



Wall Tech-01-v.01.SBSAR

Sci-Fi-Futuristic environment texture asset, including PBR Substance metal material.



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1. What is a Substance?

The general concept.

Substance Designer - a software tool developed in 2007 by Allegorithmic to create textures.

<http://www.allegorithmic.com>

A Substance is a file with the .SBSAR extension.

Substances can be used in the following products:

Substance Designer

Substance Player

Unity 3d (3.4 and above)

Autodesk Maya 2012 and above

Autodesk 3ds Max 2012 and above

Autodesk Flame 2012 and above

1.1 Benefits of using SBSAR

A Substance is a file with the .SBSAR extension. This is a new asset type known as Procedural Materials. These are essentially the same as standard Materials except that the textures they use can be generated at runtime rather than being predefined and stored.

The script code that generates a texture procedurally will typically take up much less space in storage and transmission than a bitmap image and so Procedural Materials can help reduce download times. Additionally, the generation script can be equipped with parameters that can be changed in order to vary the visual properties of the material at runtime. These properties can be anything from color variations to the size of bricks in a wall. Not only does this mean that many variations can be generated from a single Procedural Material but also that the material can be animated on a frame-by-frame basis. Many interesting visual effects are possible - imagine a character gradually turning to stone or acid damaging a surface as it touches.

2. Wall-Tech Full-V.01.SBSAR

2.1 Description

Sci-Fi-Futuristic environment texture asset, including PBR Substance metal material. This dynamic material can be tweaked to create hundreds of different sci-fi patterns in a tiny package.

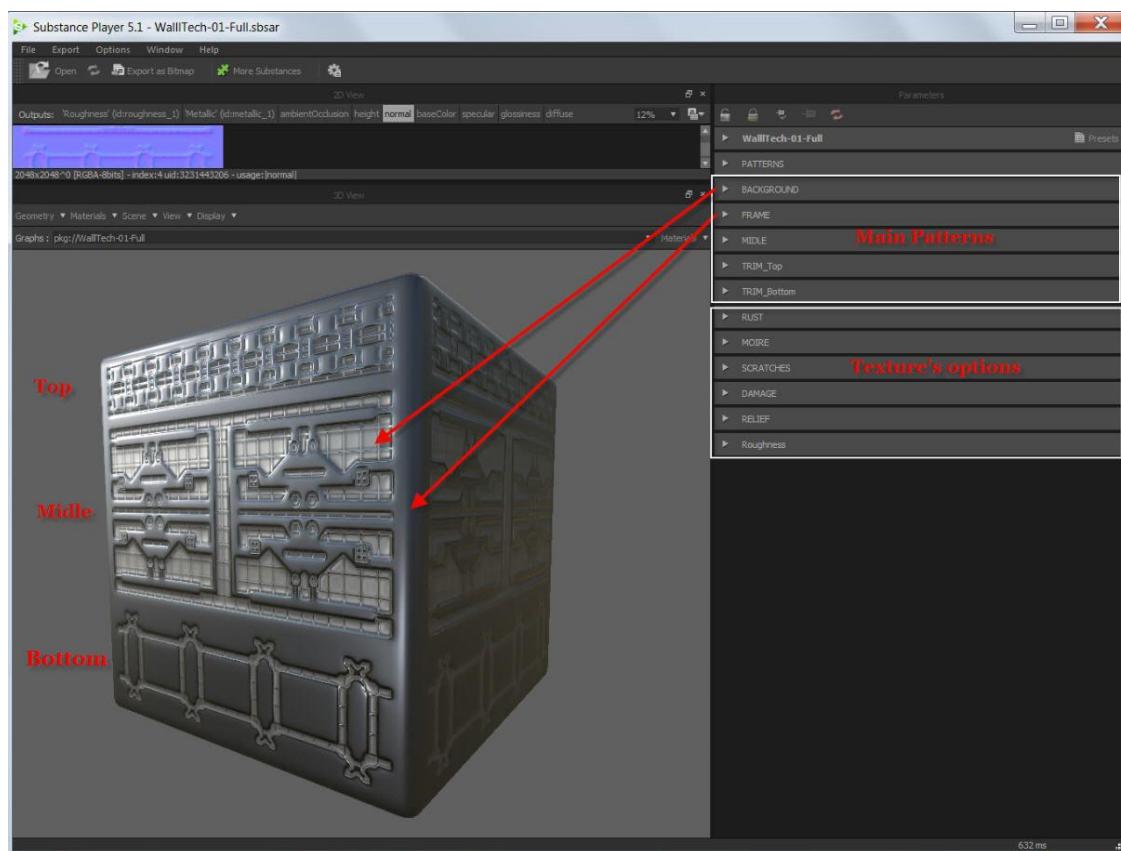
Highly customizable – Many in One : create a lot of variations using simple sliders to customize your materials in-app. Material ready to go. Great for decorating a futuristic or Sci-Fi environment: walls, panels, floors.

Full version contains texture's and relief's settings: Rust; Scratches; Damage; Normal intensity; Pinch, Metallic roughness influence; Moire.

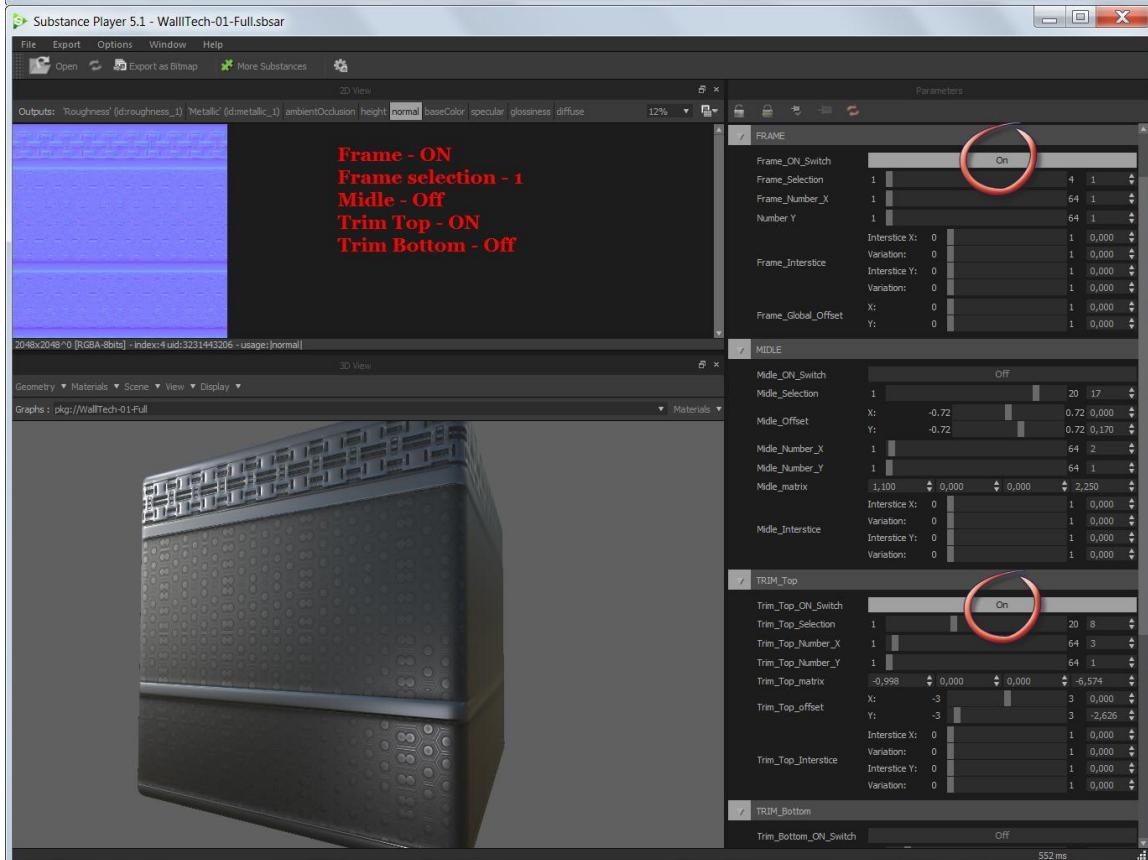
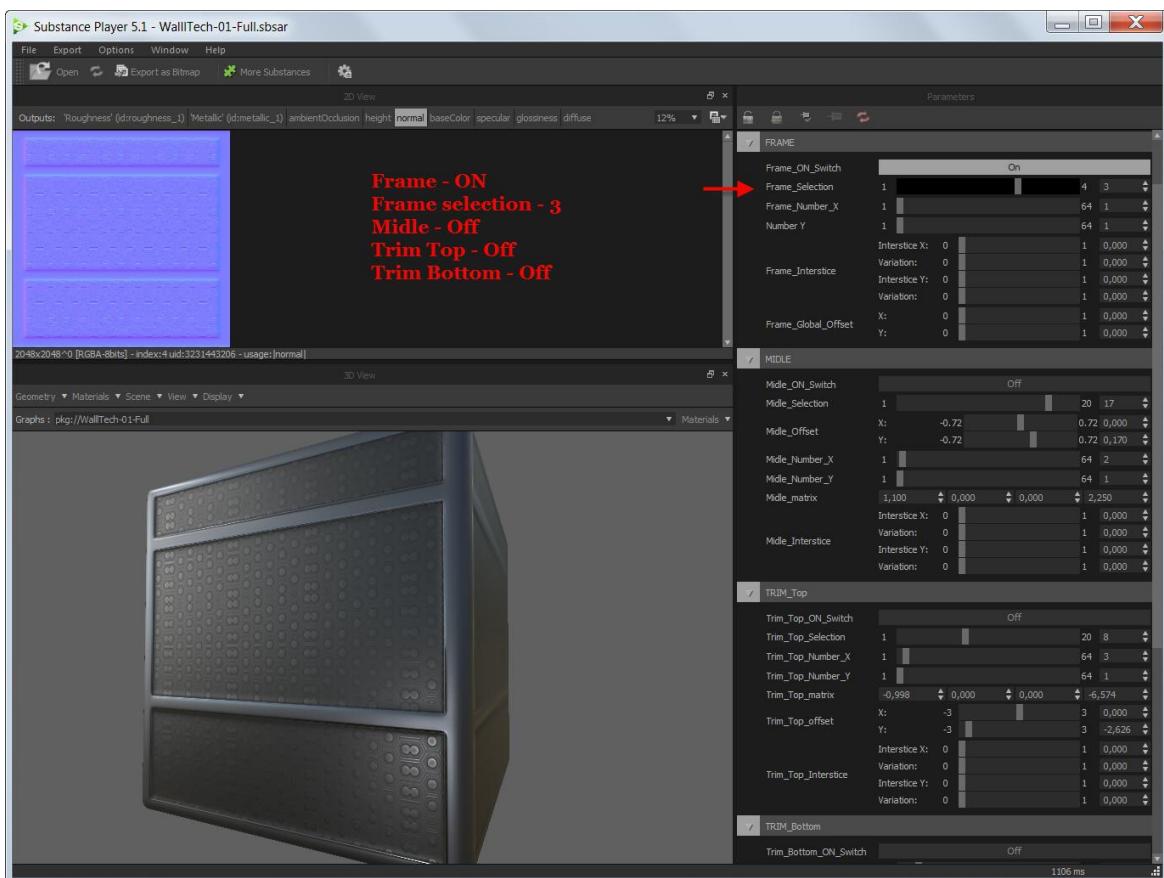
You can tweak input parameters of patterns:

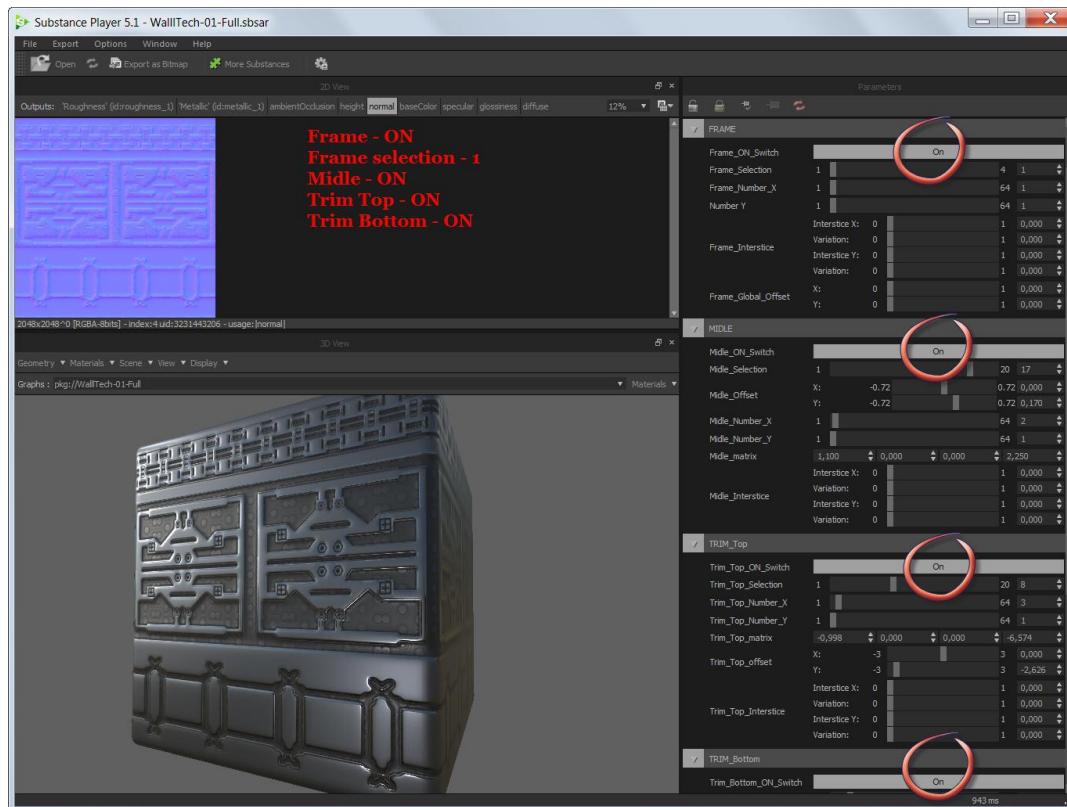
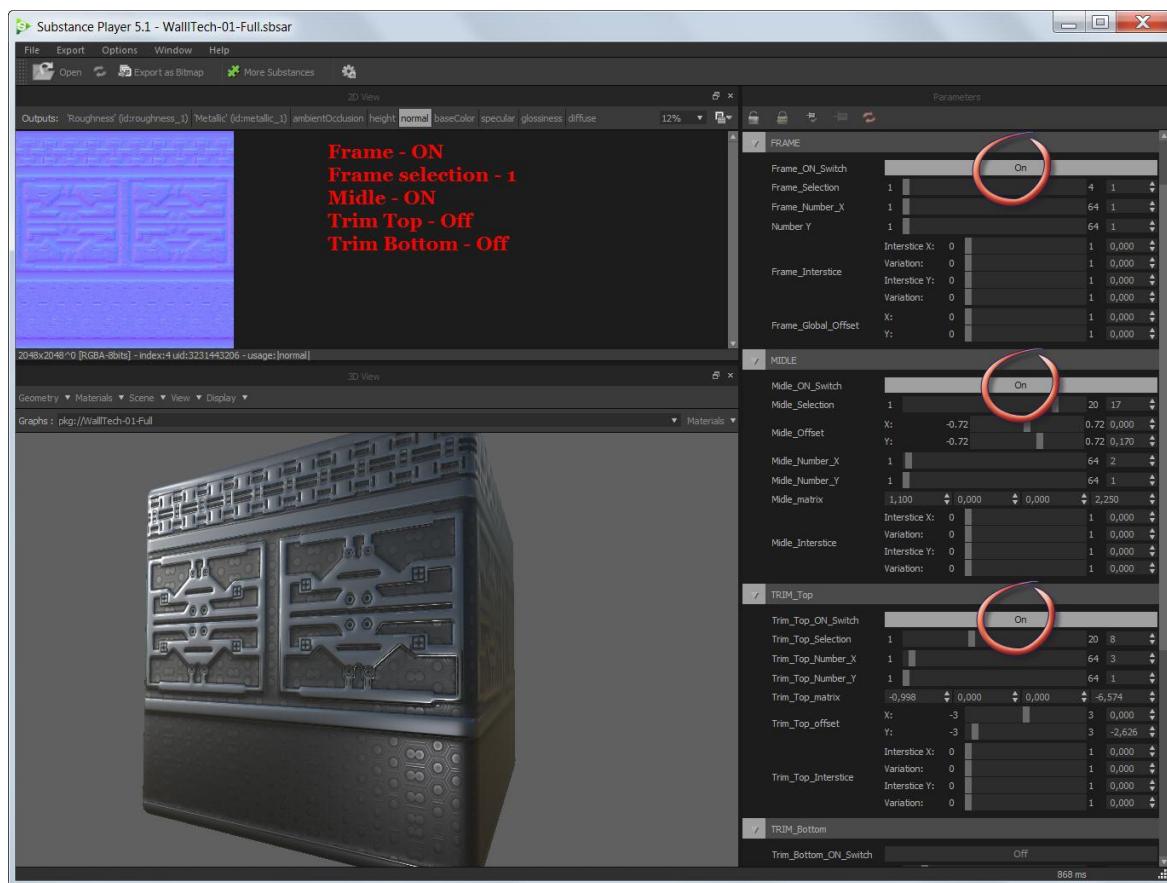
Patterns selection; Output Color ; Blend Mode; Offset; Matrix; Interstice; Number of tiles X,Y. Outputs: Diffuse, Base color, Specular, Normal, Roughness, Metallic, Height, Glossiness, Ambient Occlusion.

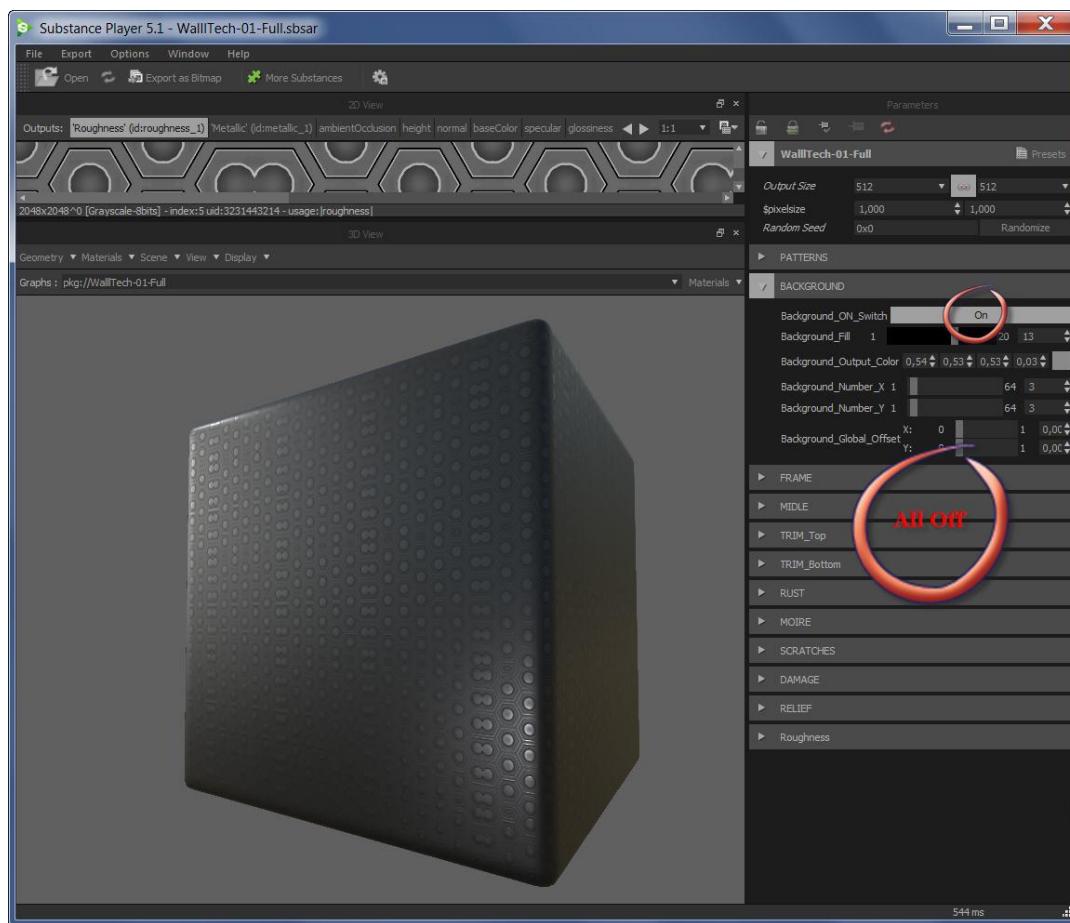
Plug & play: The Substance format is natively supported in applications such as Unity 5, Unreal Engine, Maya, 3DS Max.



All parts of the material, conditionally accepted, because the components of the material can be interchanged, and change the order of alternation.







Shown here - only the background is an active.

