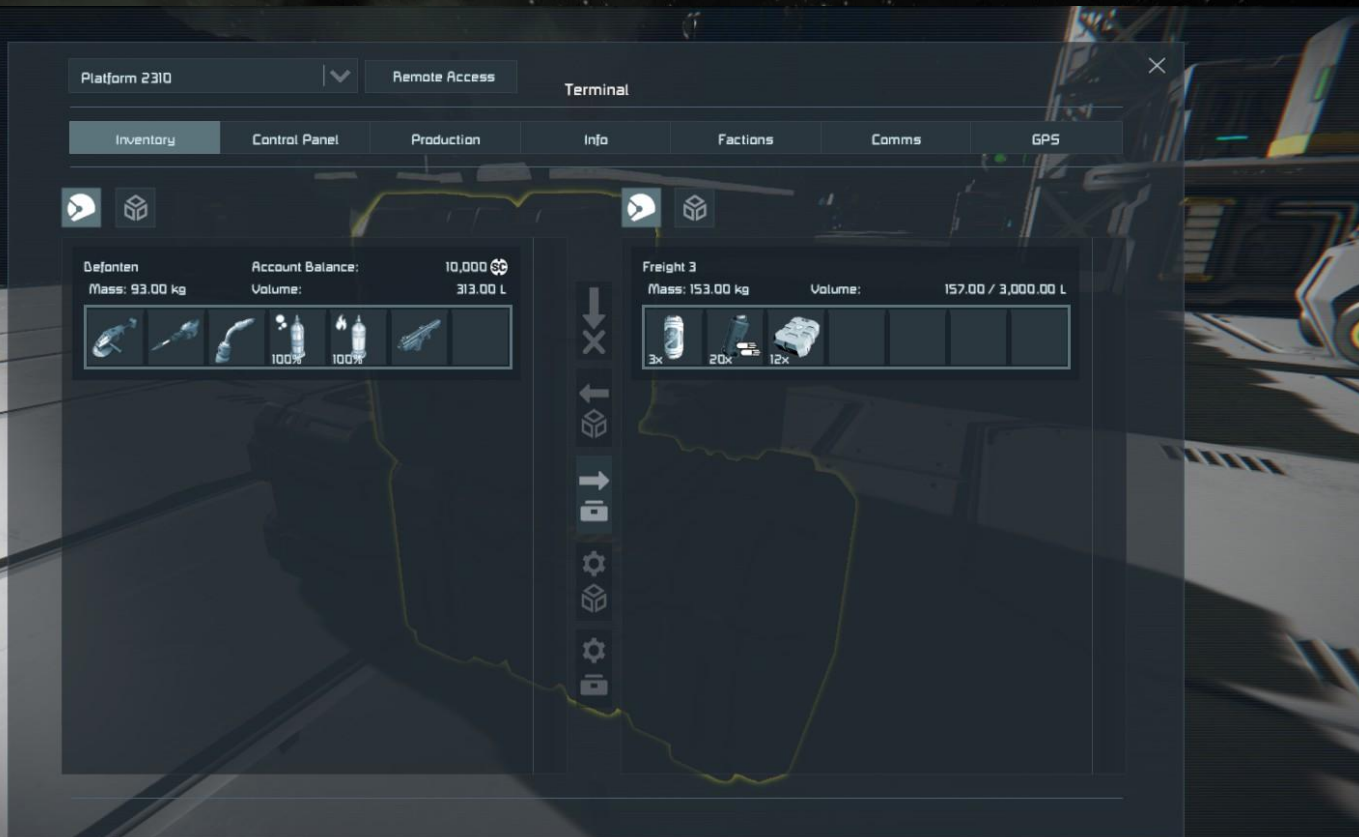
UI/UX Artist



Interacting with the in-game items

UI/UX Artist

Inventory UI Screen



UI/UX Artist

Solving arising UI/UX problems

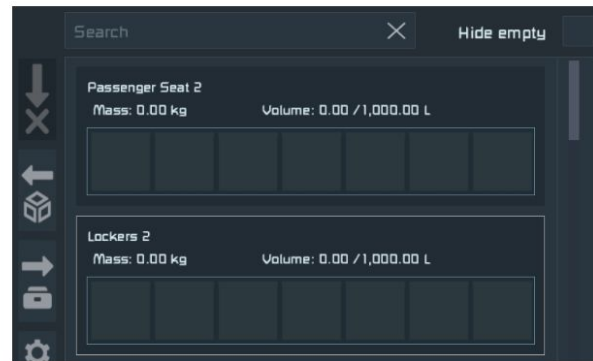
Problem



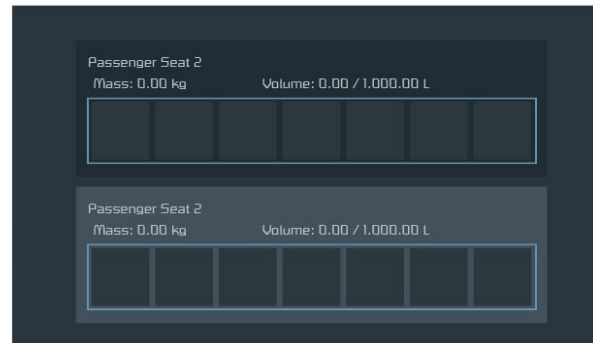
Solution



Problem



Solution



UI/UX Artist



Main Gameplay UI Screen

UI/UX Artist



Main Gameplay UI Screen

UI/UX Artist

New Game

Scenarios

Workshop

Custom Game

Space Engineers is primarily a sandbox game, which features non-linear story gameplay that's defined by goals and objectives present in default scenarios, or those created by players for themselves or other players.



Frostbite



Sparks of the Future



Uranium Heist



Scrap Race



Name

Lost Colony

Author

Mikko Saarijärvi

Online mode

Offline

Max Players

4

Rating



Contact has been lost with a remote colony and it's your job to find out what happened. With up to four players, embark on an exciting journey through caves and mysterious underground bunkers while exploring the valley and its history via data pads left behind by the colonists.