3. The basic components and settings.

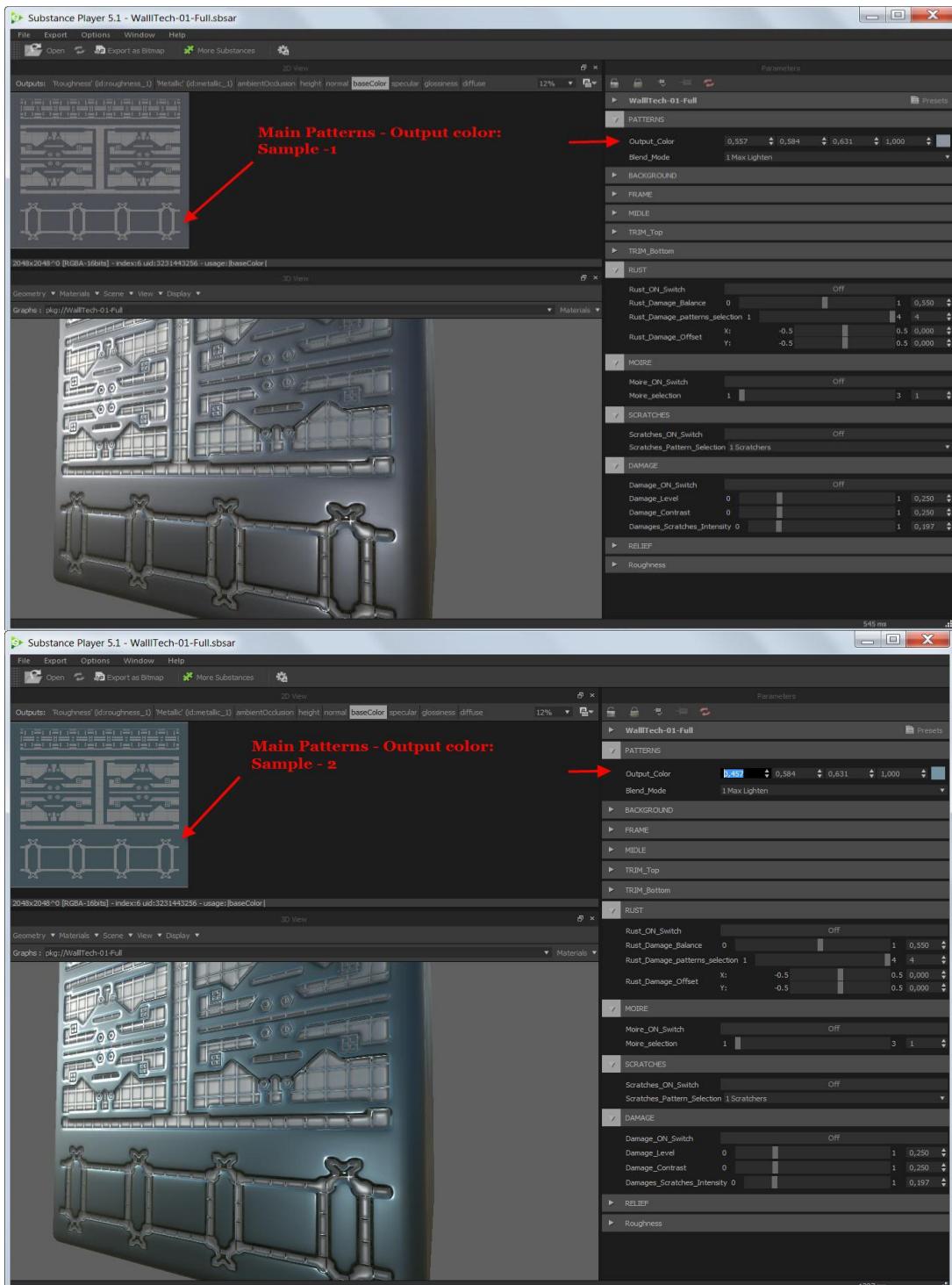
3.1 Patterns

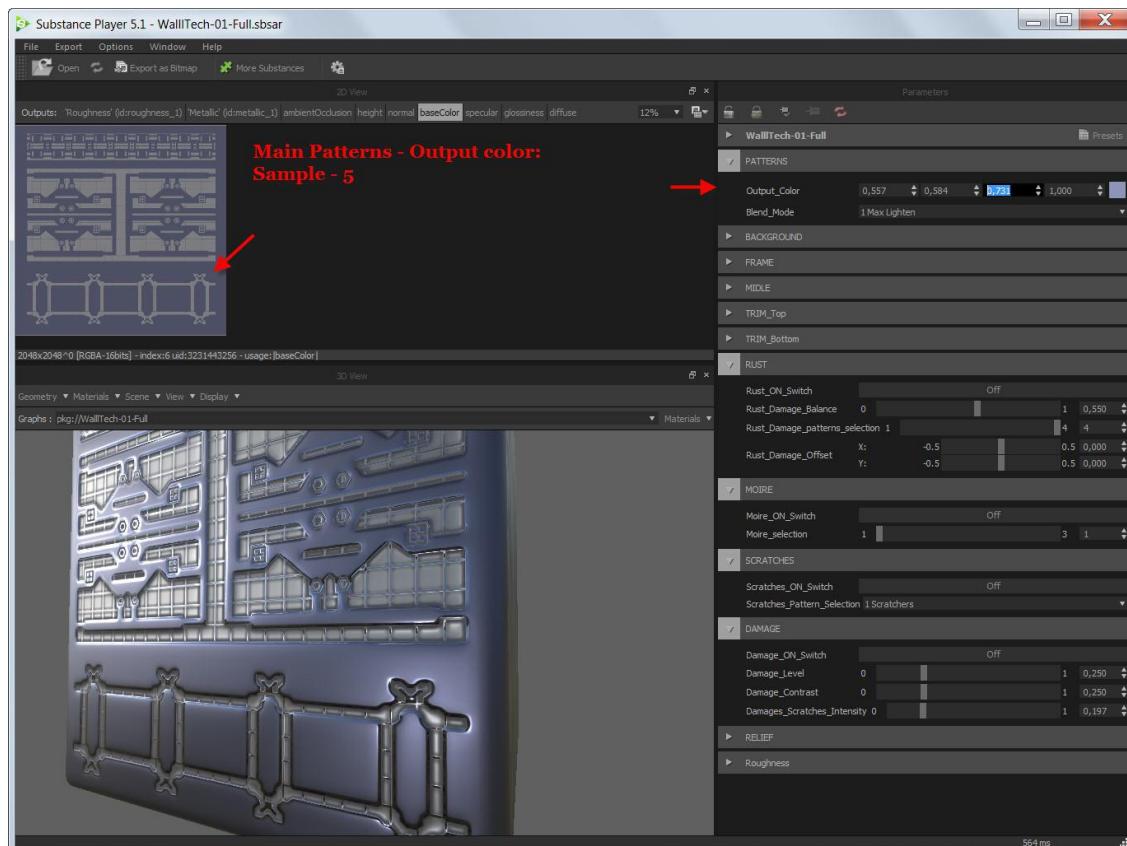
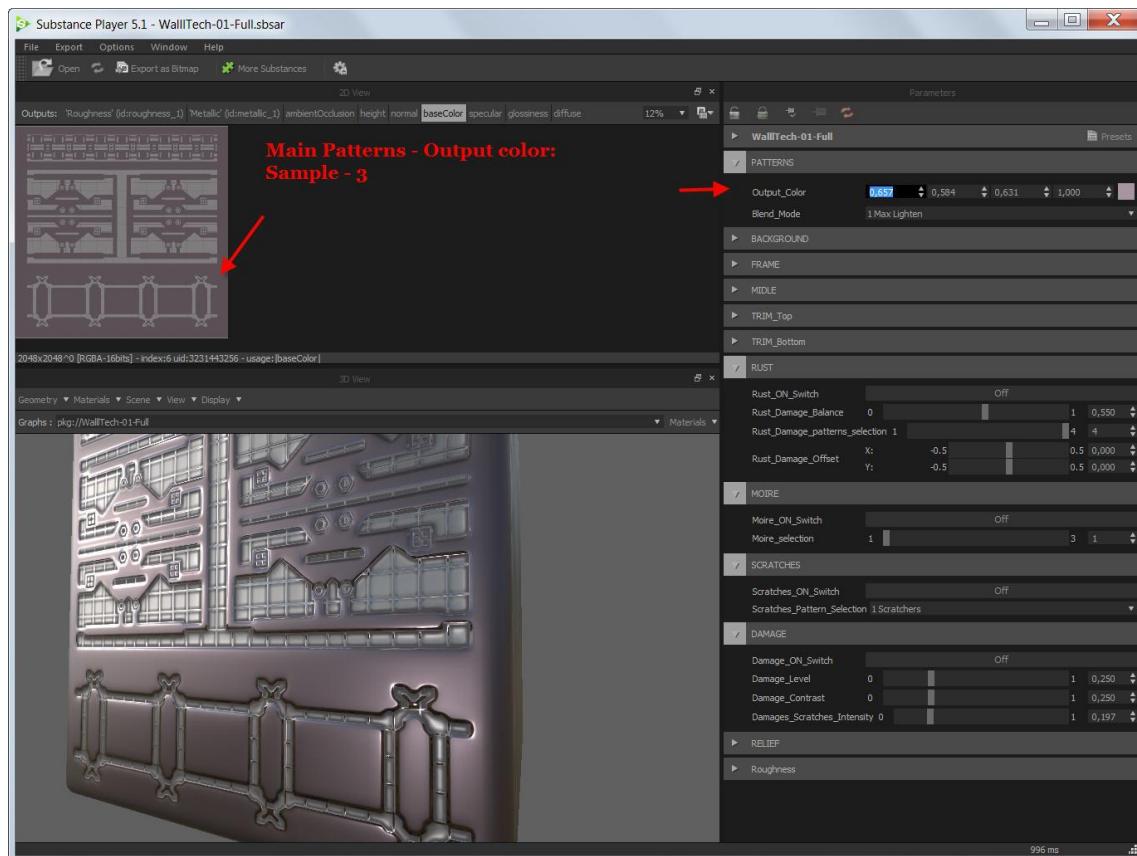
Group Patterns consists of two items: Output Color and Blend Mode

3.1.1 Output Color

This item allows you to tweak the base color and alpha channel of patterns.

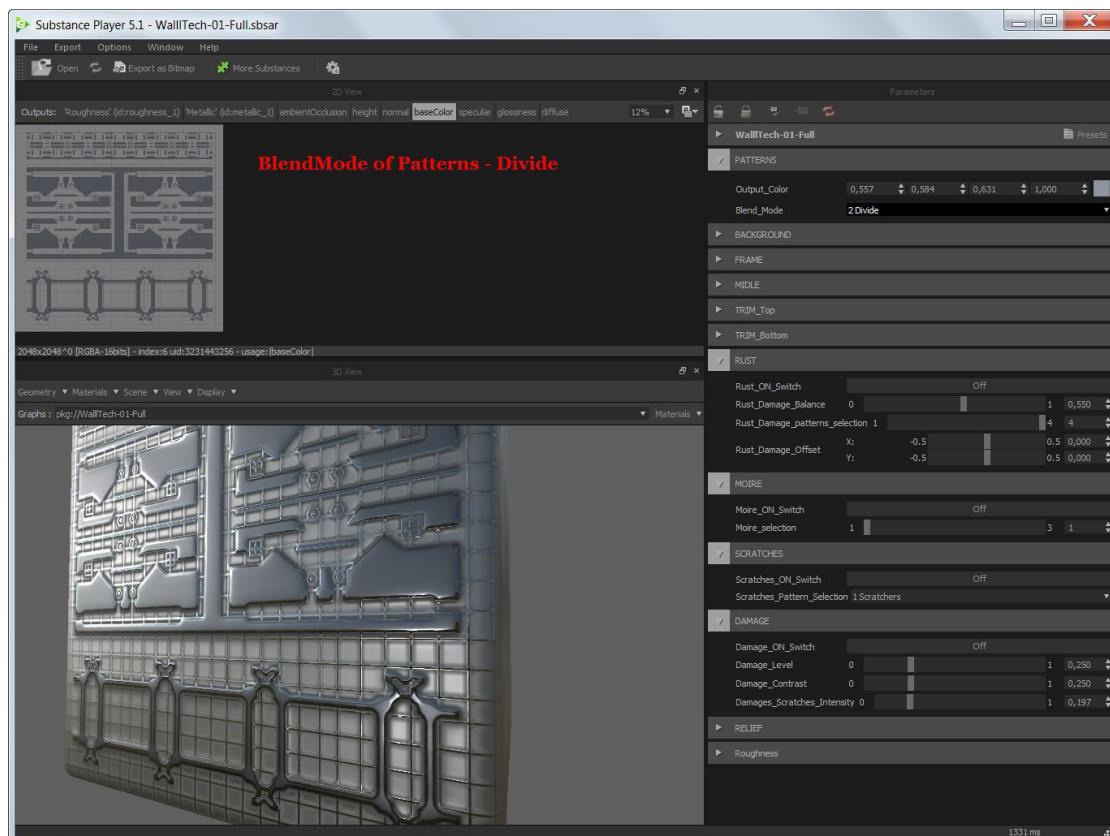
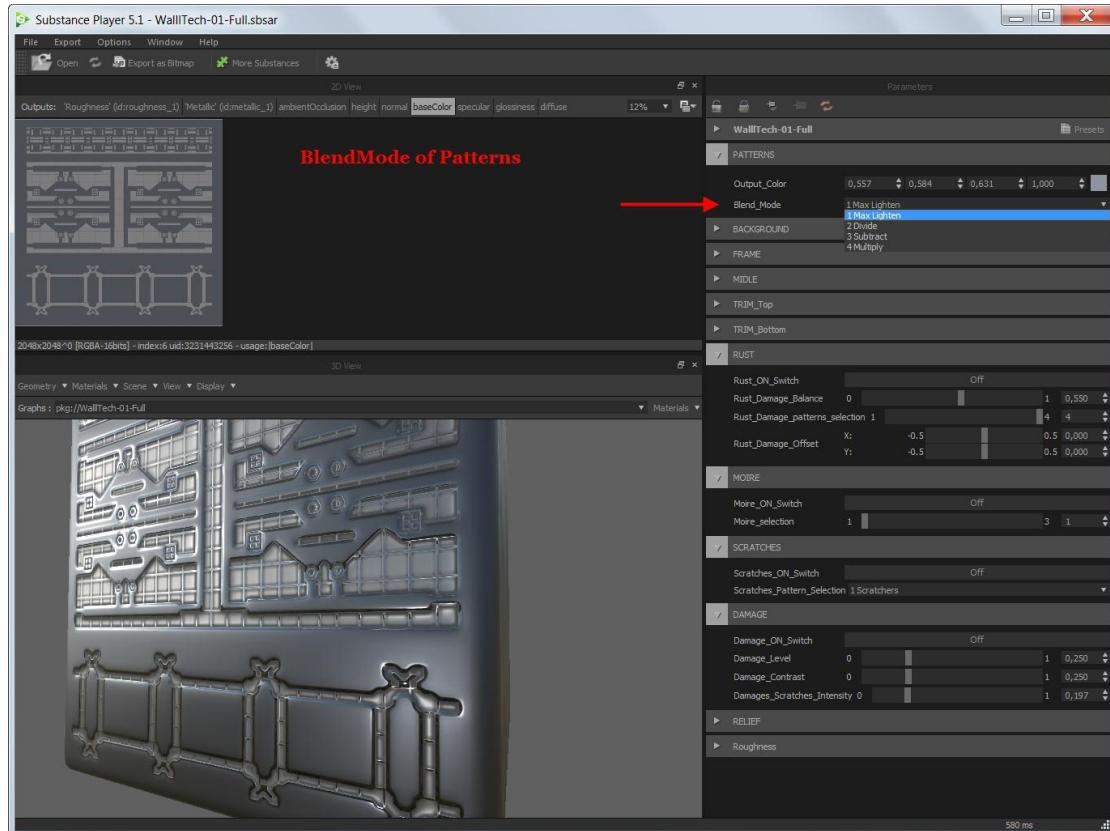
The following shows a few examples of the use of this setting:

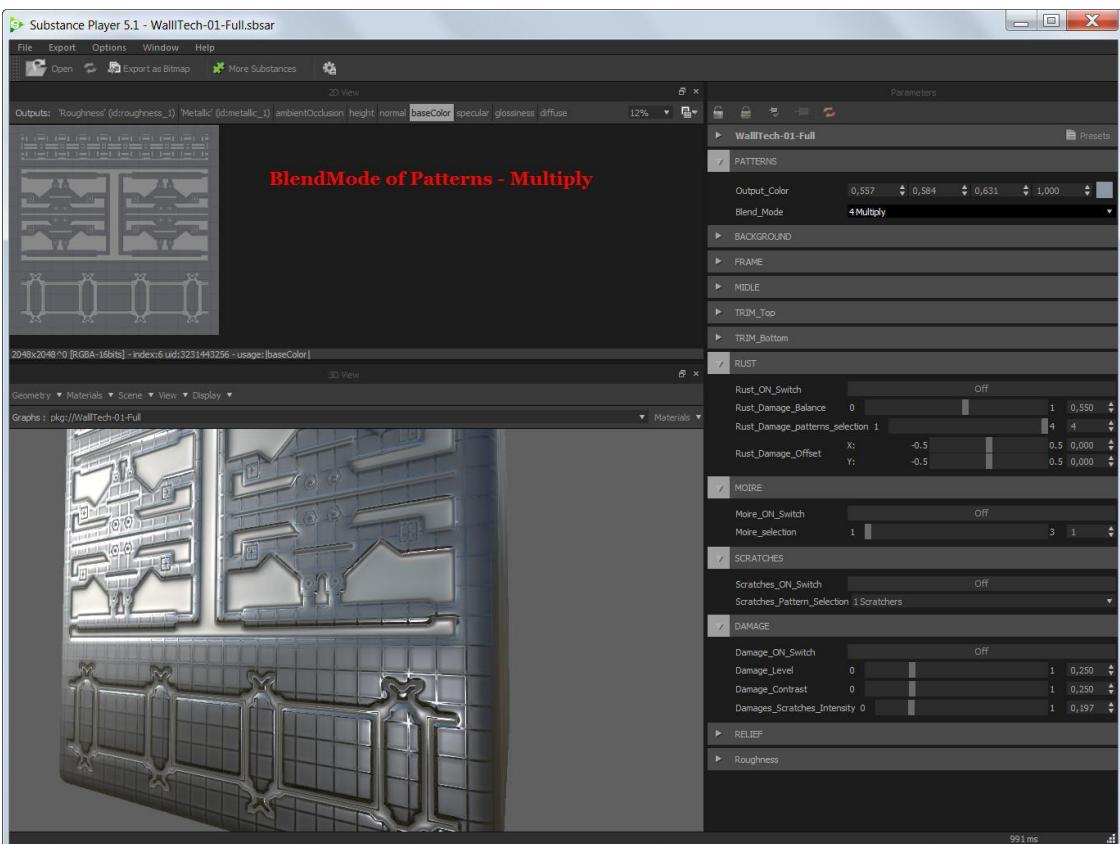
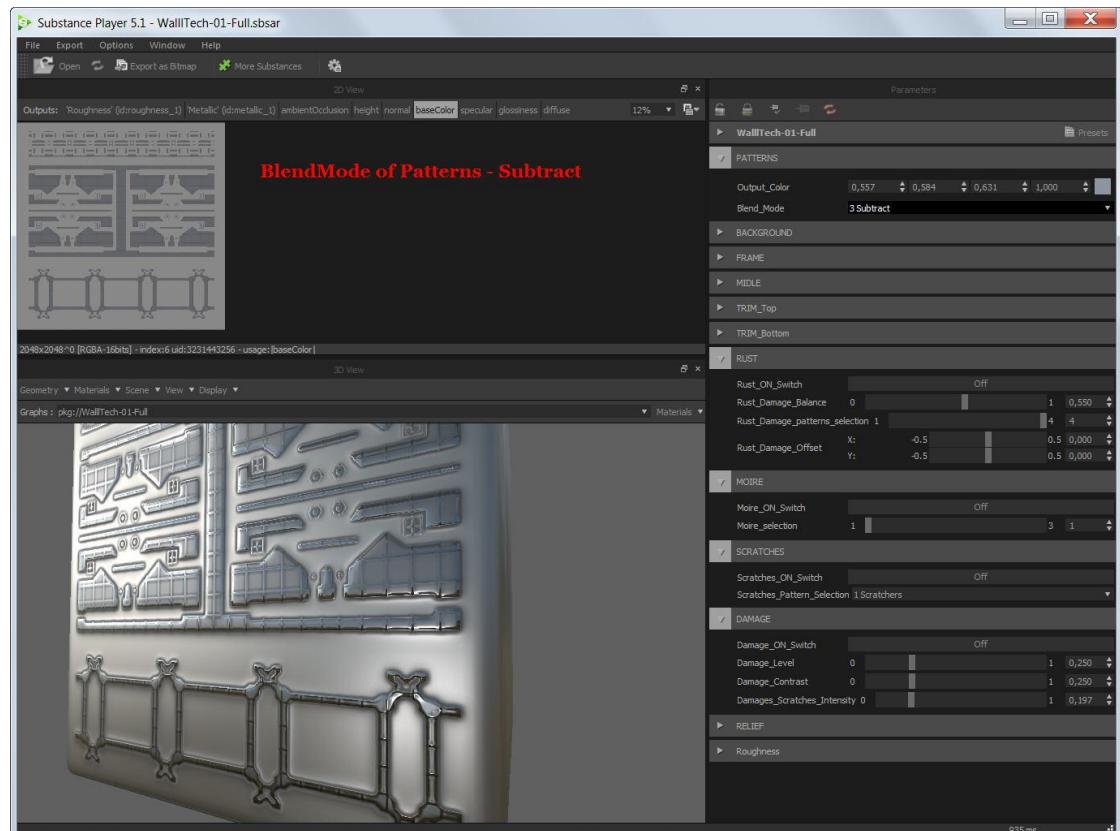




3.1.2 Blend Mode

This item allows you to tweak the blend mode of patterns.
Such as: Max Lighten, Divide, Subtract, Multiply.





3.2 Background

Group Patterns consists of six items:

On Switch: allows you to show or hide the object;

Fill: allows you to select patterns from 1th to 20th;

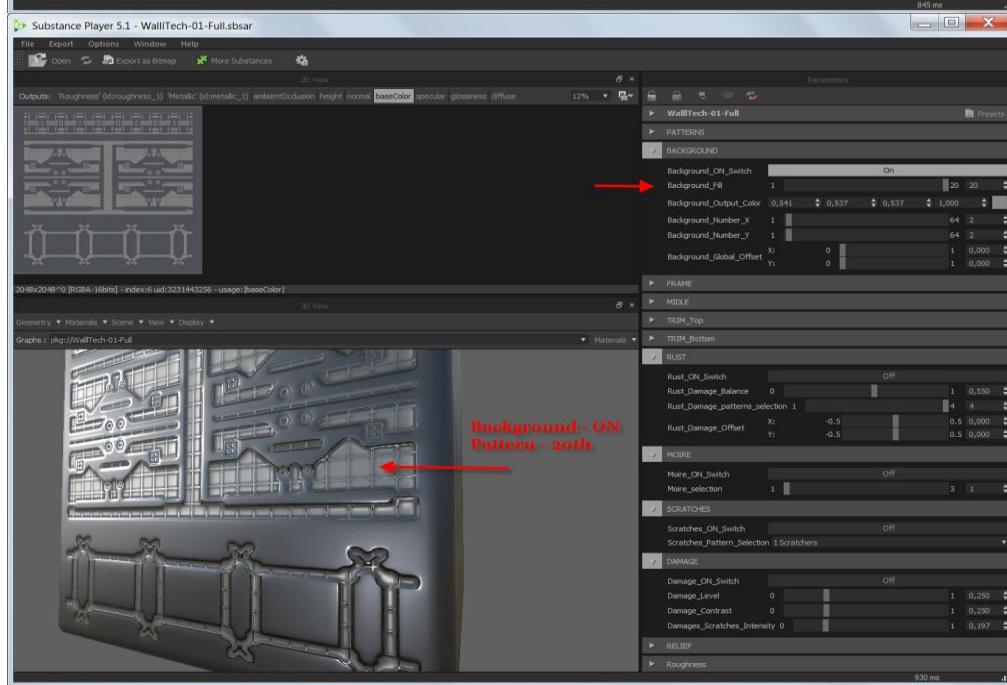
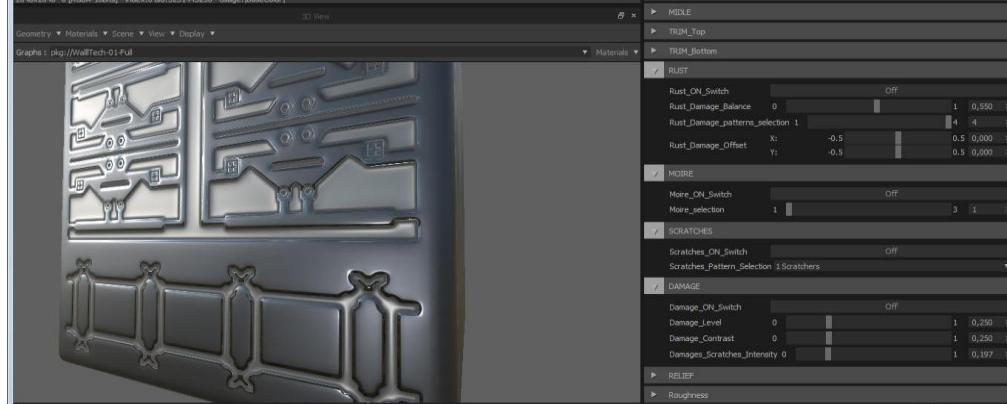
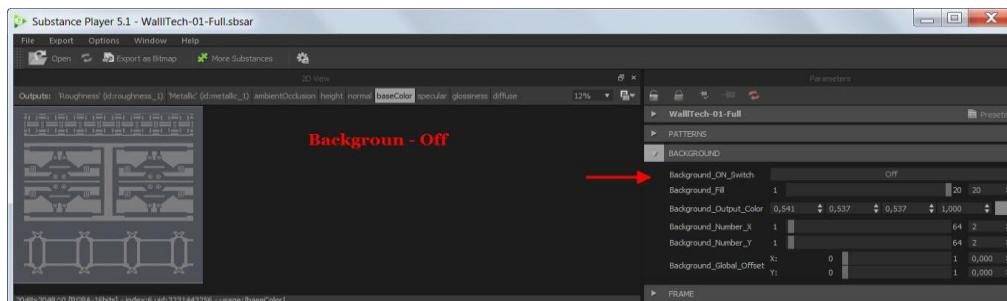
Output color: allows you to change the color of the current object;