Start

Advanced World Settings

Characters inventory size

x3

Blocks inventory size

Realistic

Assembler efficiency

x3

Refinery speed

x3

Welding speed

x2

Grinding speed

x2

Environment hostility

Safe

Asteroid amount

Infinite: Normal density

Sound mode

Arcade

Limit world size

Unlimited

View distance

15 km

Respawn ship cooldown

Cooldowns disabled

Enable sun rotation



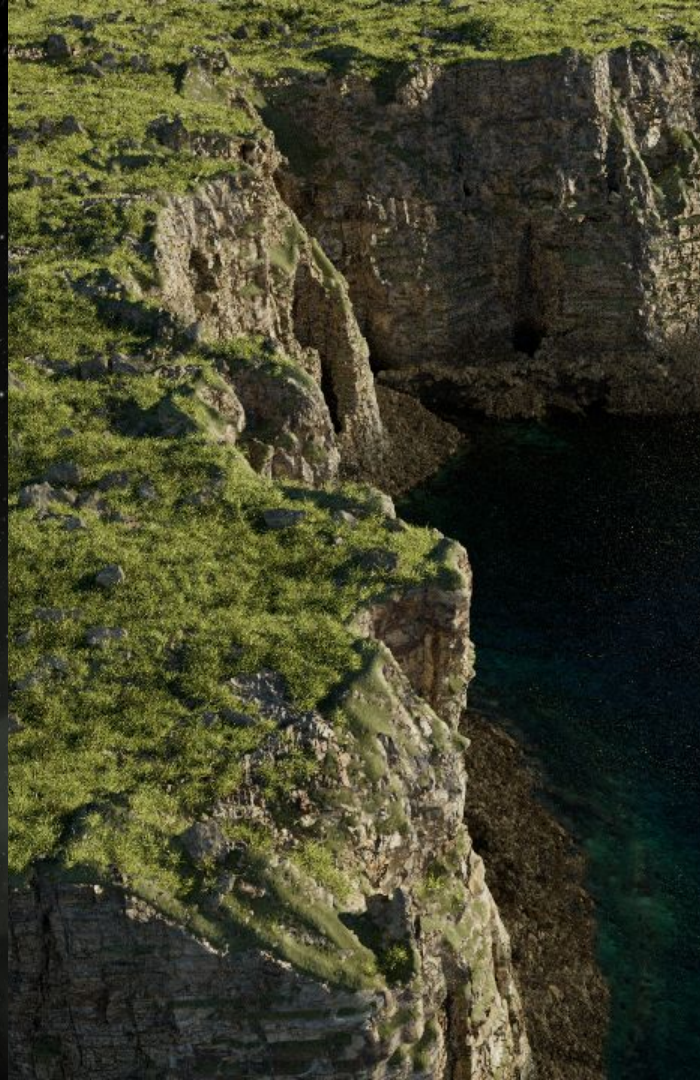
Day duration

2 hours

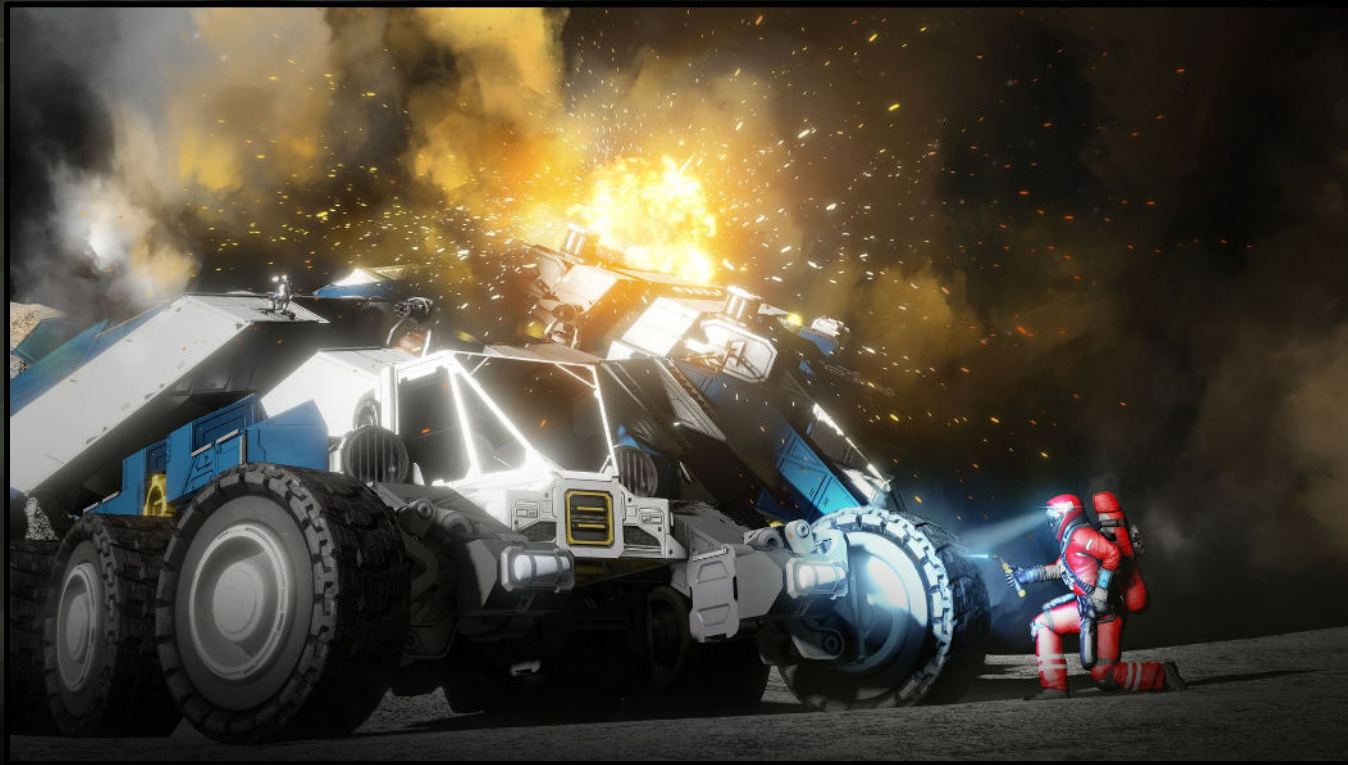
OK

Cancel

**VFX
ARTIST**



VFX Artist



Particle Effects: Explosions, Muzzle Flashes,
Smoke, Dust, Debris, Sparks etc.

VFX Artist



Particle Effects: Explosions, Muzzle Flashes,
Smoke, Dust, Debris, Sparks etc.