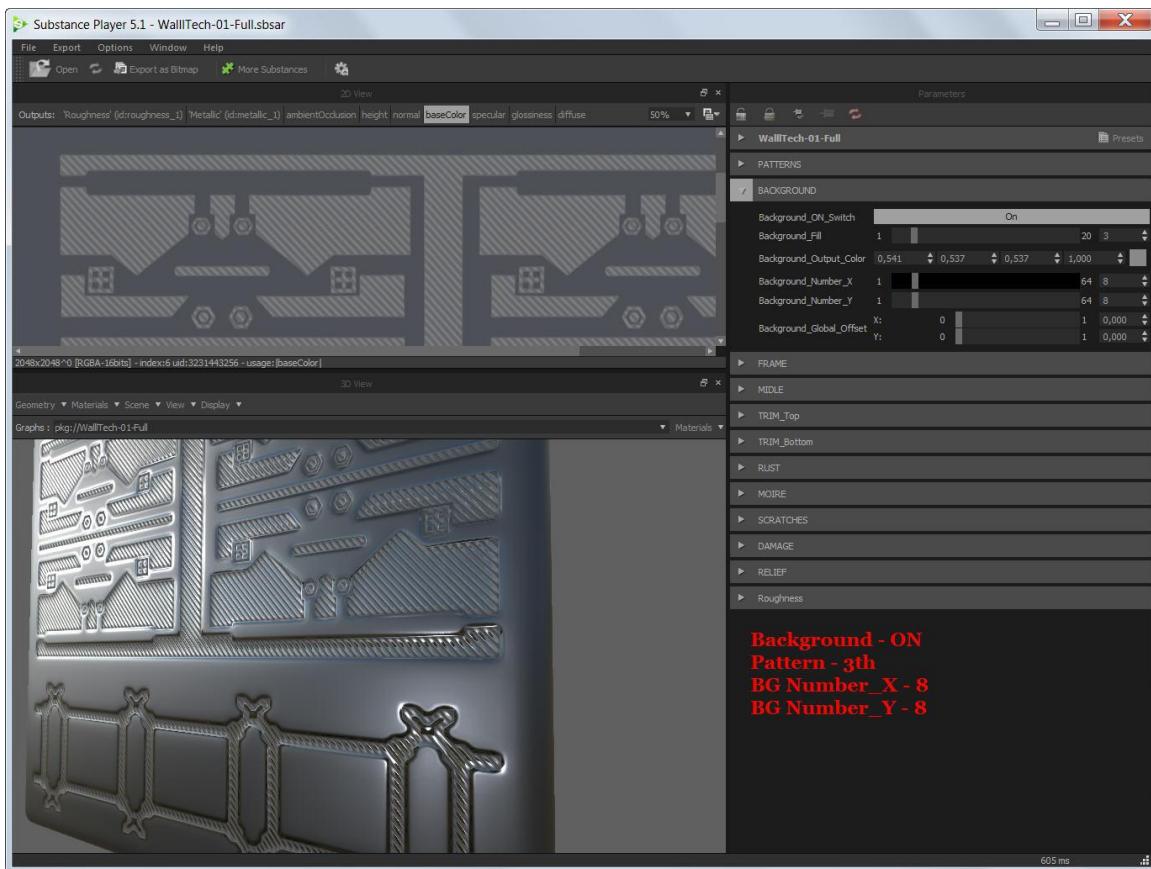
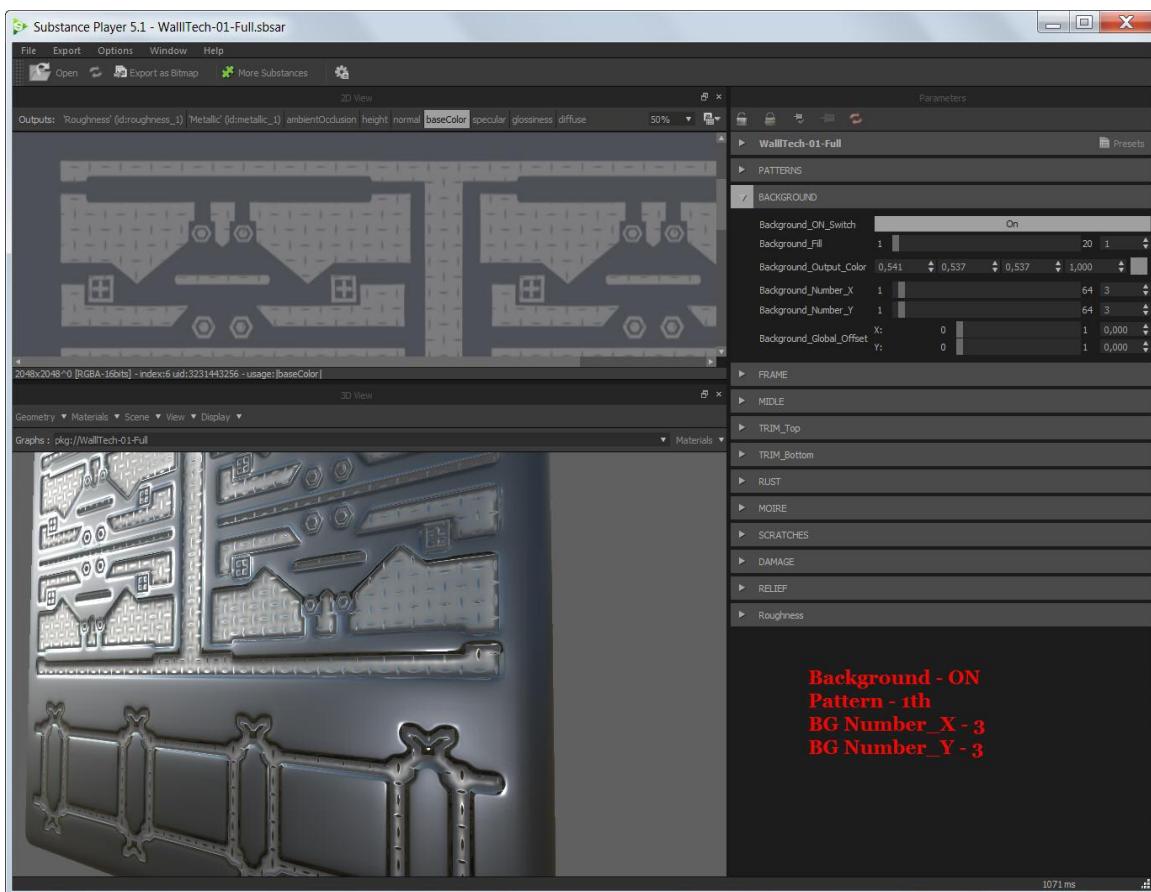
Number_X: allows you to change the number of tiles on the X axis;

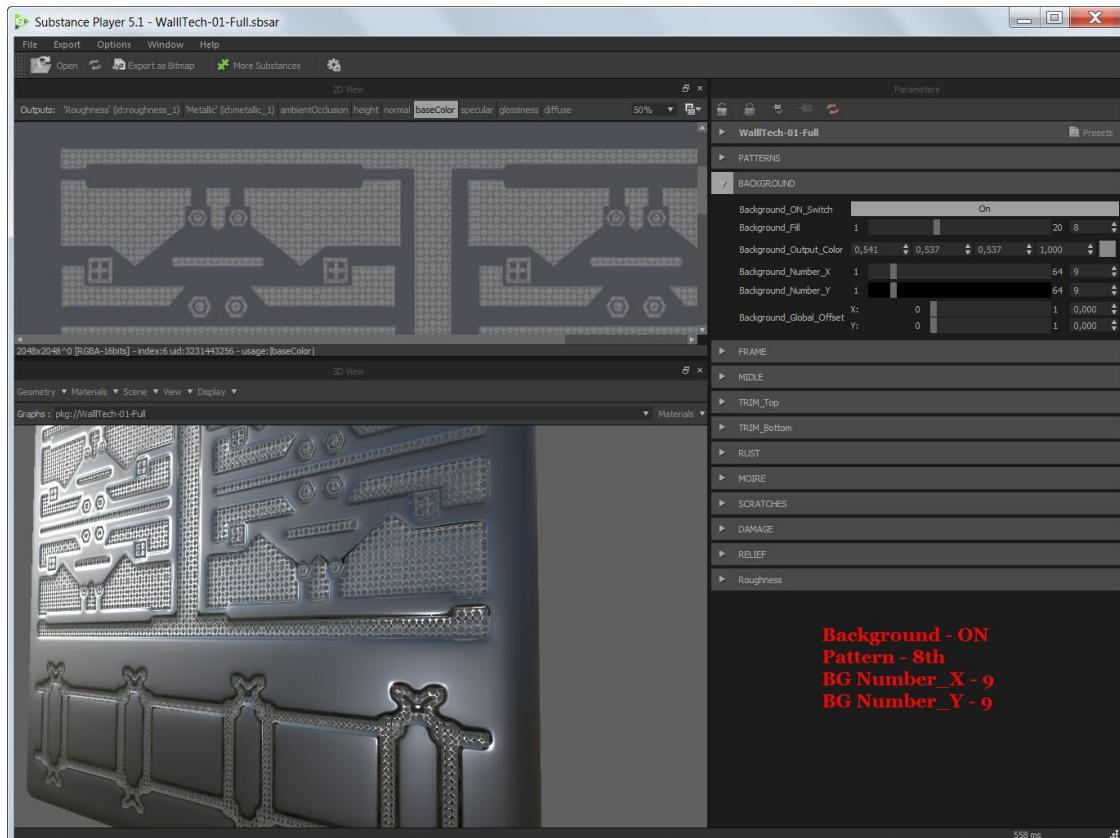
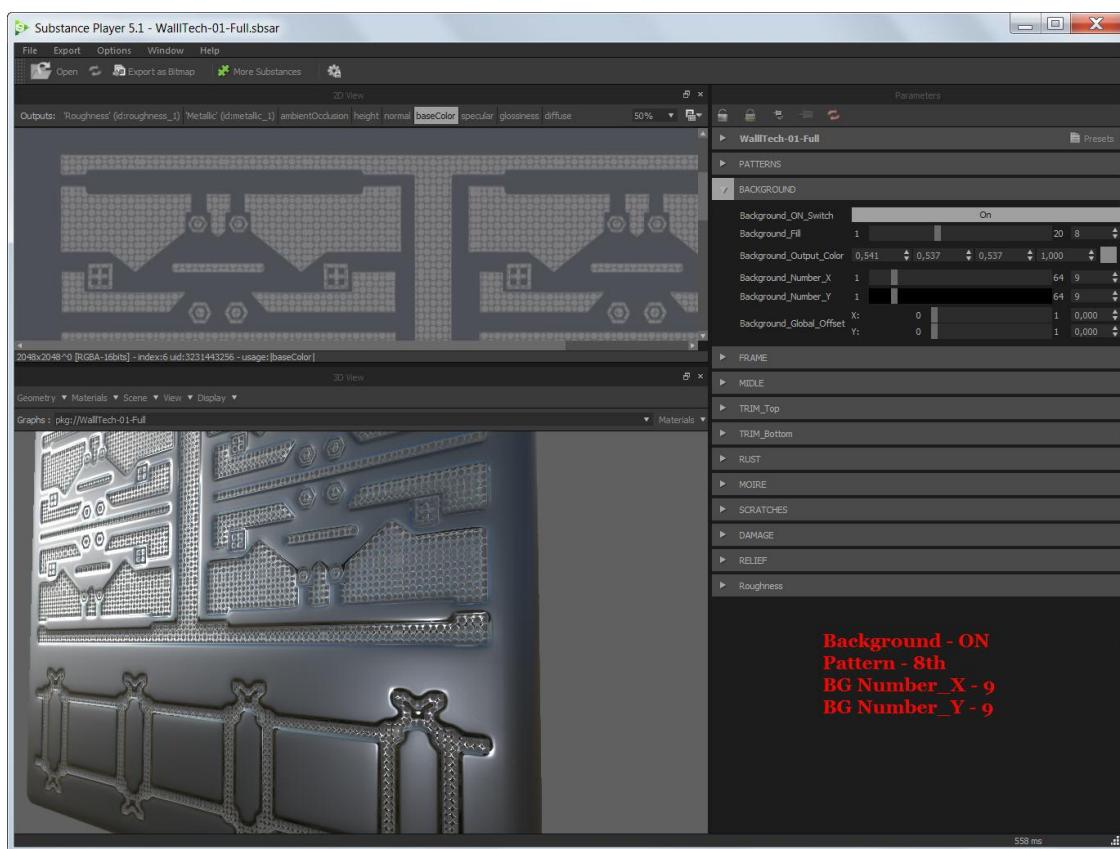
Number_Y: allows you to change the number of tiles on the Y axis;

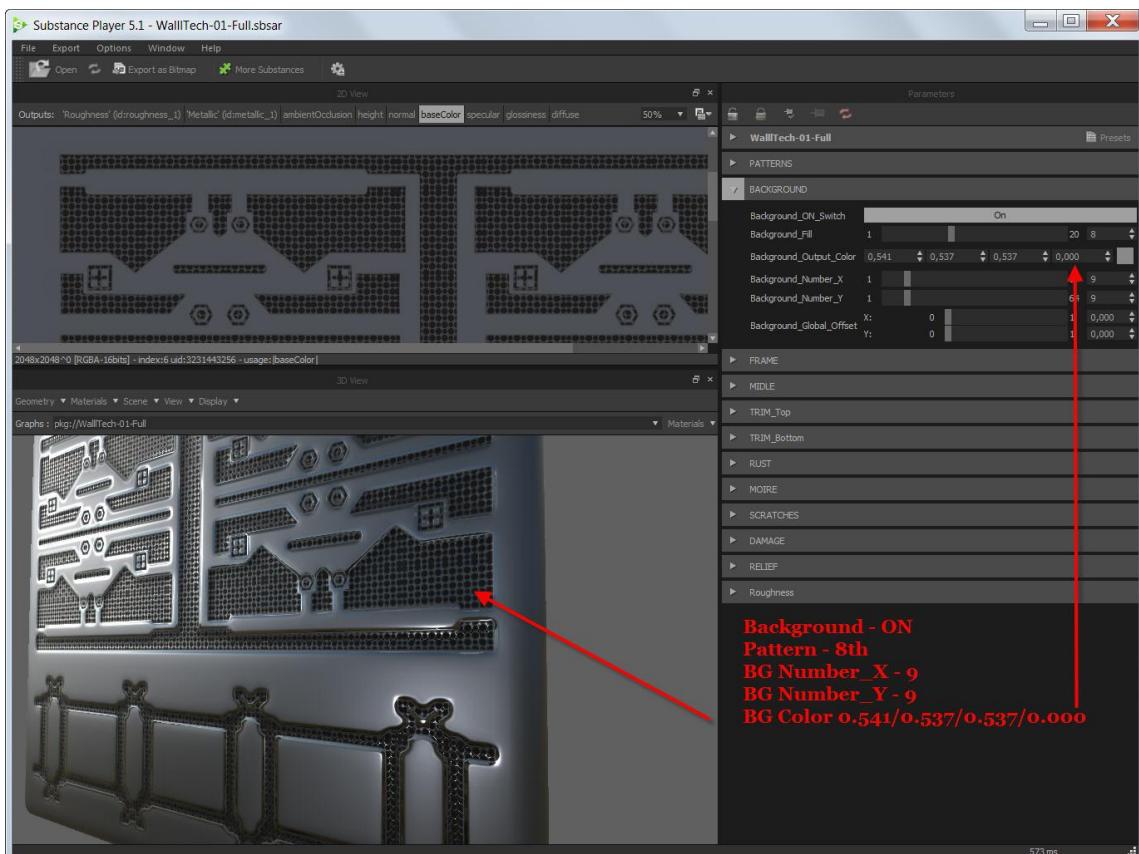
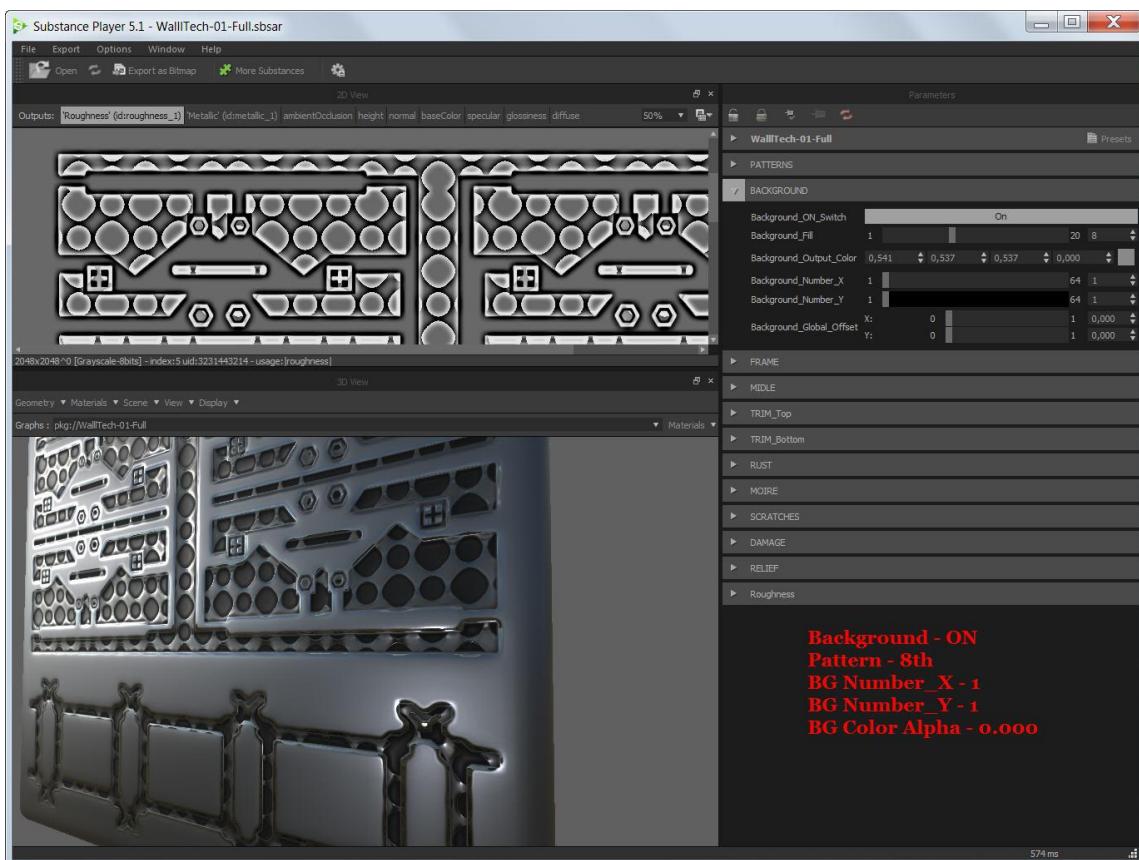
Global Offset X, Y: allows you to change the position of an object on the X, Y axis;

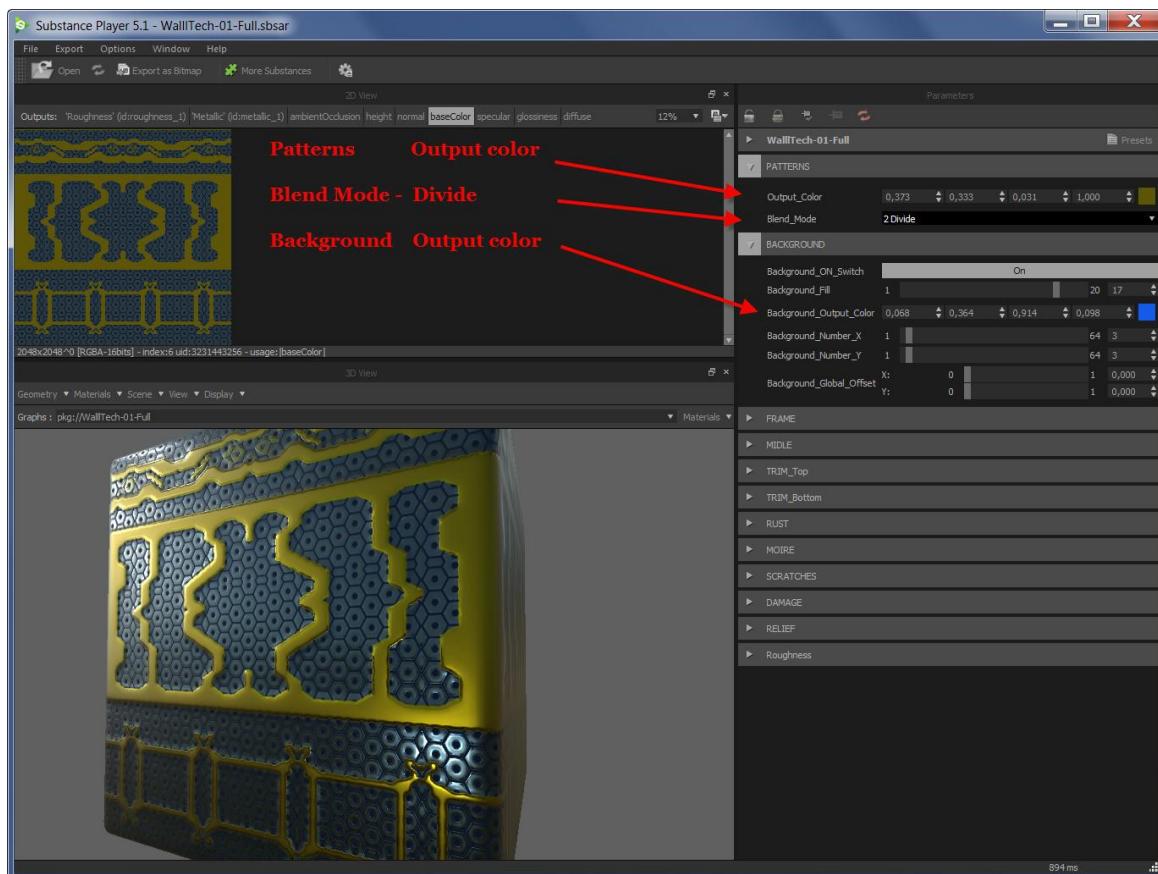
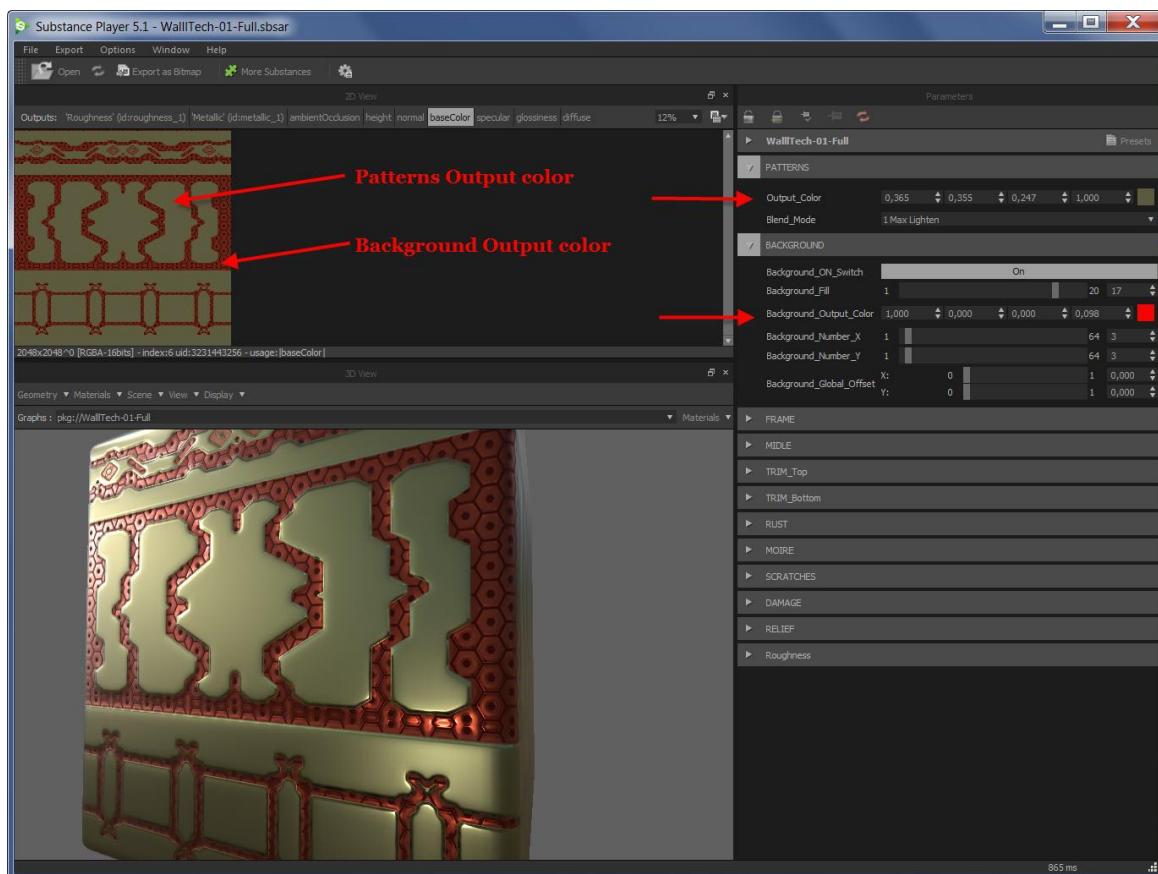
We will show some examples:

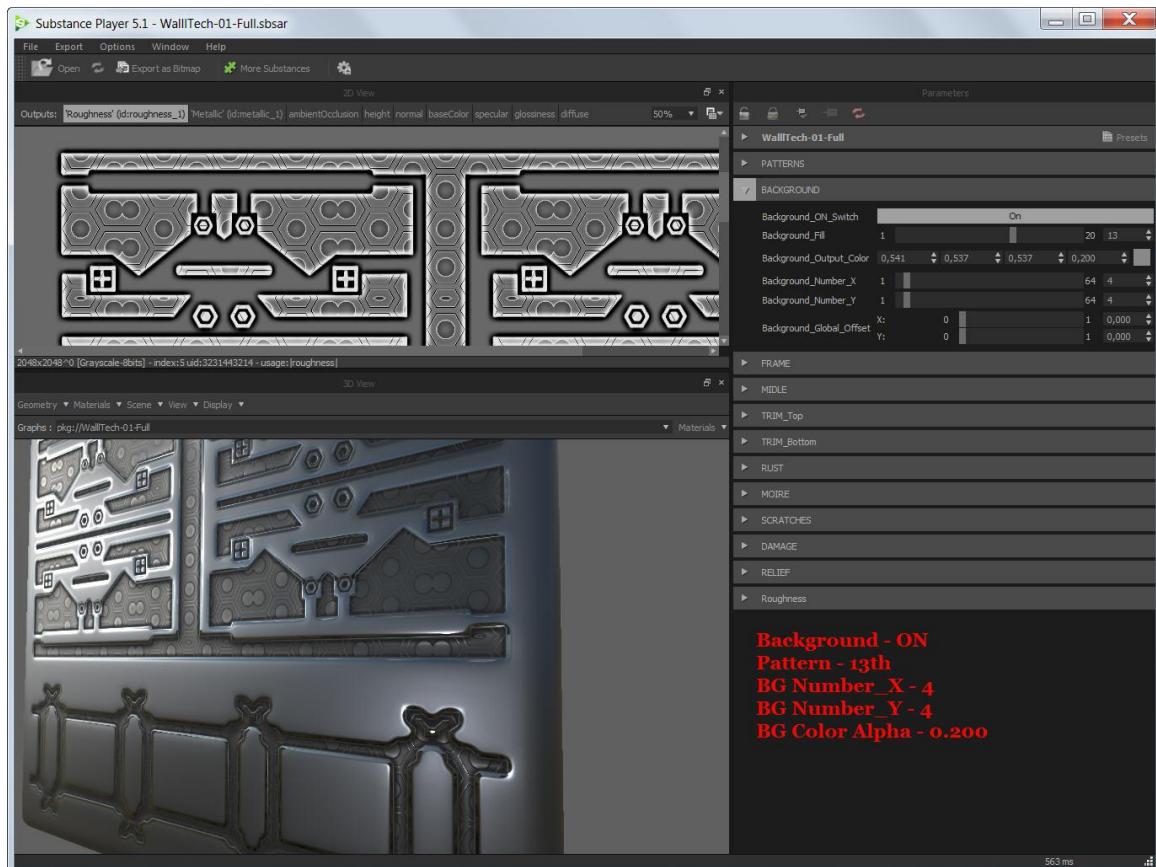
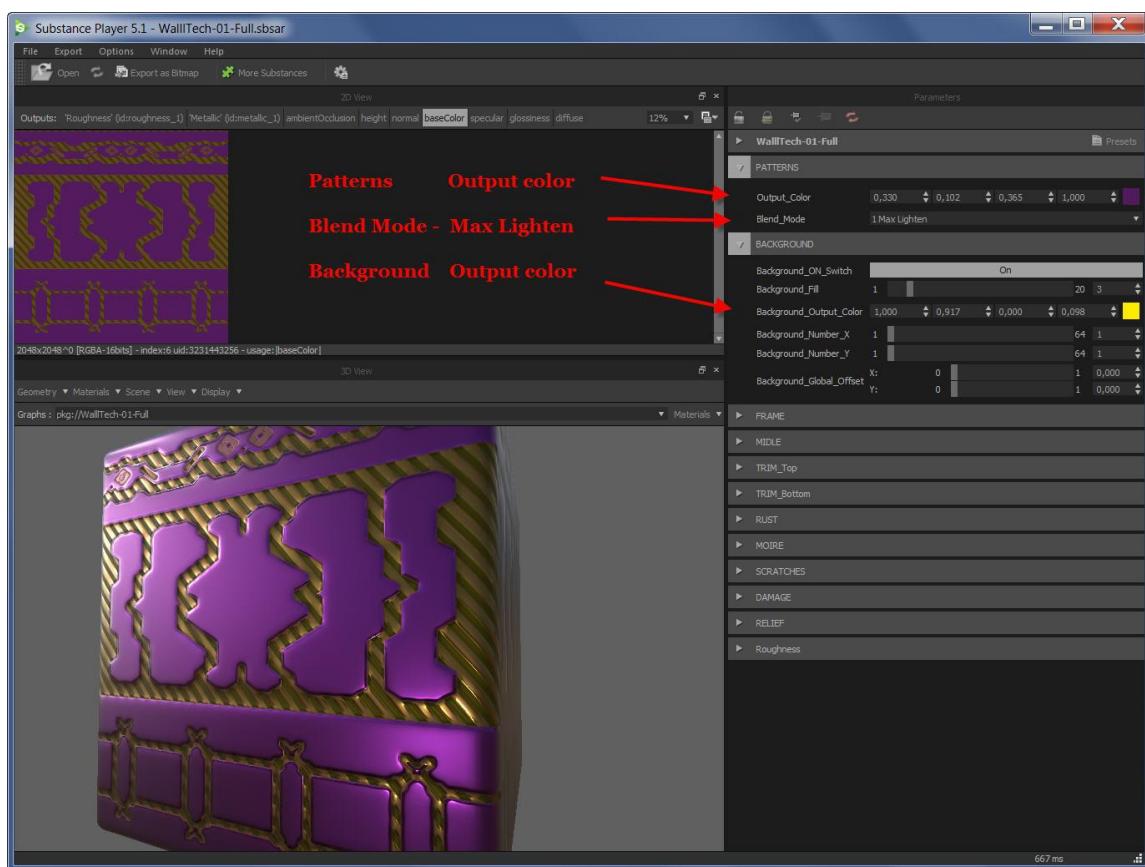












3.3 Frame

Group Frame consists of six items:

On Switch: allows you to show or hide the object;

Selection: allows you to select patterns from 1th to 20th ;

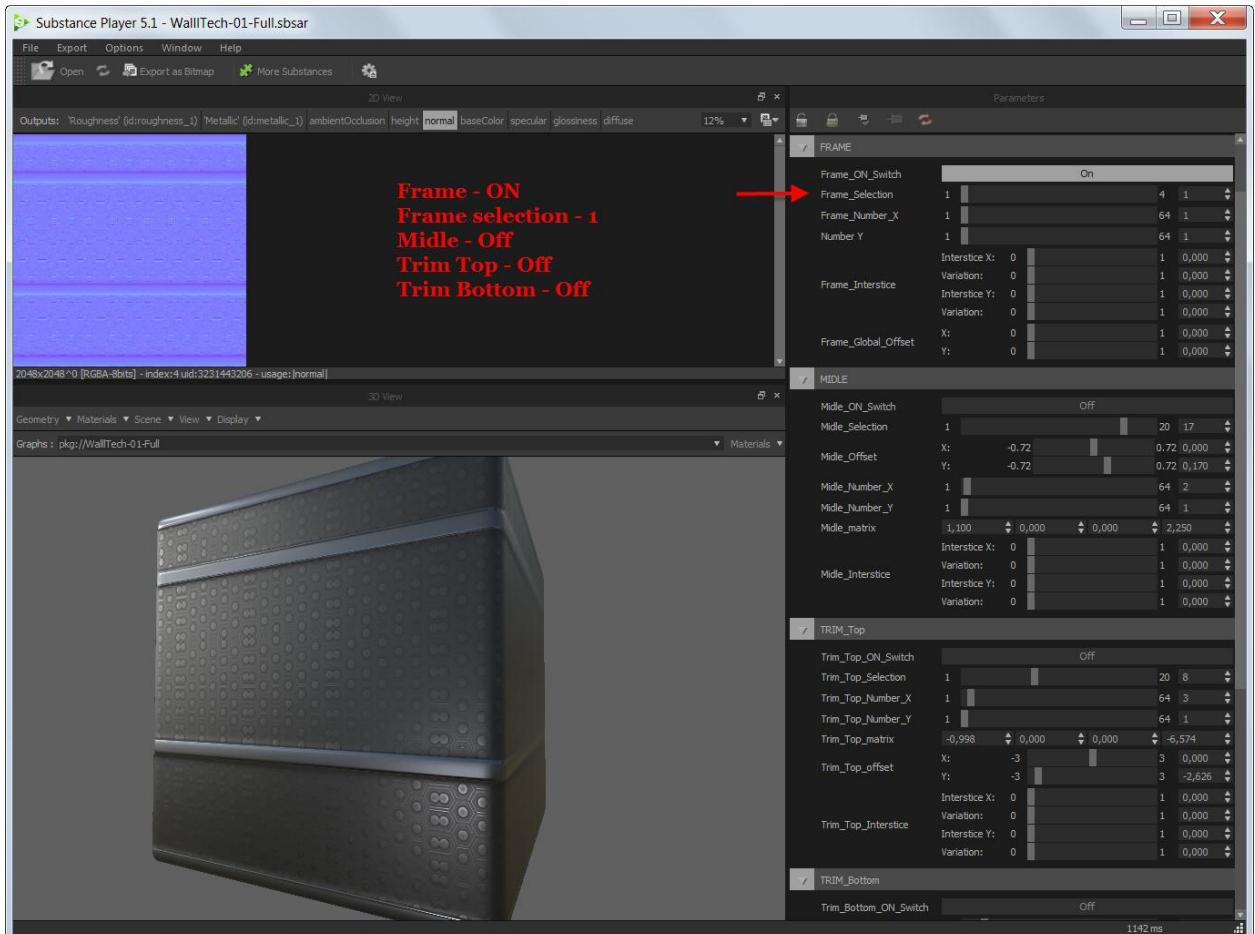
Number_X: allows you to change the number of tiles on the X axis;

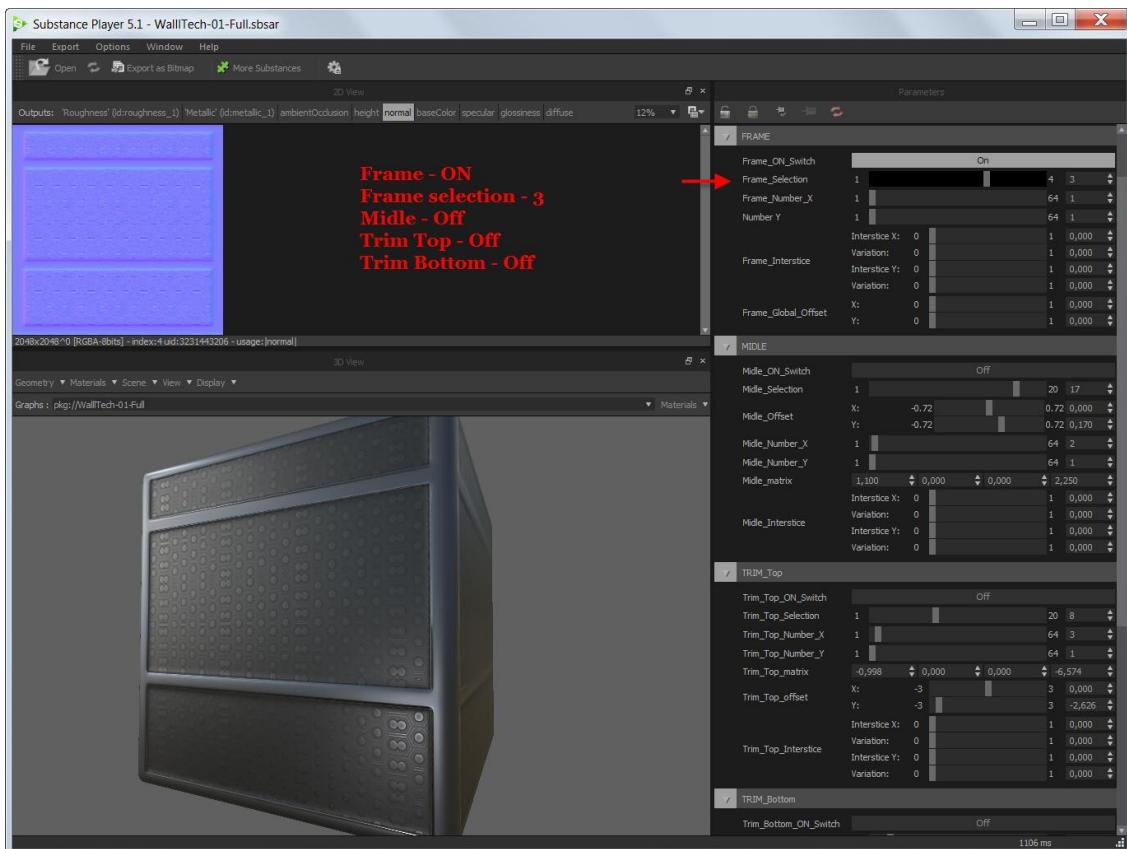
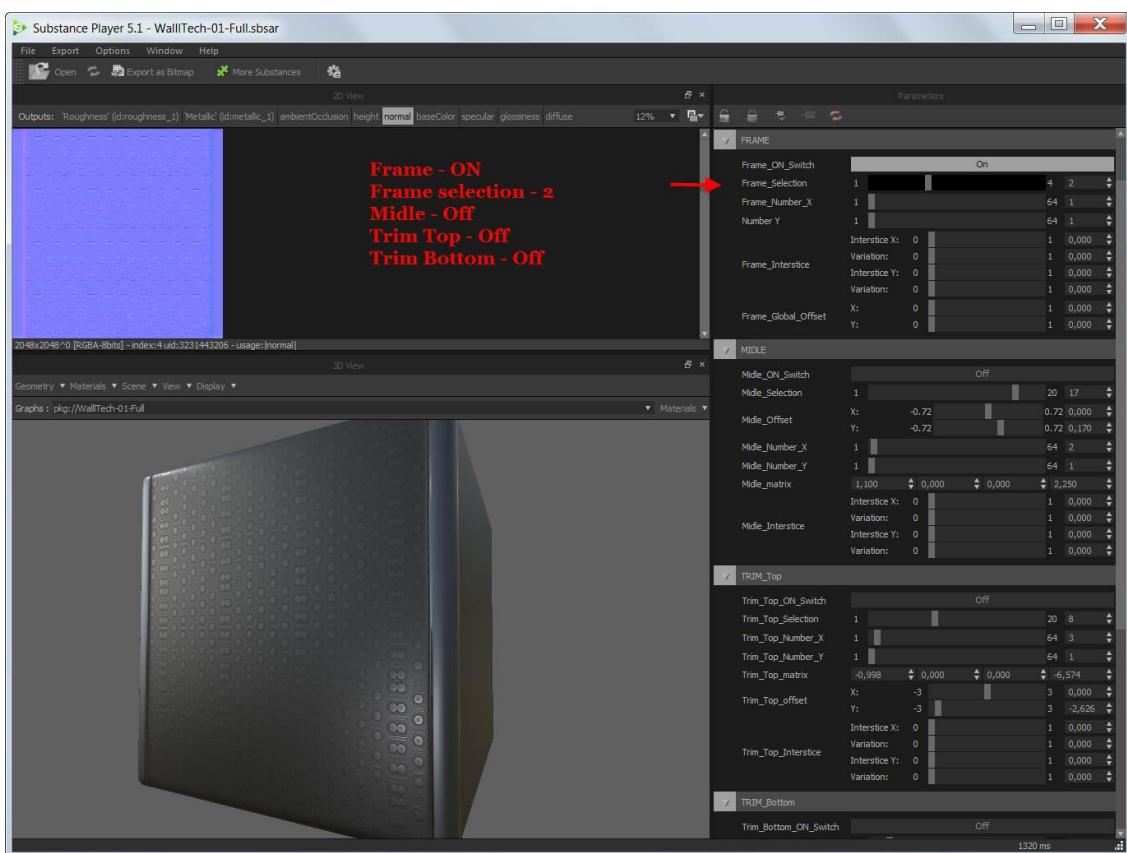
Number_Y: allows you to change the number of tiles on the Y axis;

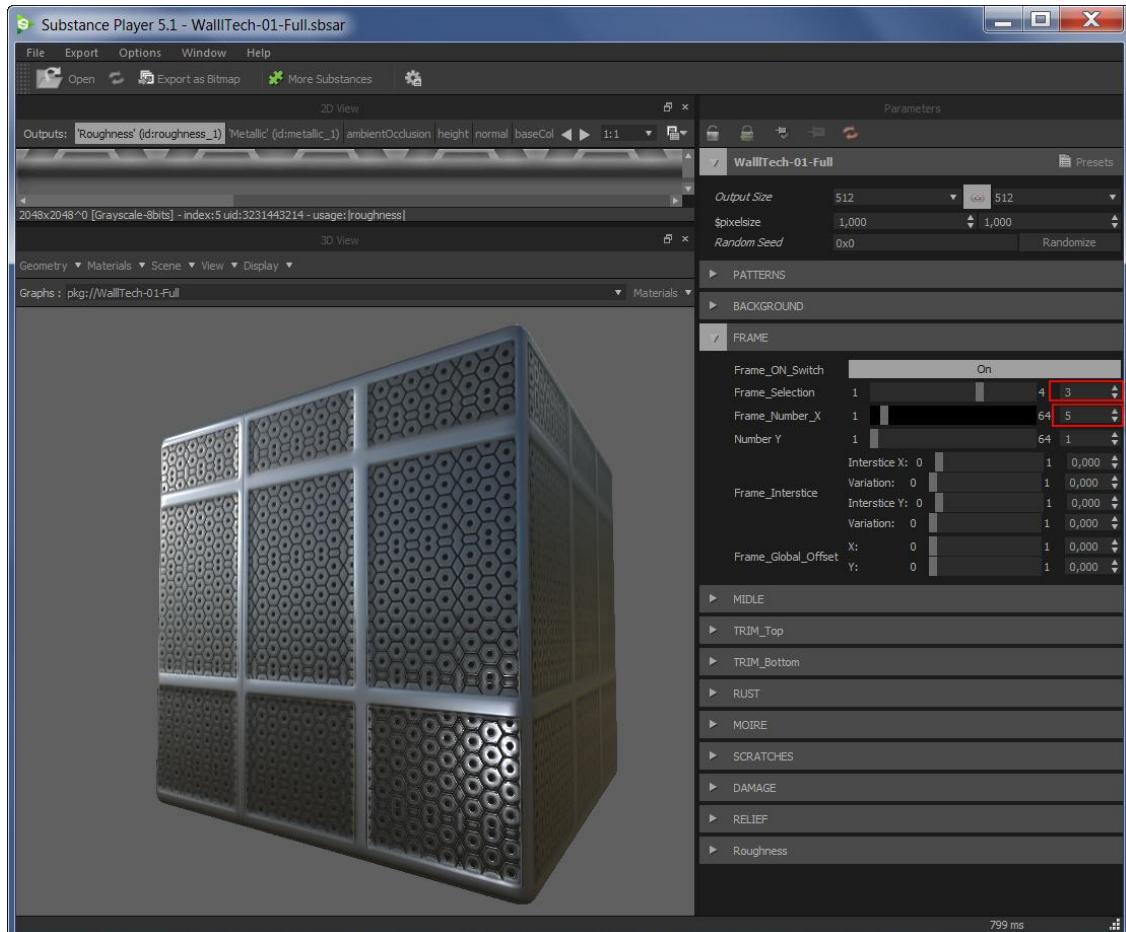
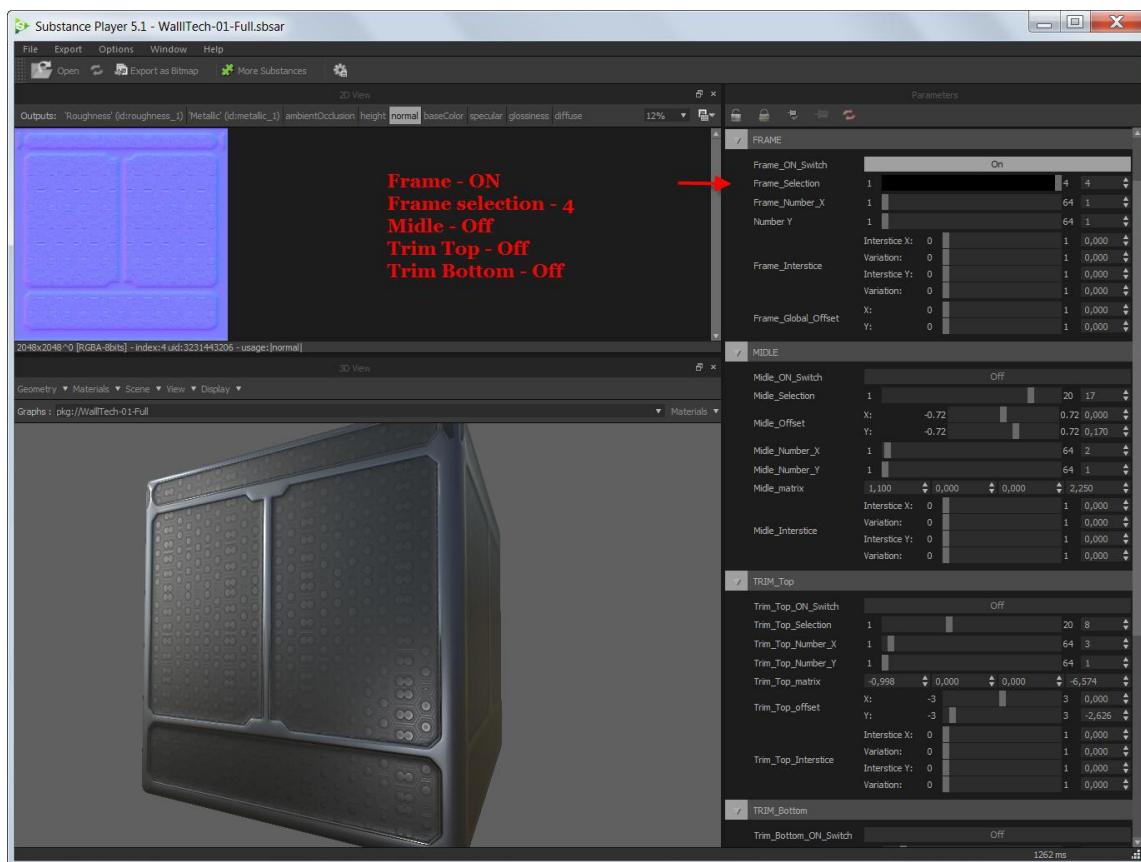
Interstice_X,Y: allows you to change the Interstice between tiles on the X,Y axis;

Global Offset X, Y: allows you to change the position of an object on the X, Y axis;

The following shows a few examples of the use of this setting:







You can set the number of frames from 1 to 64.