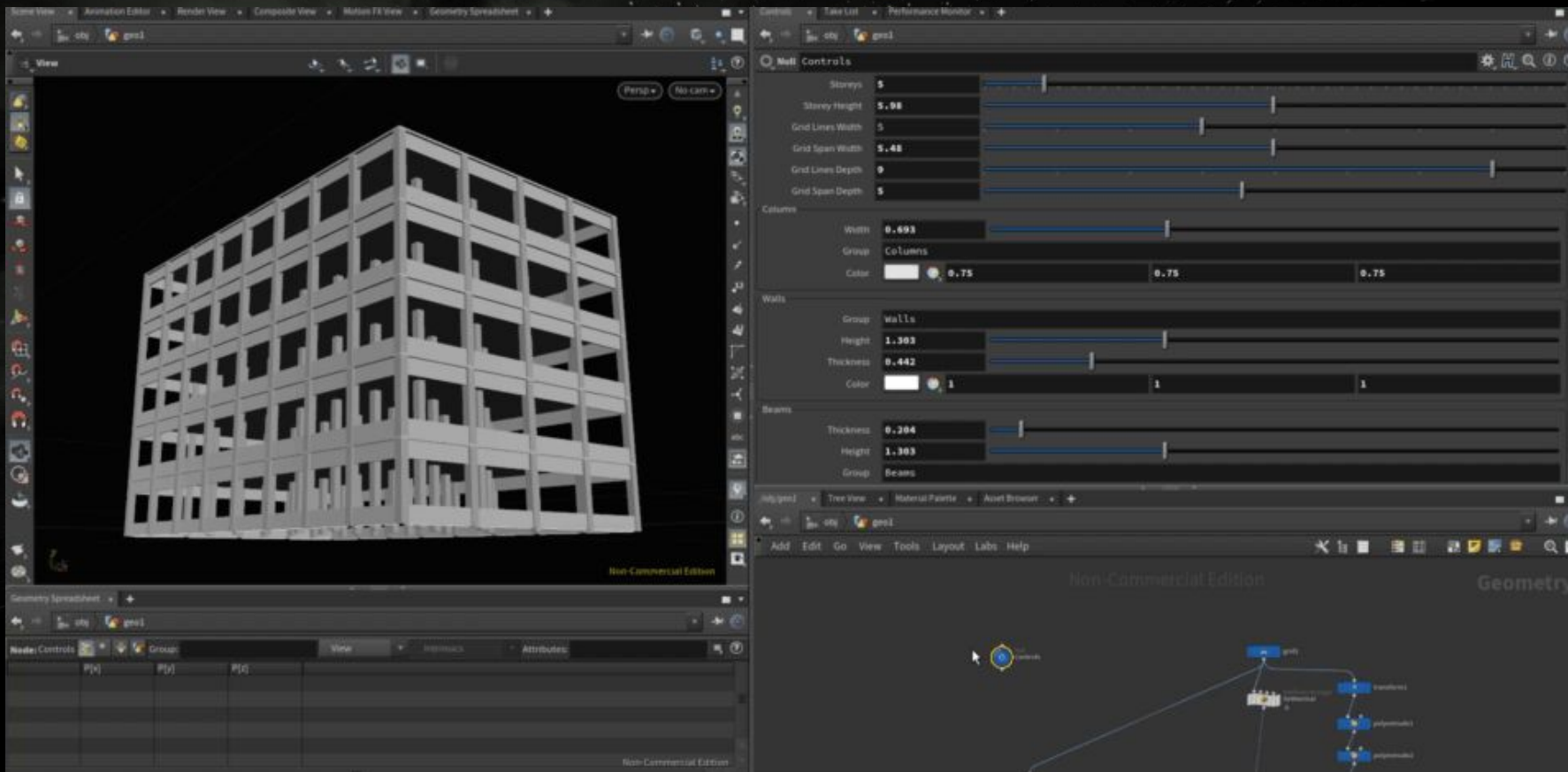
VFX Artist



Particle Effects: Explosions, Muzzle Flashes,
Smoke, Dust, Debris, Sparks etc.

VFX Artist

Setting up procedural pipelines allowing quick iterations and tweaking of assets on the fly



VFX Artist

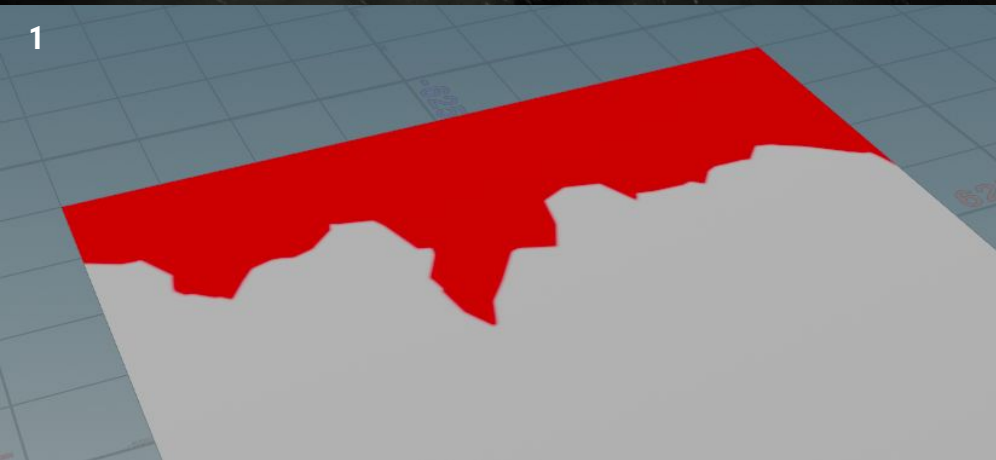
Setting up procedural pipelines allowing quick iterations and tweaking of assets on the fly