3.4 Trim Top; Middle; Trim Bottom

Each of these groups contains at 7 items:

On Switch: allows you to show or hide the object;

Selection: allows you to select patterns from 1th to 20th ;

Number_X: allows you to change the number of tiles on the X axis;

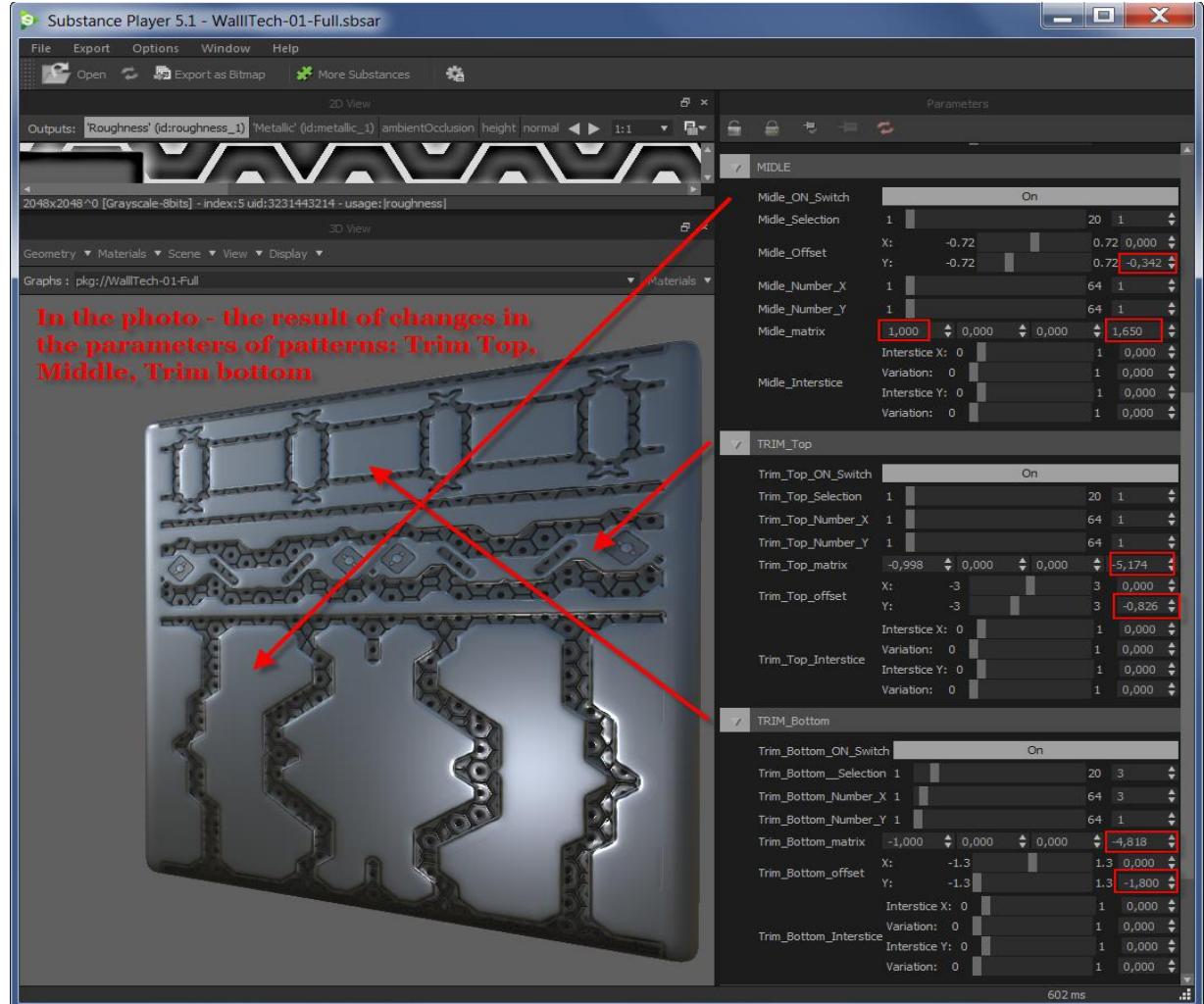
Number_Y: allows you to change the number of tiles on the Y axis;

Offset : allows you to change the position of an object on the X, Y axis;

Interstice X,Y: allows you to change the Interstice between tiles on the X,Y axis;

Global Offset X, Y: allows you to change the position of an object on the X, Y axis;

You can combine the availability, location and kind of Patterns:



4. Features of texture

Procedural material allows you to create on the surface of the real damage in real-time.

4.1 Rust

Group Rust consists of 4 items:

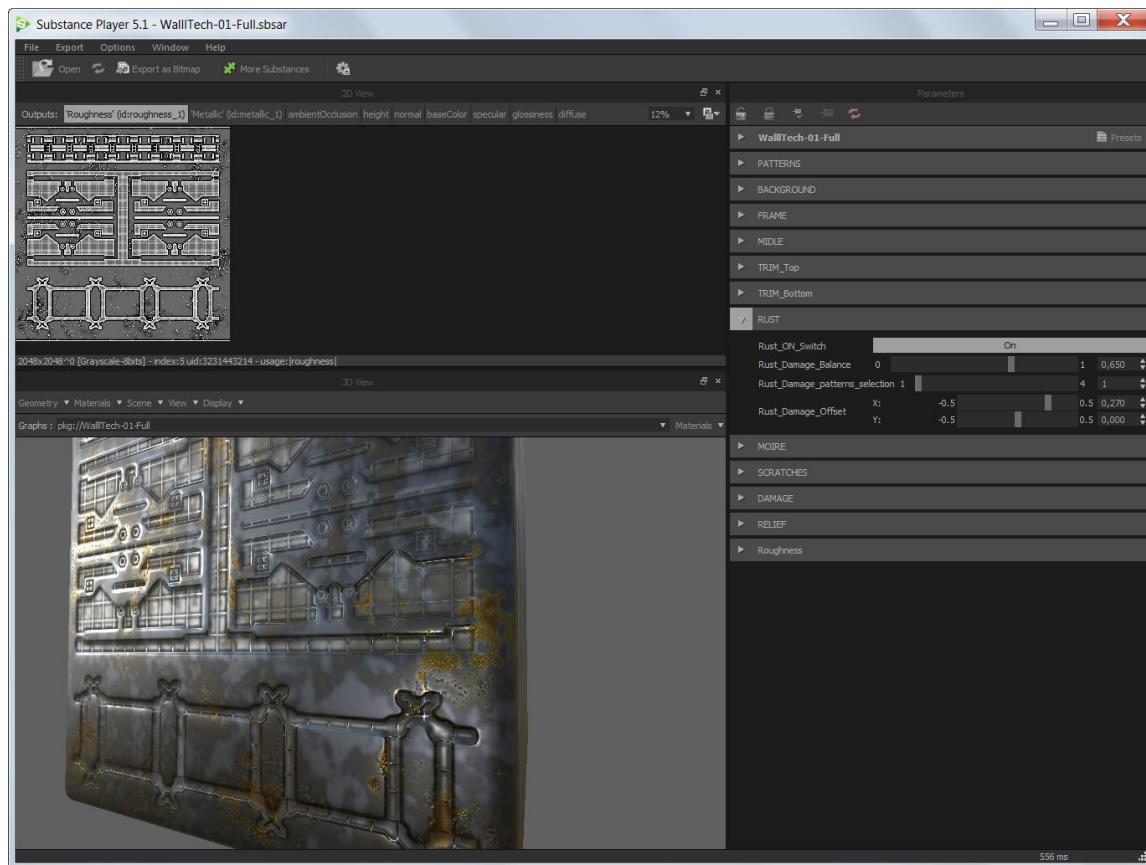
On Switch: allows you to show or hide the object;

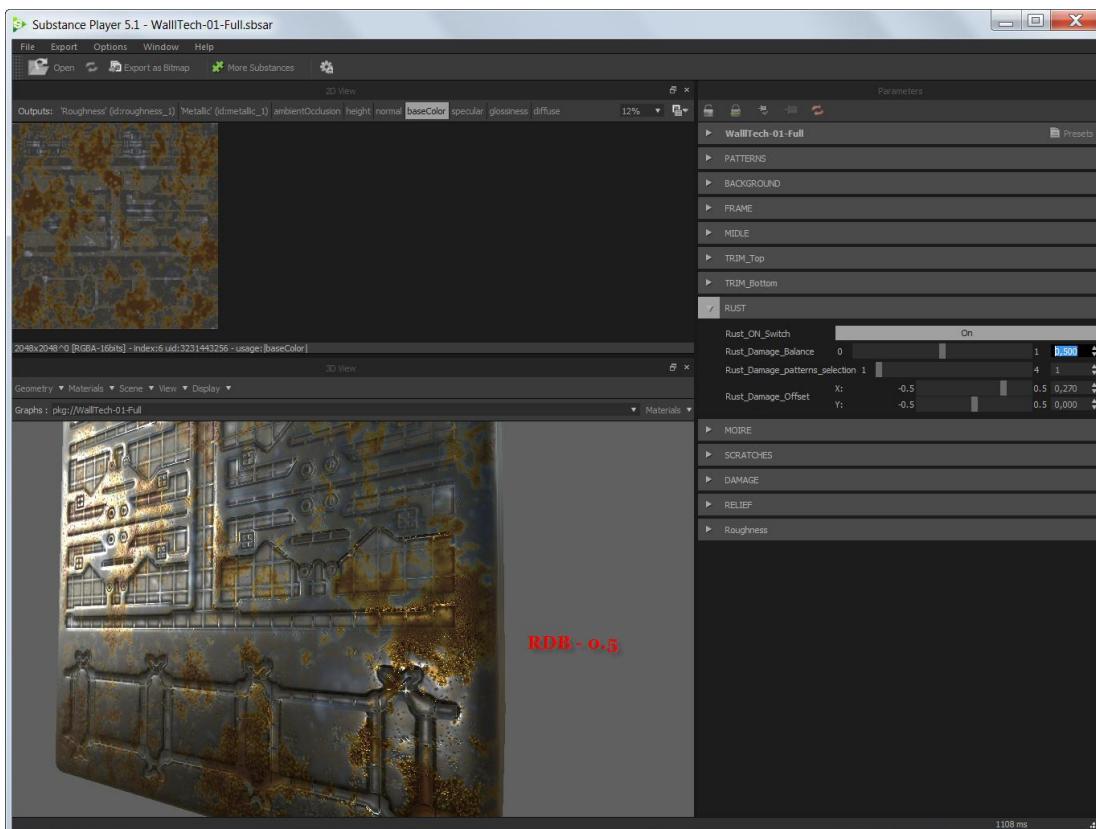
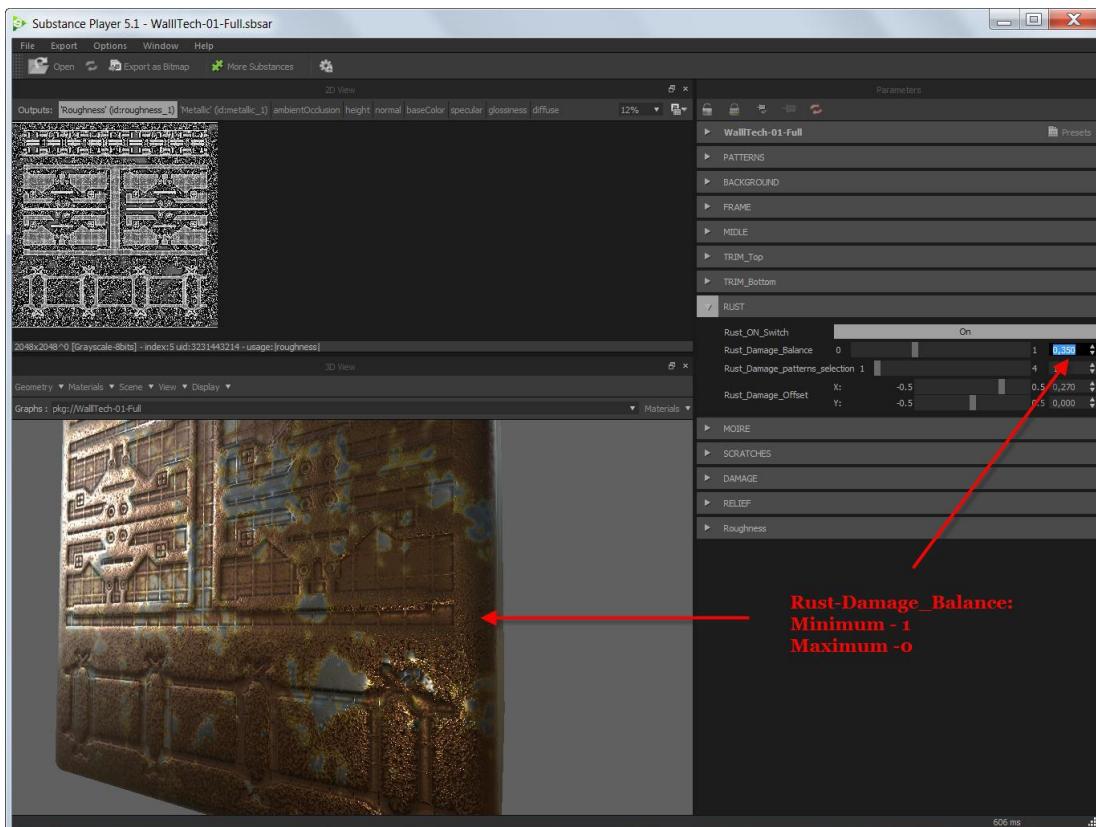
Rust_Damage_Balance: allows you to choose the level of damage;

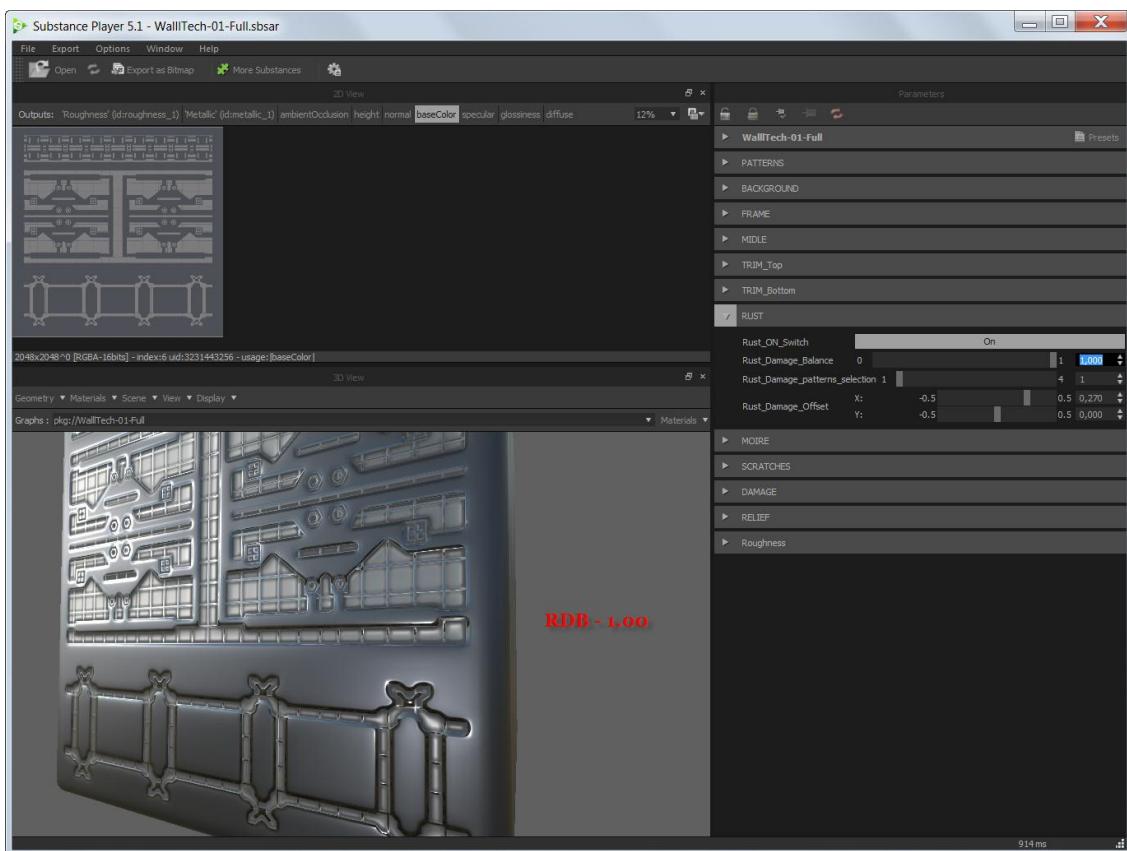
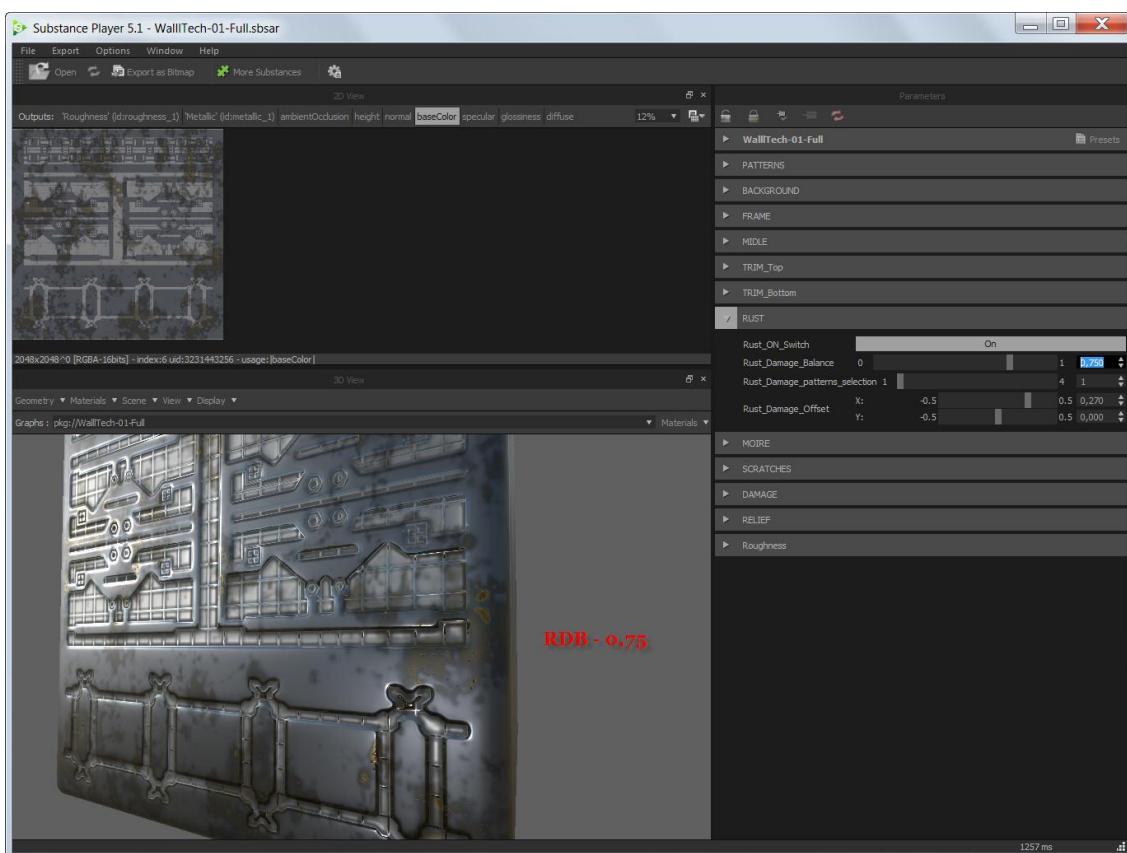
Rust_Damage_patterns_selection: allows you to choose the appearance of damage;