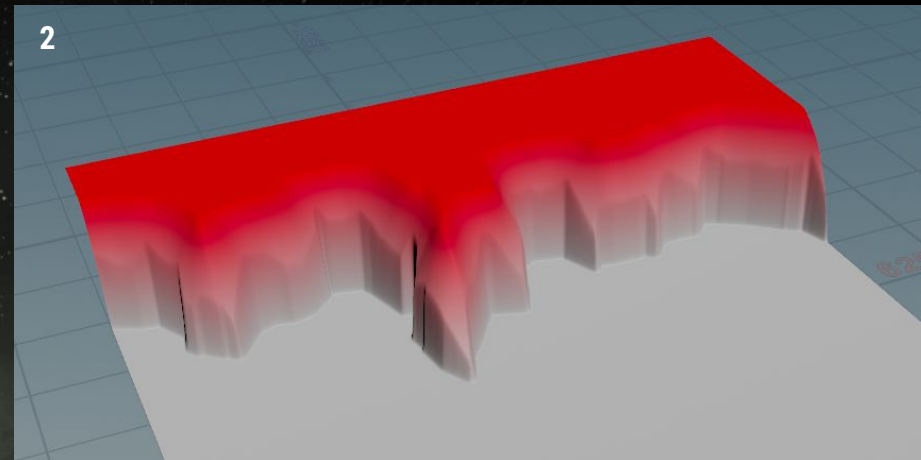
VFX Artist

Creating Rocky cliffs and Mountains fully procedurally in Houdini

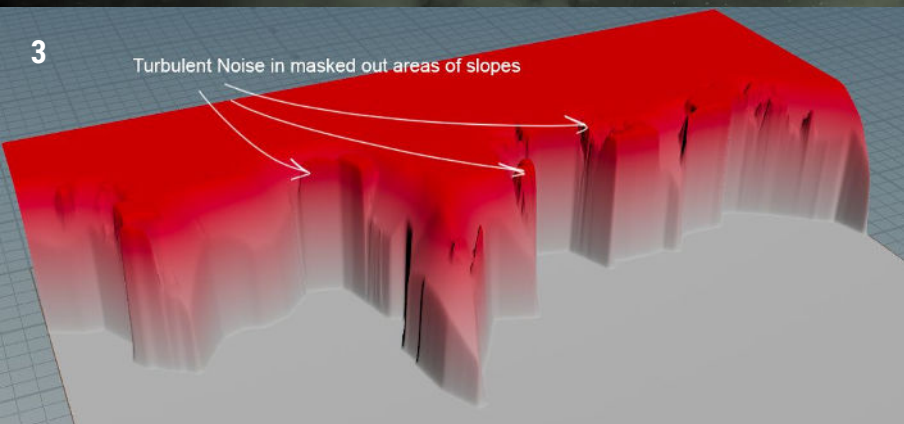
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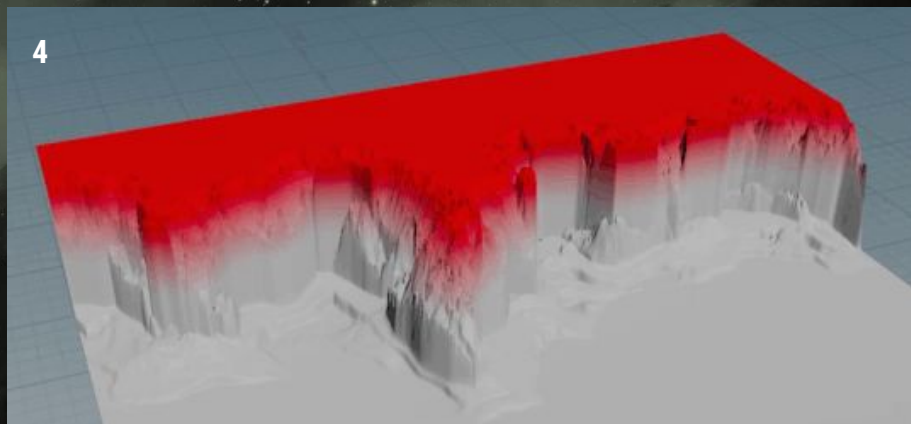
2