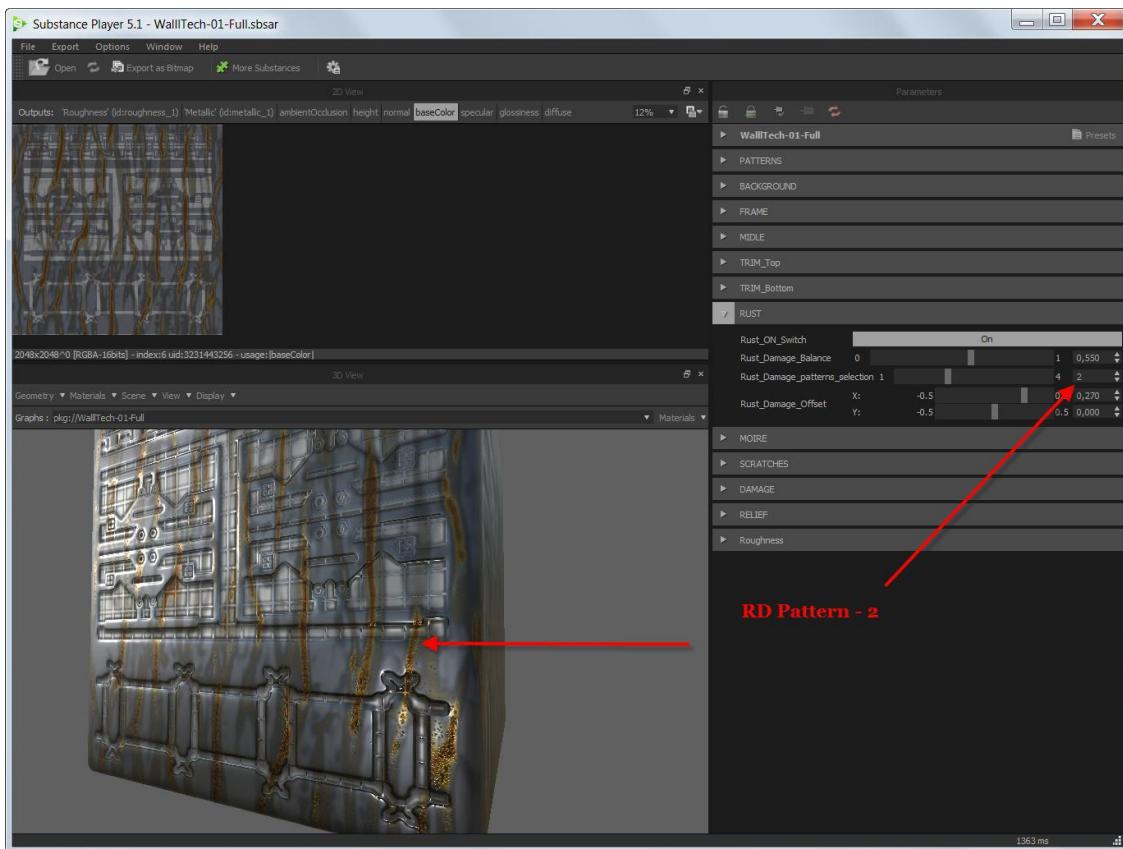
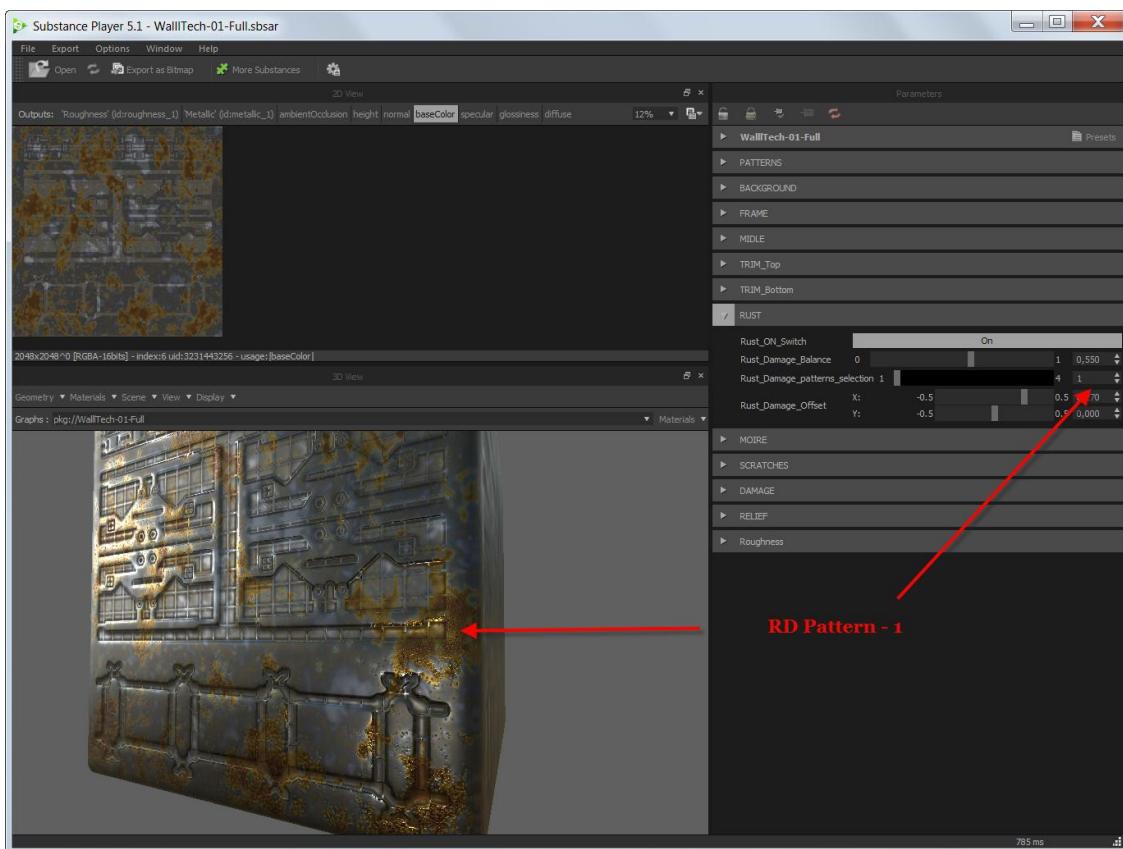
Rust_Damage_Offset_X, Y: allows you to change the position of an object on the X, Y axis.

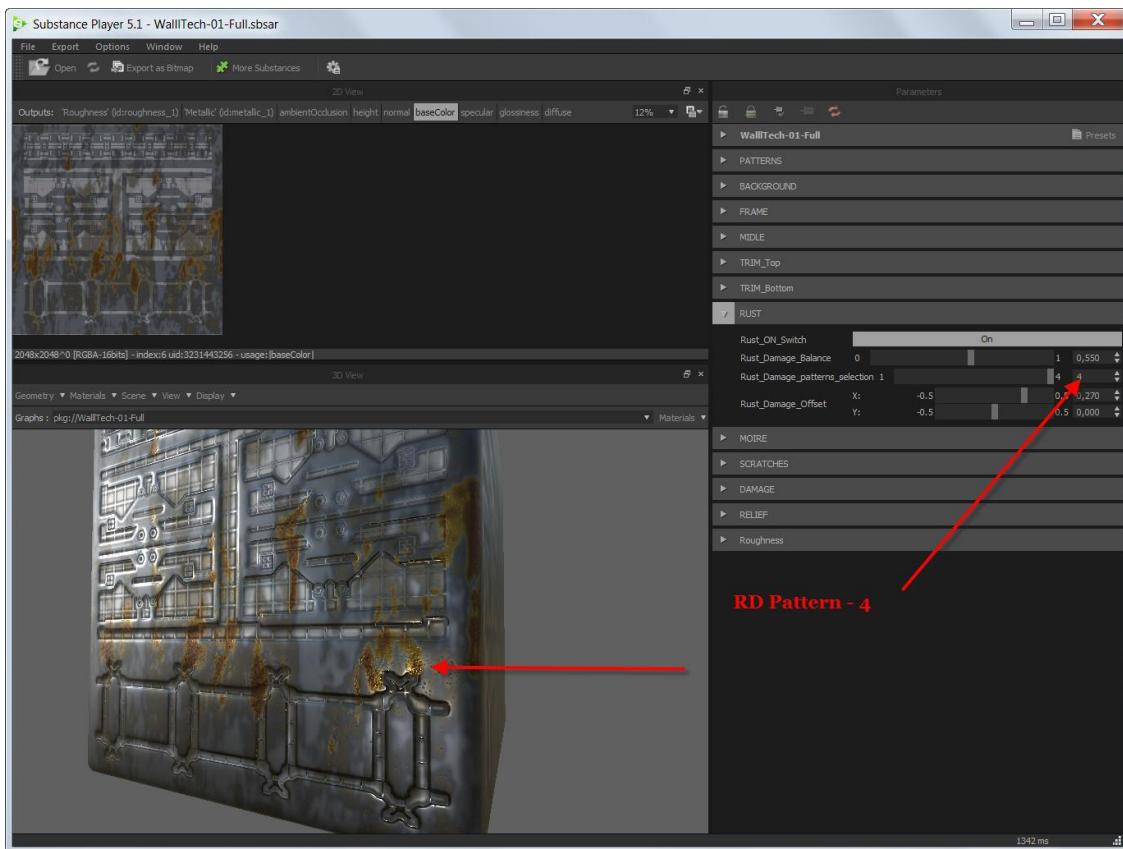
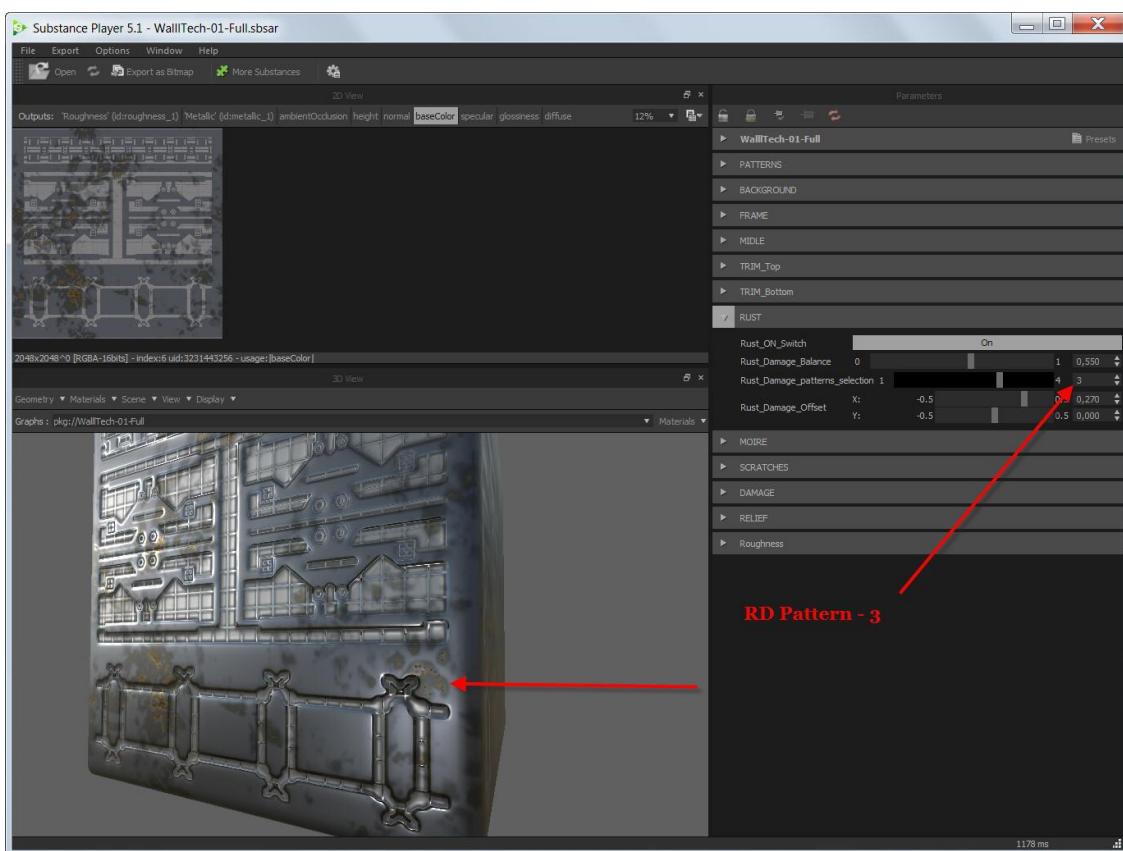
We will show some examples:

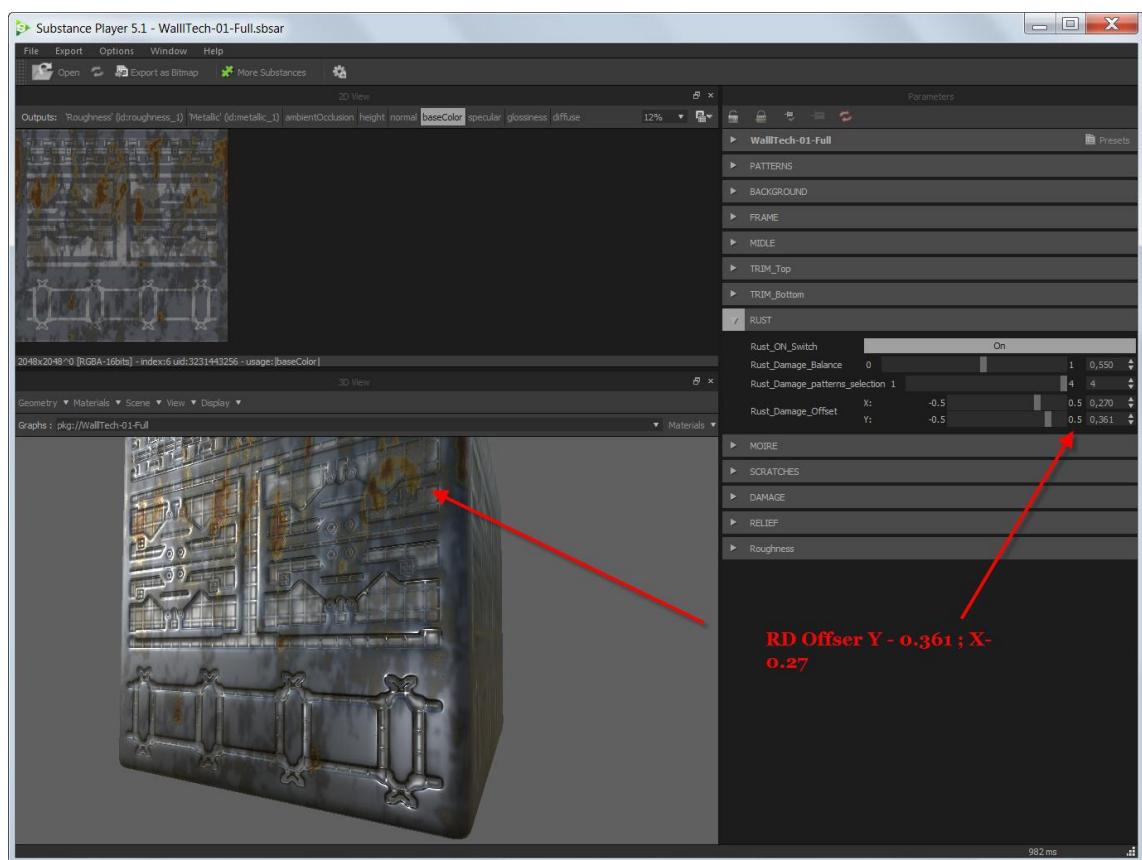










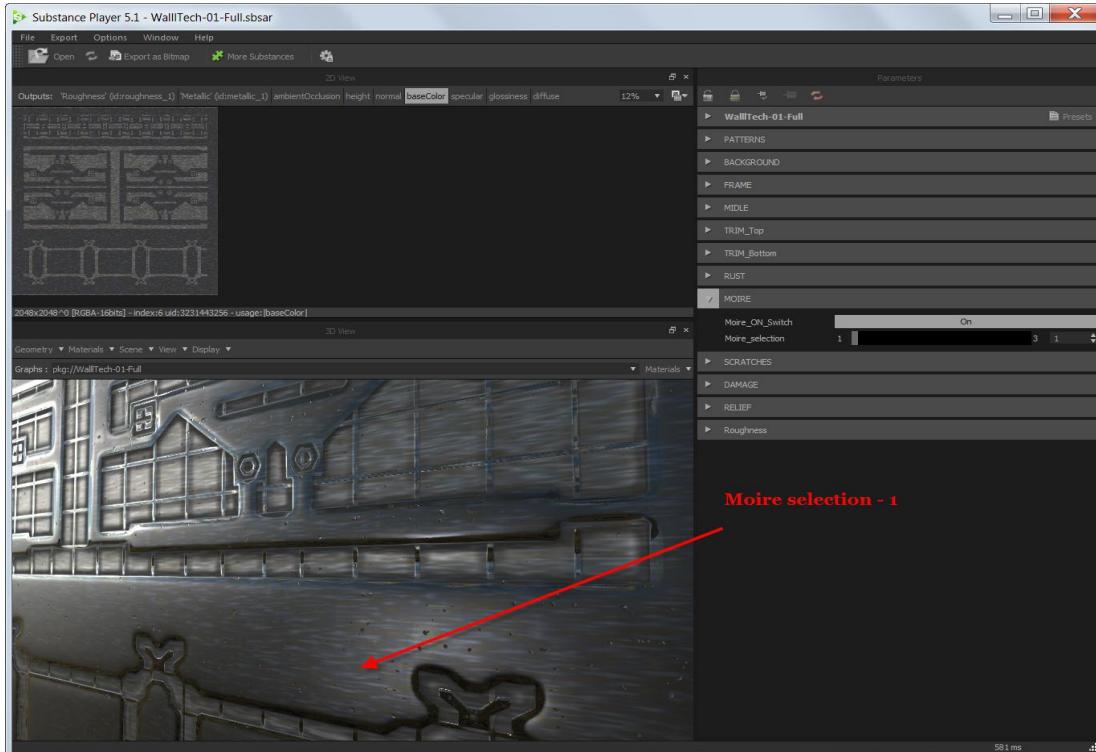


4.2 Moire

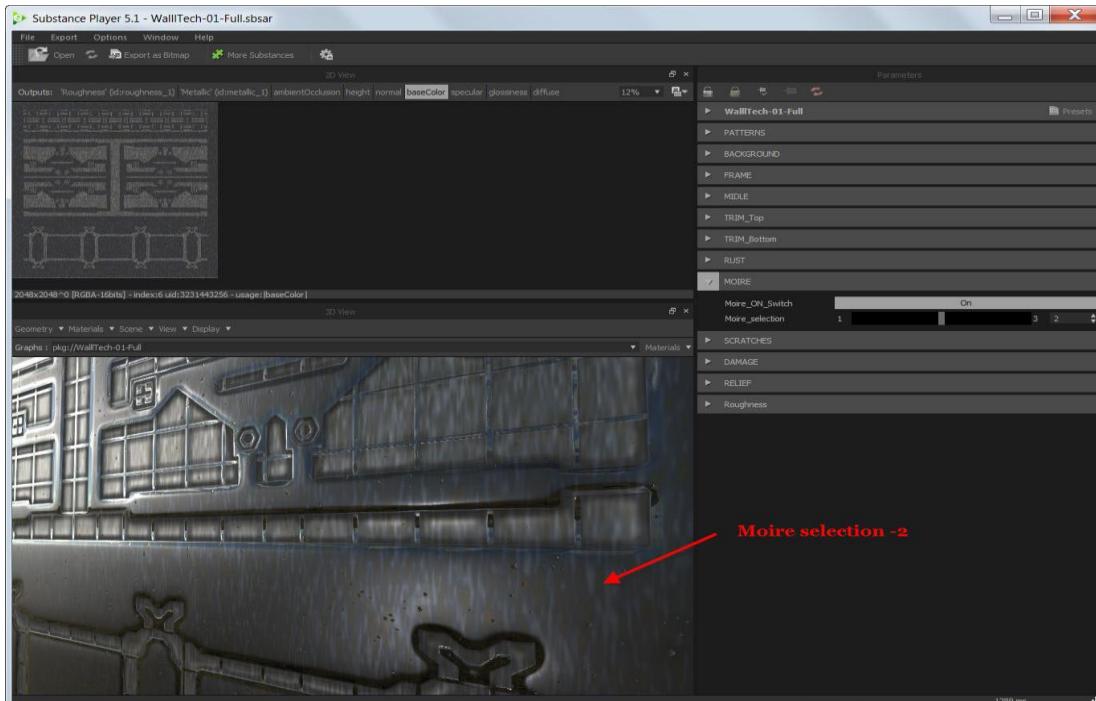
Group Moire consists of 2 items:

On Switch: allows you to show or hide the object;

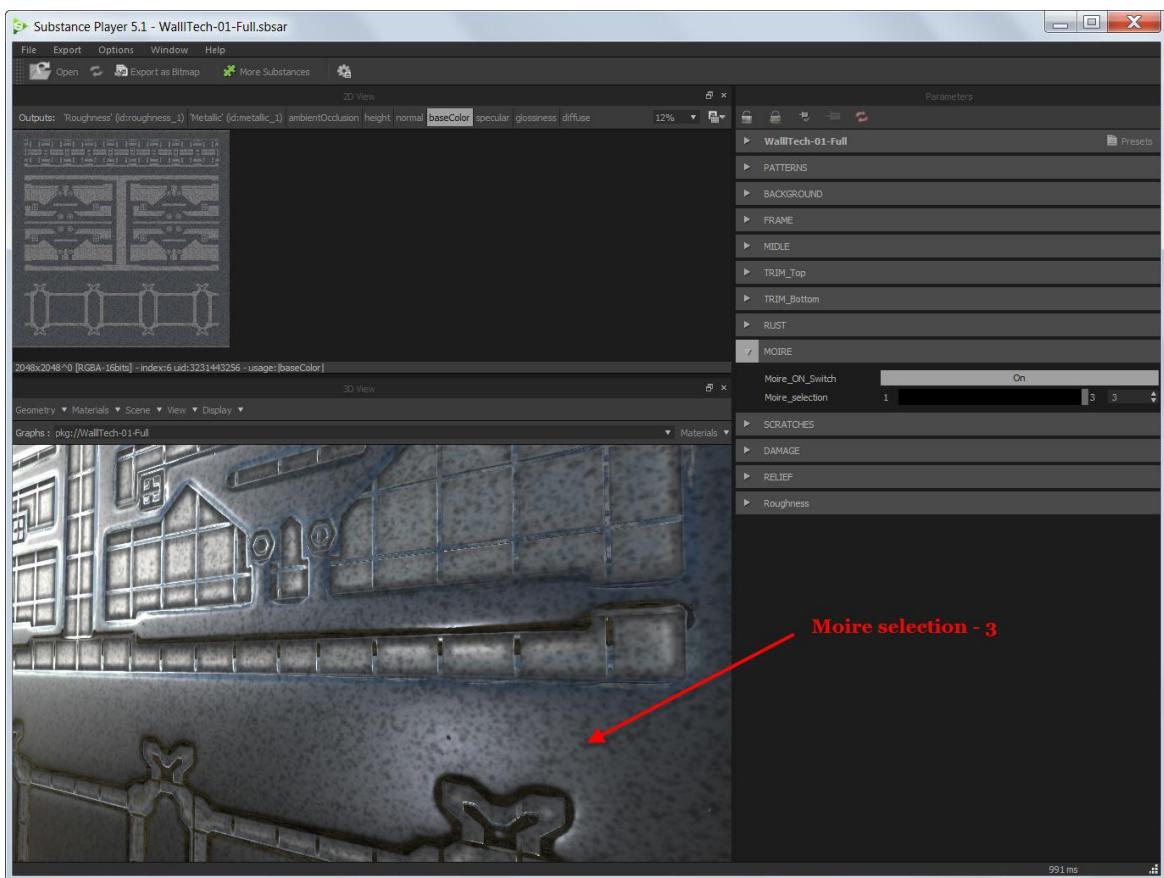
Moire selection: allows you to choose the appearance of moire;



Moire is the horizontal direction.



Moire is the vertical direction.

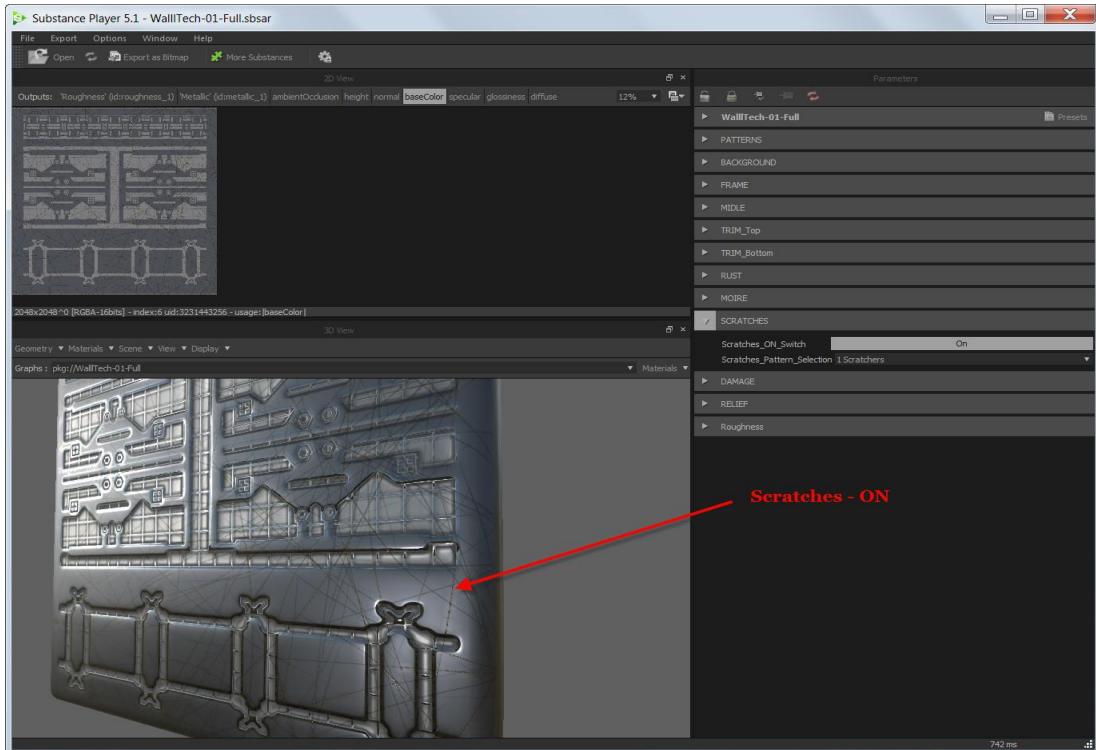


4.3 Scratches

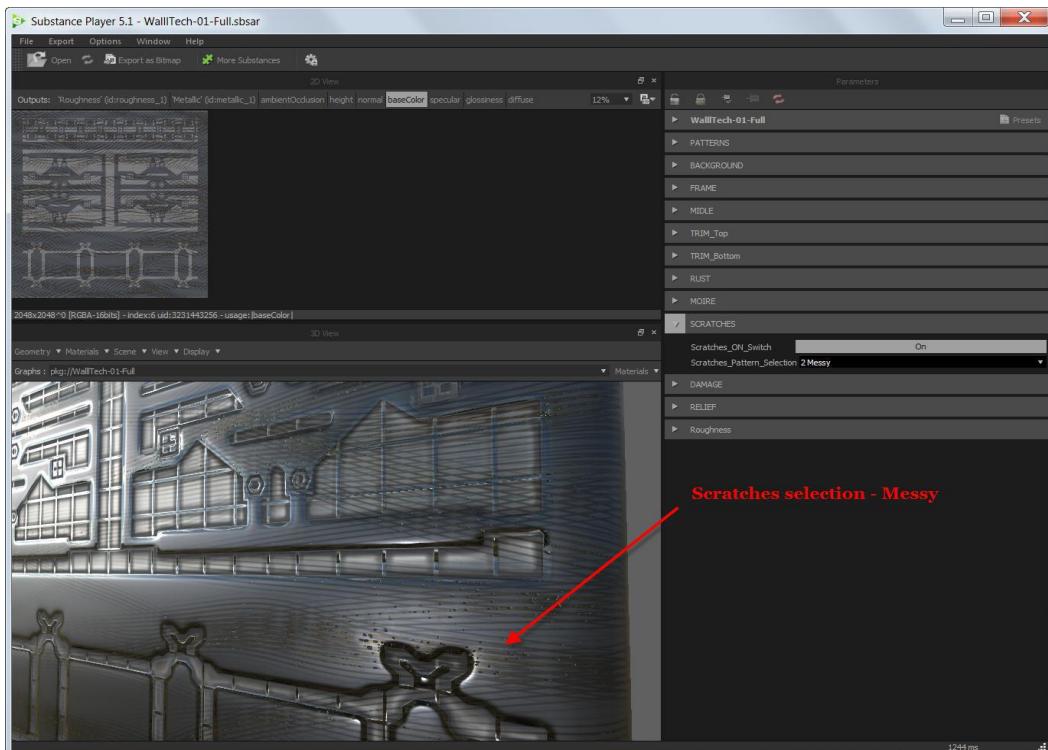
Group Scratches consists of 2 items:

On Switch: allows you to show or hide the object;

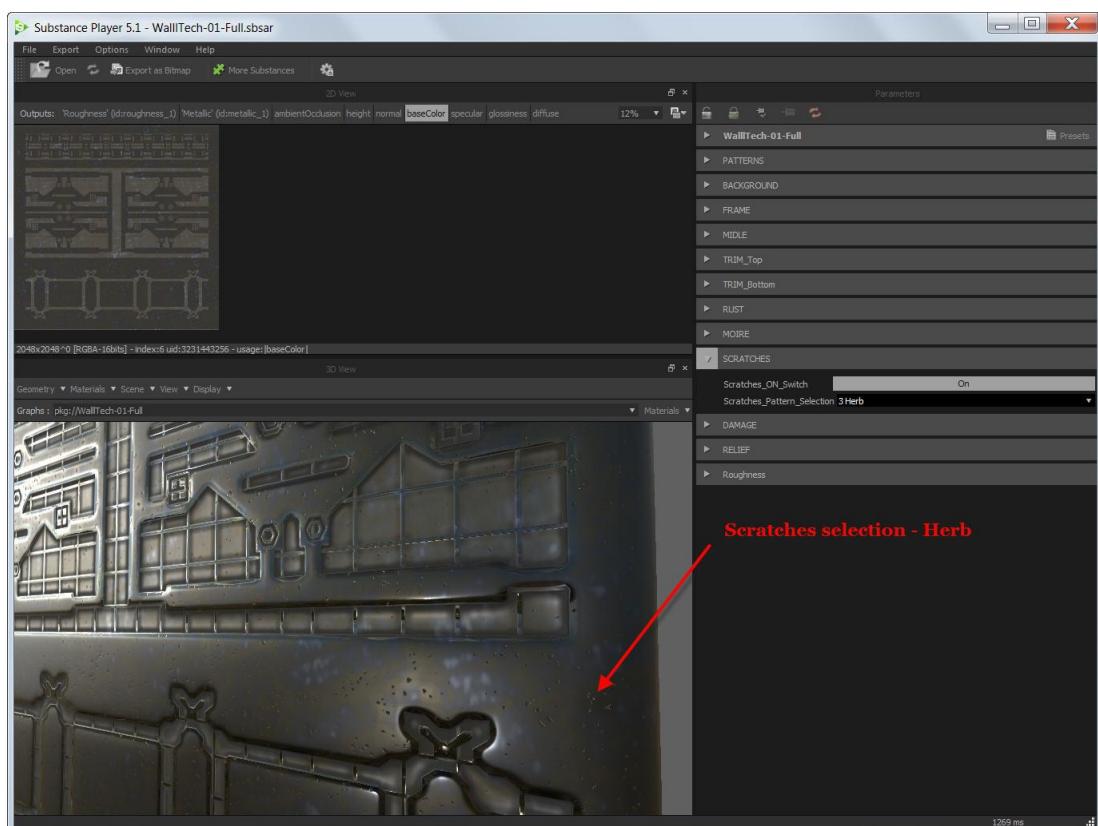
Scratches_patterns selection: allows you to choose the appearance of damage



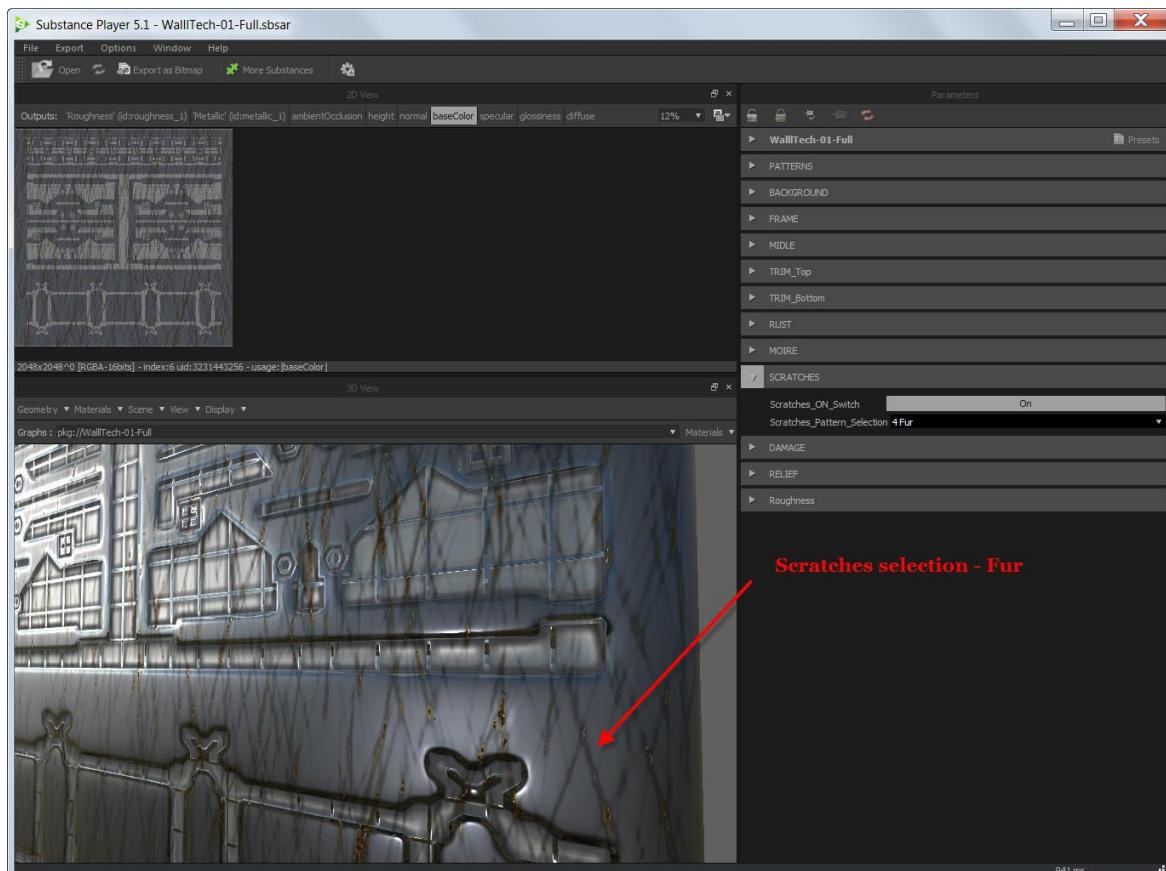
Scratches - Long



Scratches - Messy



Scratches – Herb



Scratches - Fur

4.4 Damage

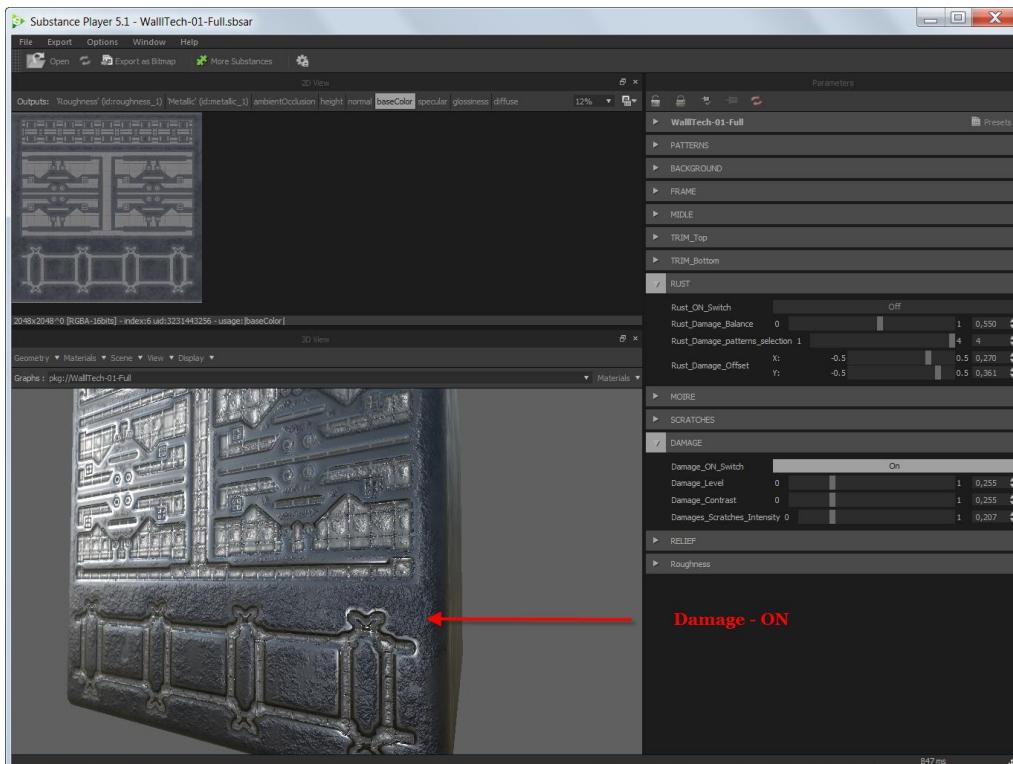
Group Damage consists of 4 items:

On Switch : allows you to show or hide the object;

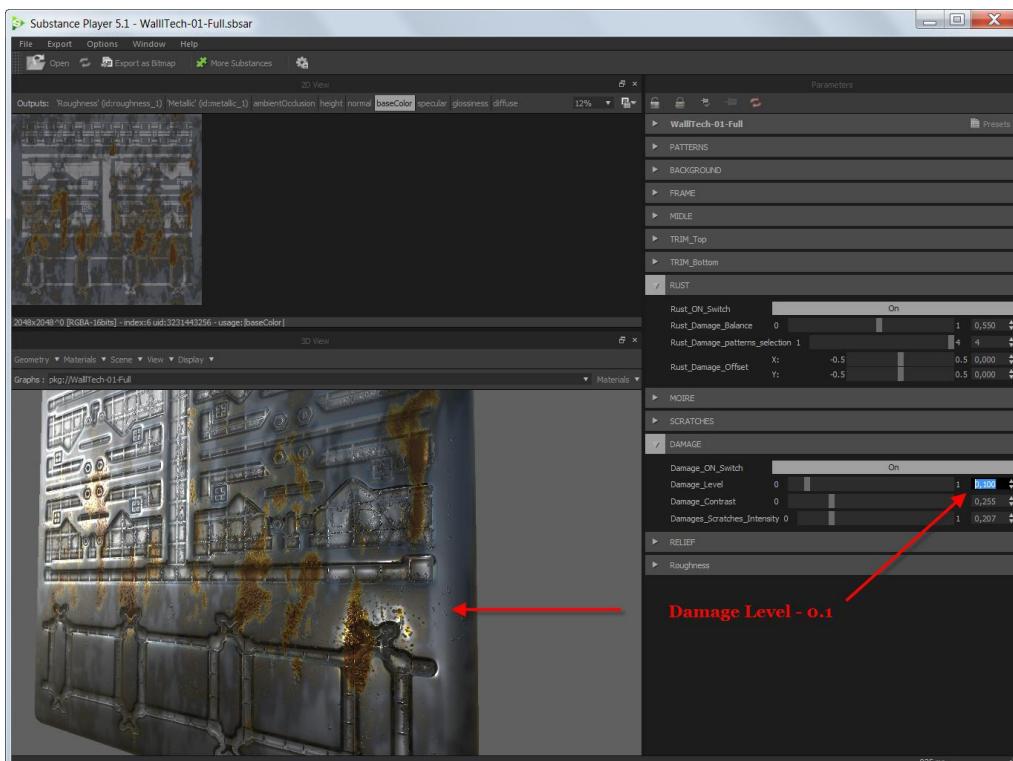
Damage Level: allows you to choose the level of damage;

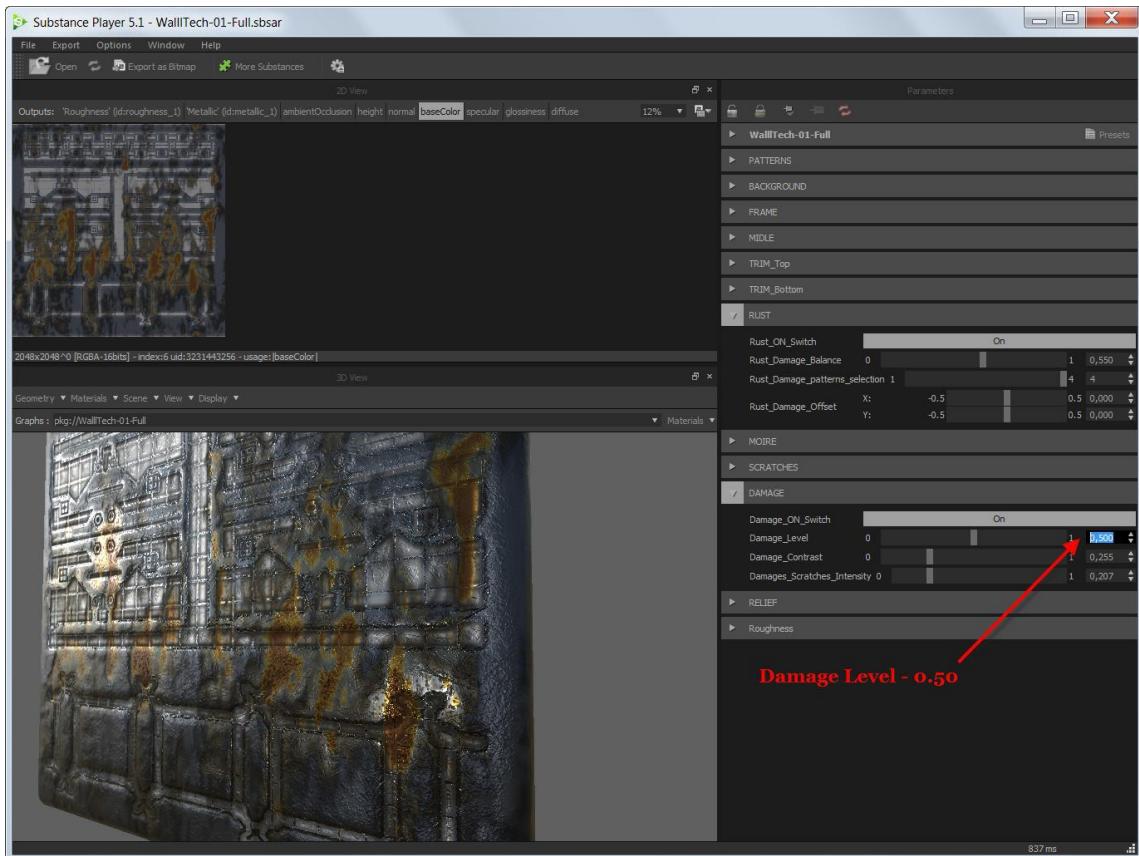
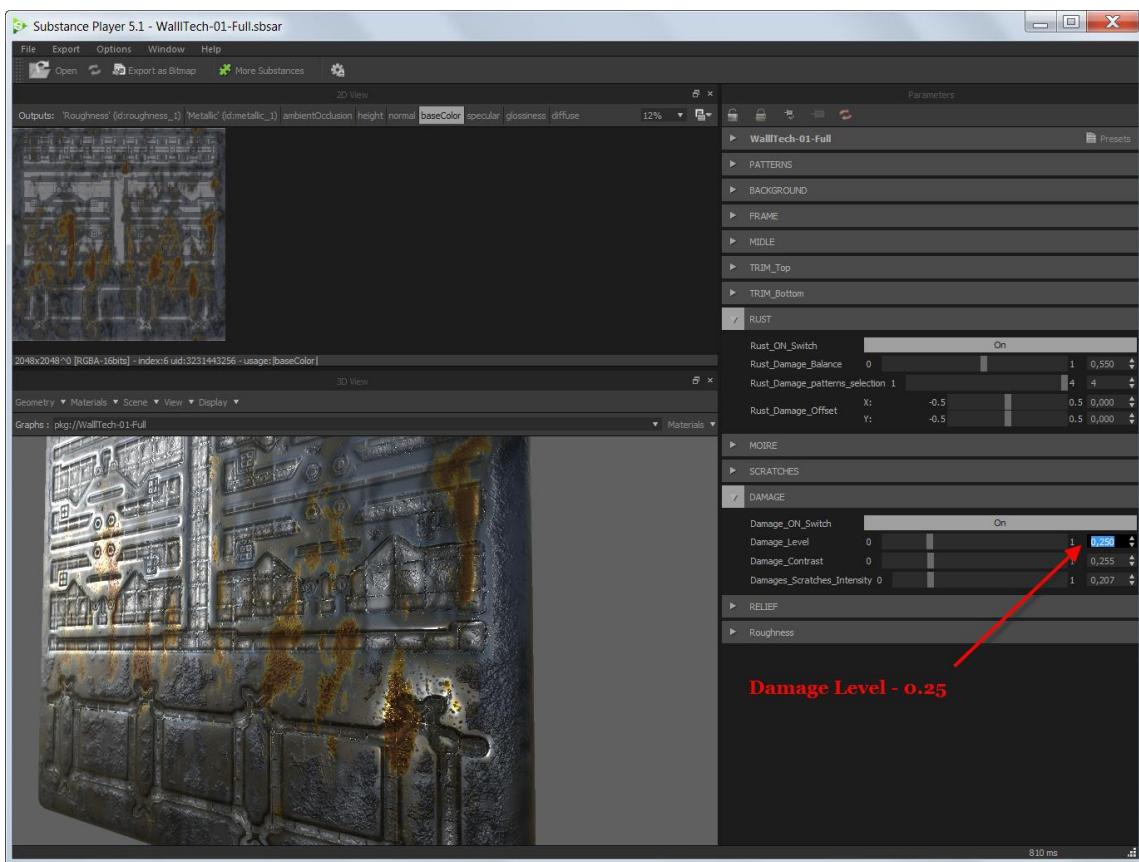
Damage_contrast: allows you to choose the overall contrast damages;