3



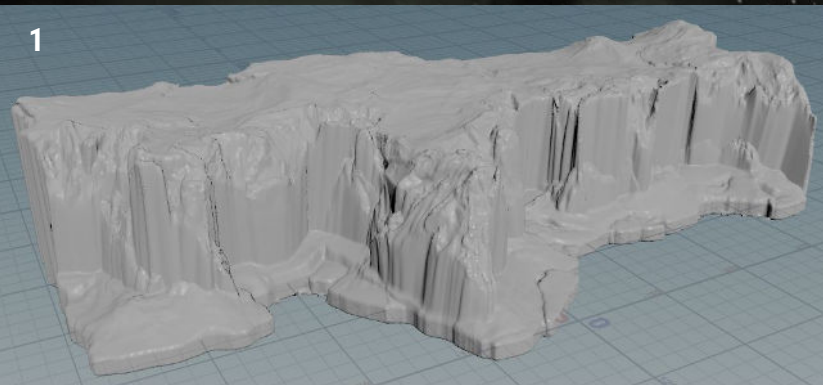
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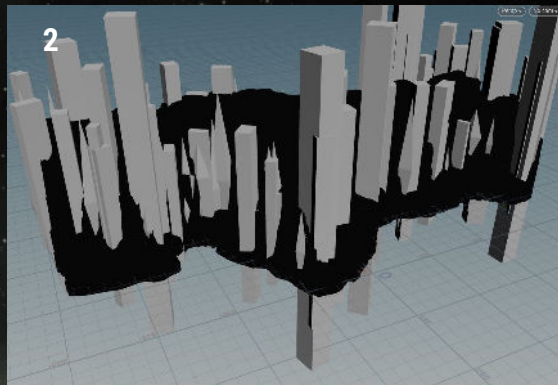
VFX Artist

Creating Rocky cliffs and Mountains fully procedurally in Houdini

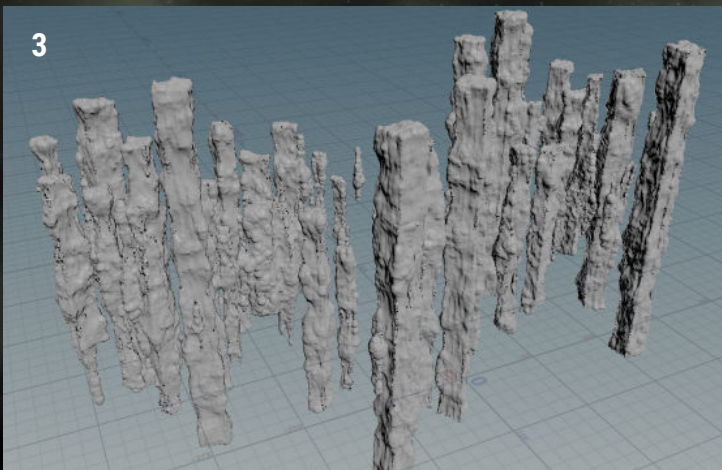
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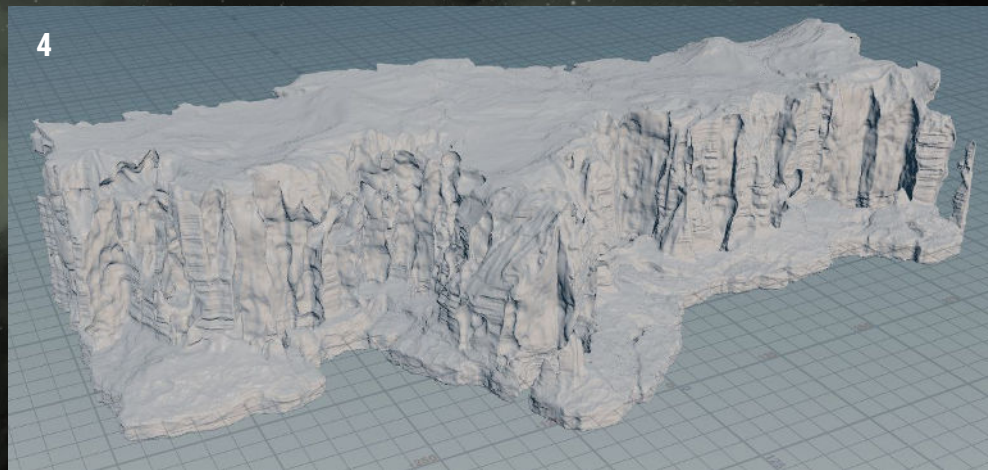
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3



4



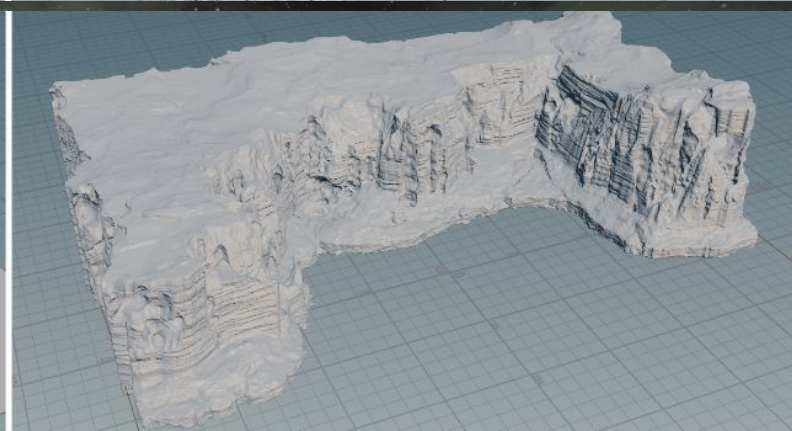
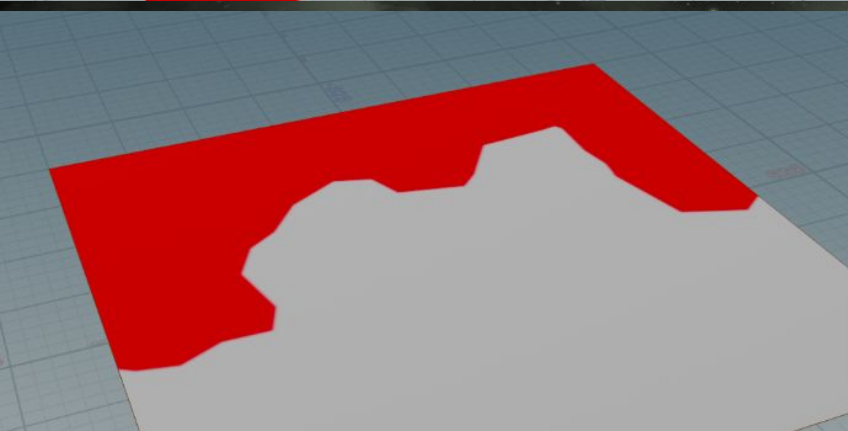
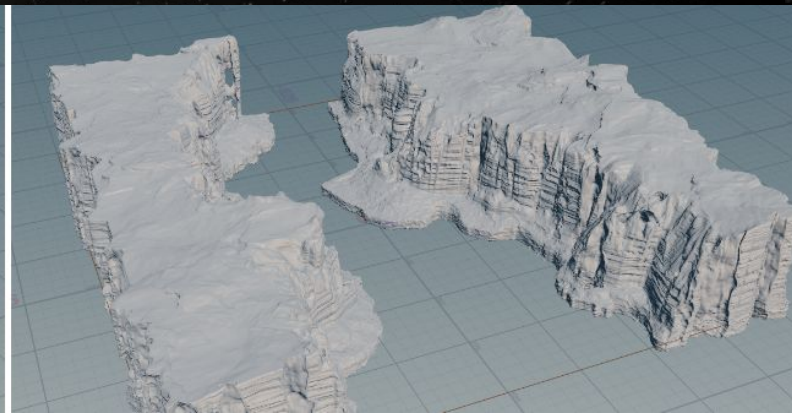
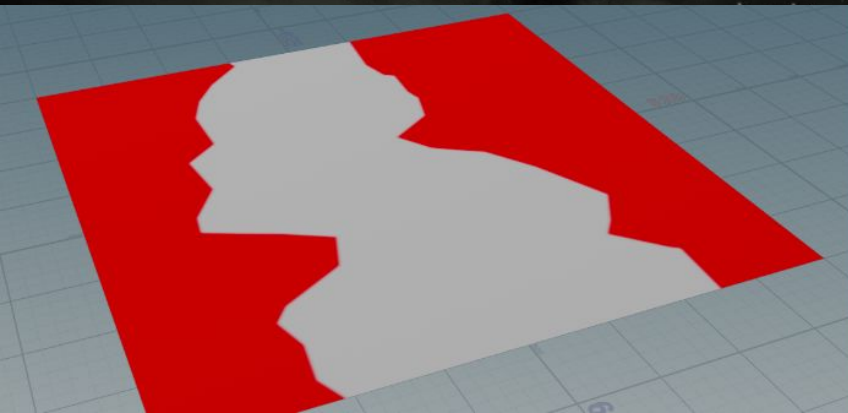


VFX Artist



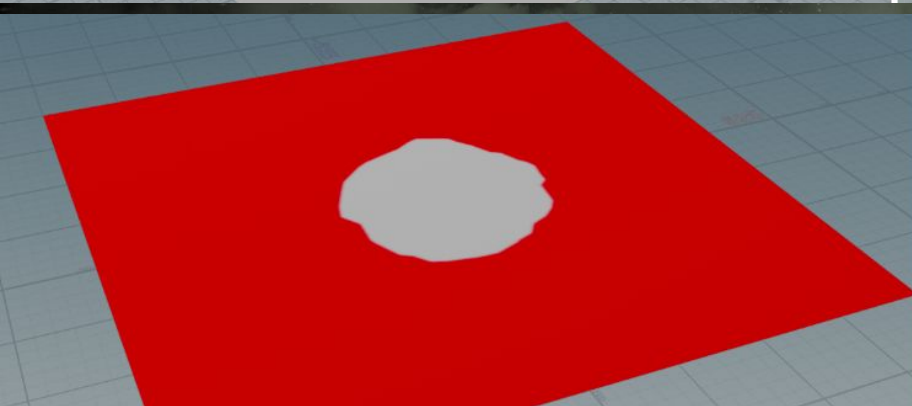
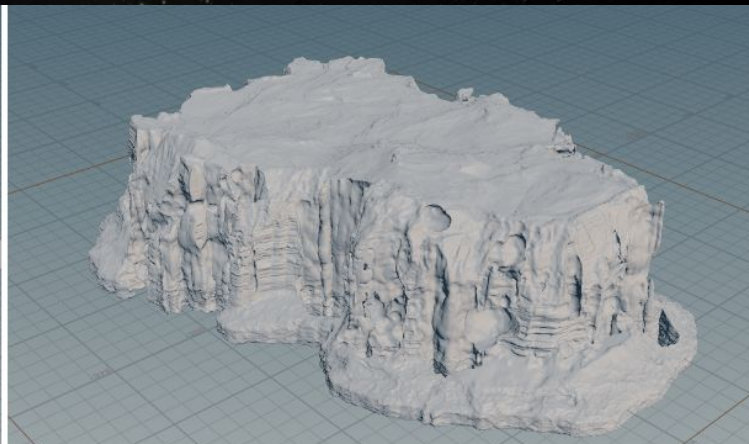
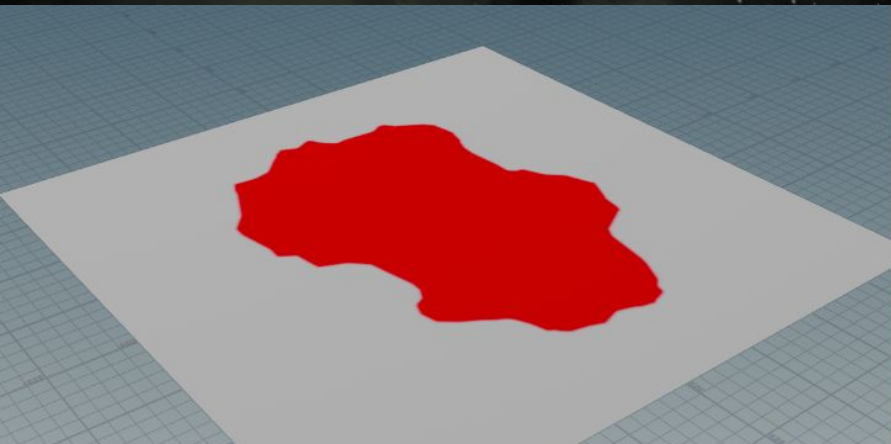
VFX Artist

Once the full setup is done - generating hundreds of variations of such mountain formations is a matter of few clicks



VFX Artist

Once the full setup is done - generating hundreds of variations of such mountain formations is a matter of few clicks





VFX Artist



VFX Artist



■ VFX Artist



■ VFX Artist



VFX Artist 



■ VFX Artist



VFX Artist - SOFTWARE

MODELING

- Autodesk 3D Studio Max
- Autodesk Maya (alternative)
- Blender (alternative)
- Zbrush

GAME ENGINES

- Unreal Engine
- Unity

TEXTURING

- Substance Painter
- Substance Designer
- Adobe Photoshop

VFX SPECIFICS

- Houdini
- EmberGen (alternative)
- World Creator (alternative)

SCRIPTING

- VEX (Houdini)
- Python



EXPLORE THE FUTURE
AND US BUILD OUR UNIVERSE



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