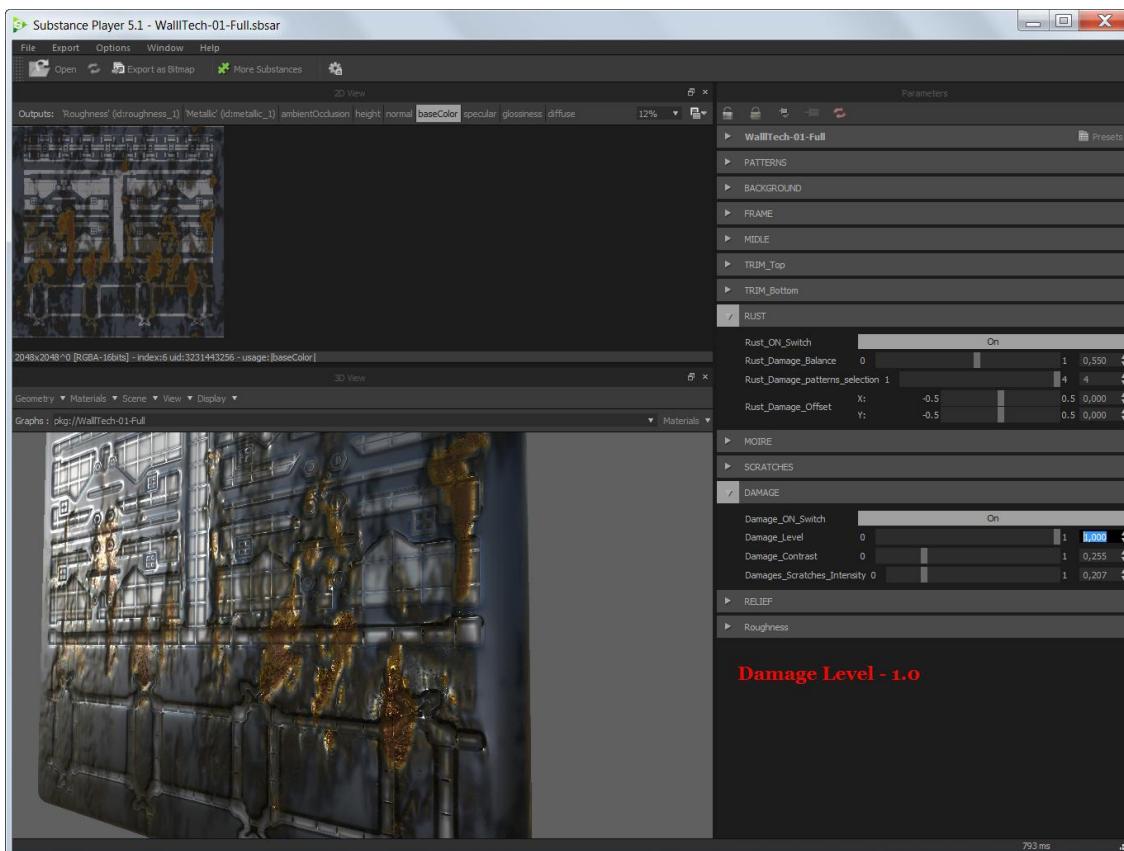
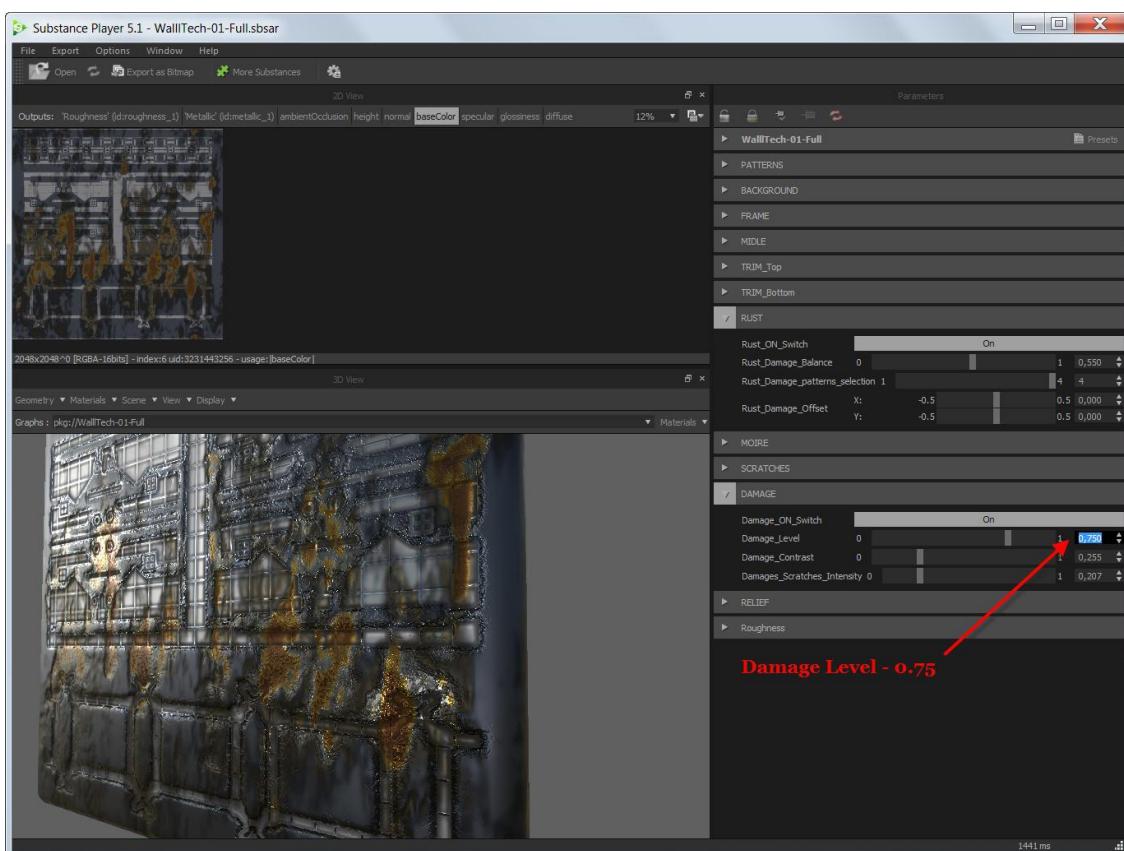
Damage_Scratches_intensity: allows you to change the intensity scratches of edge.

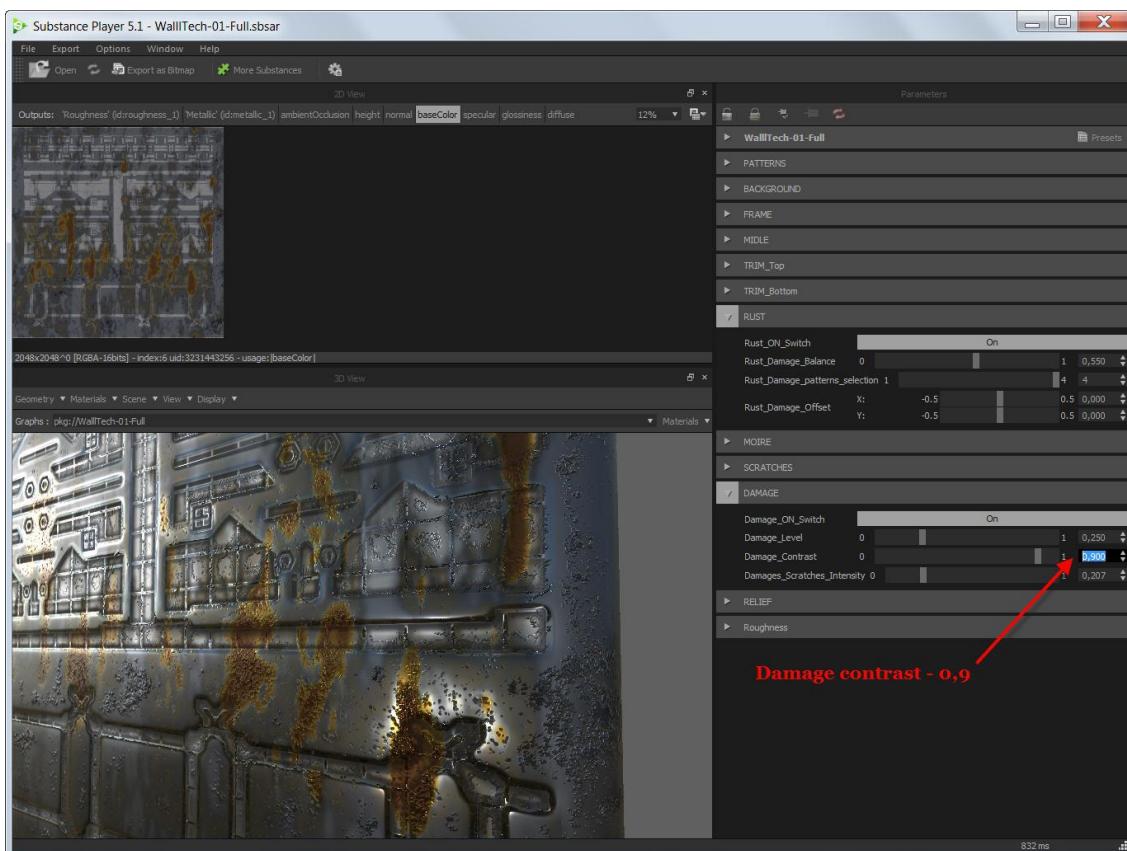
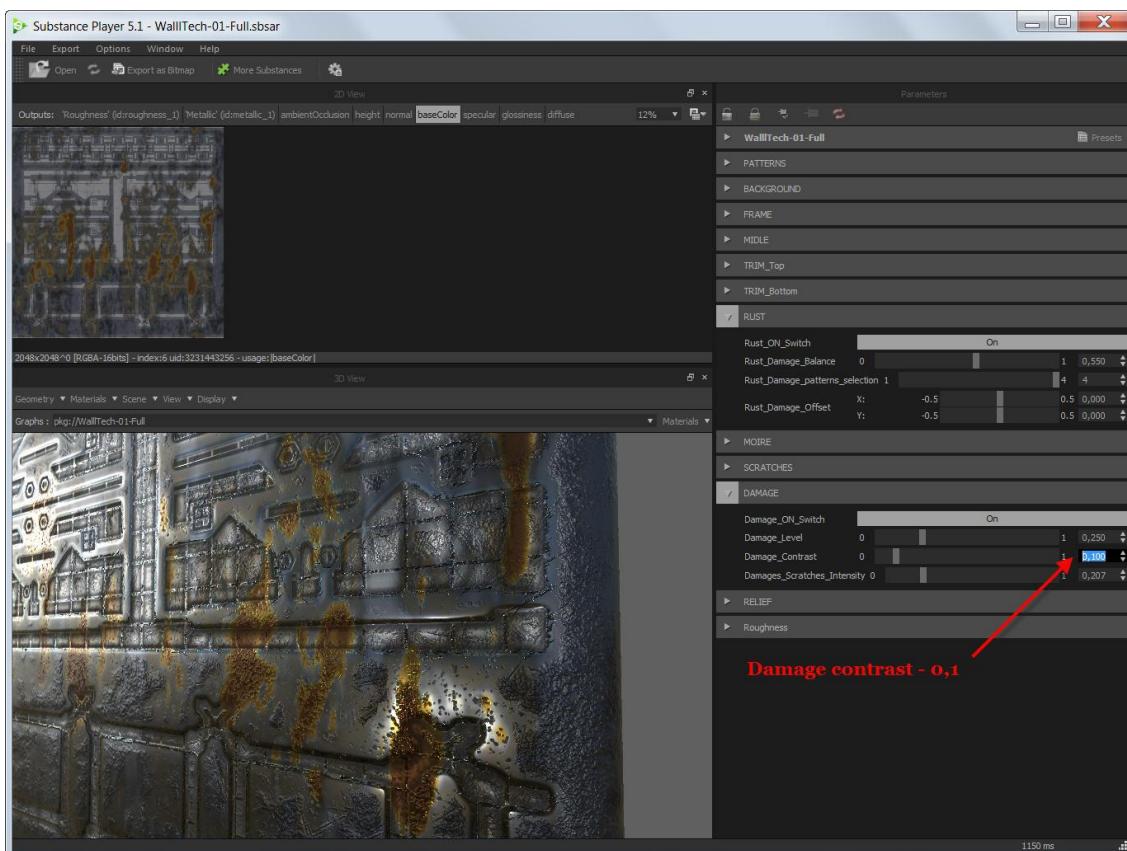


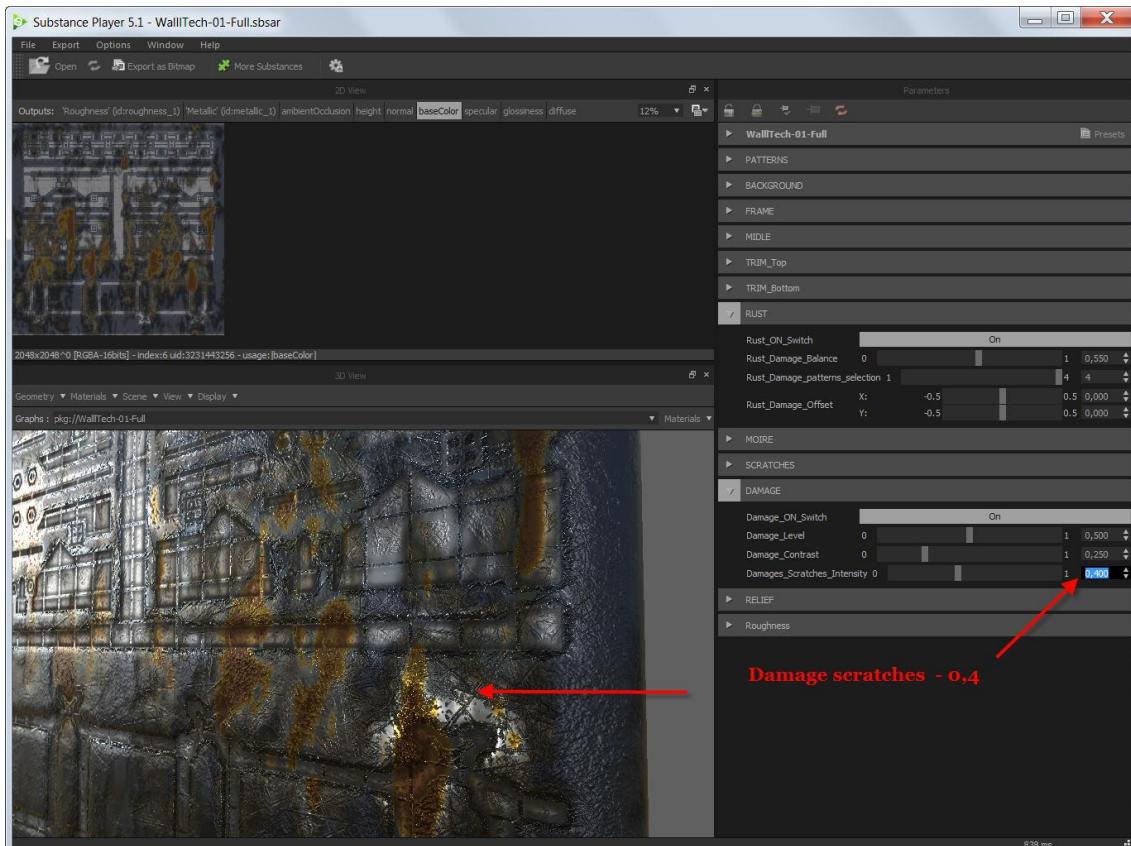
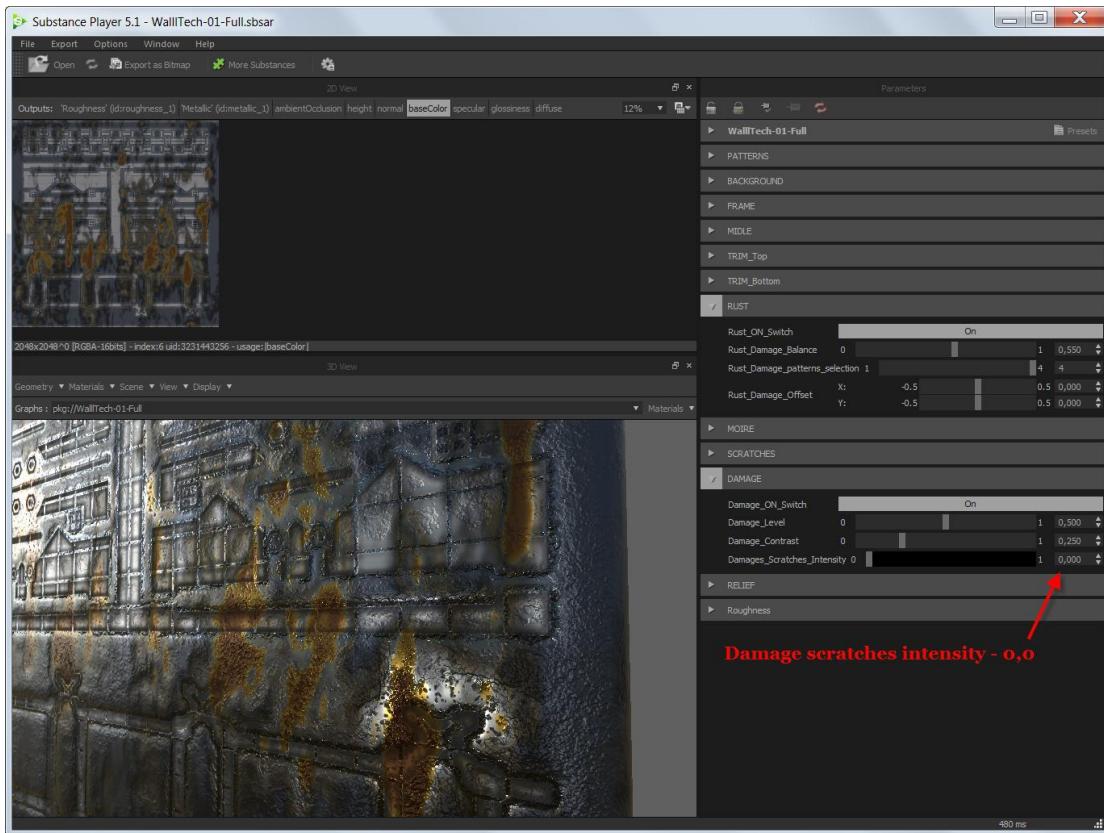
The following shows the change of damage depending on the values:

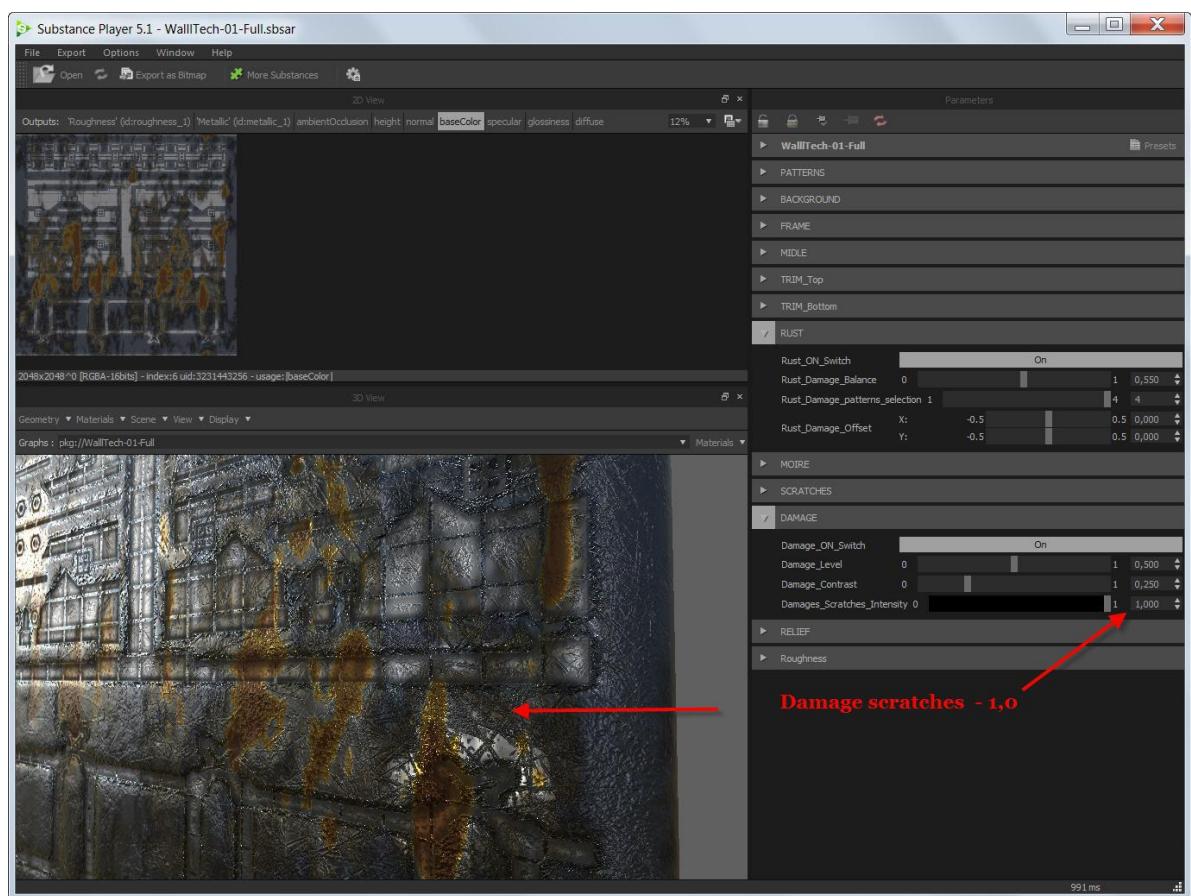










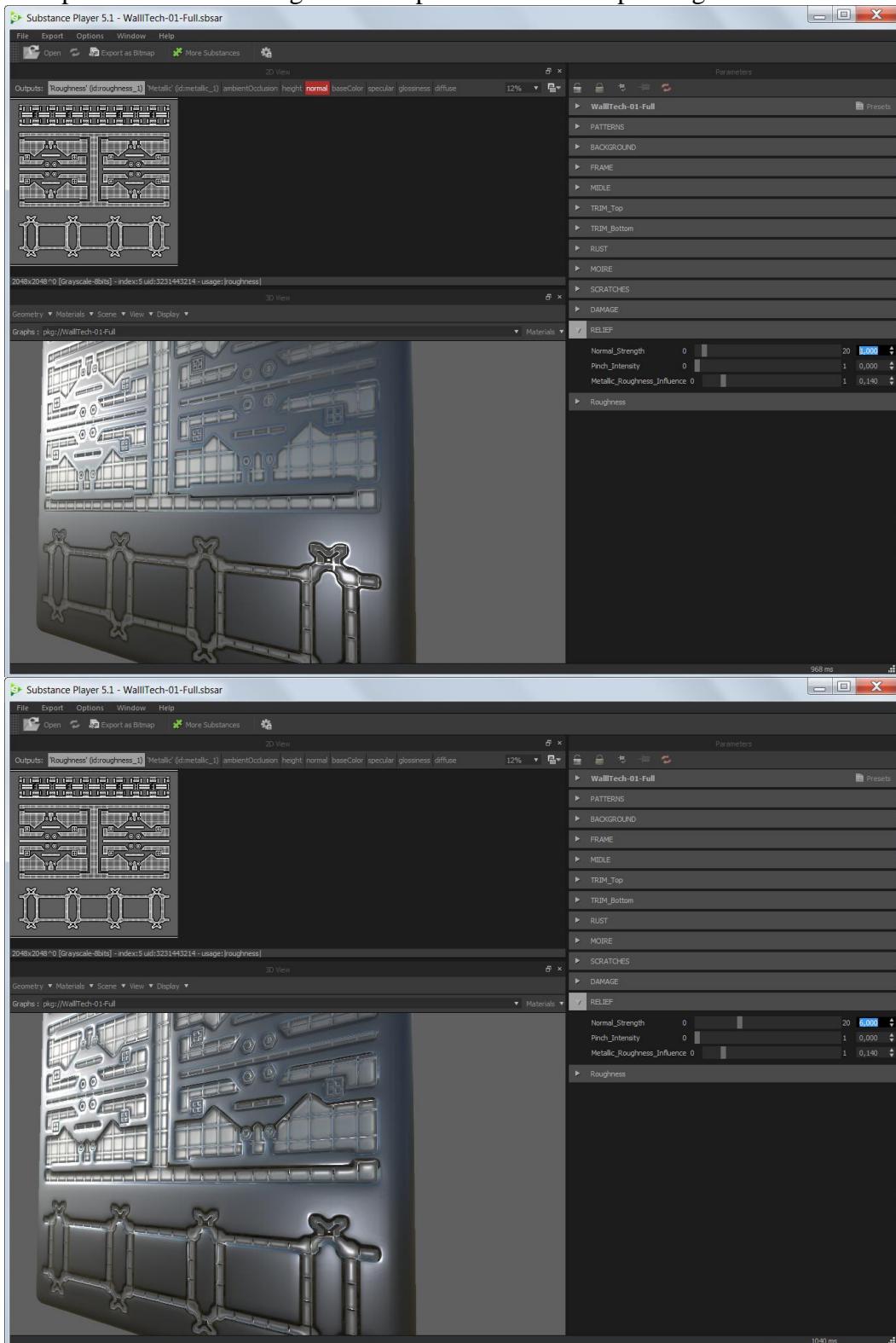


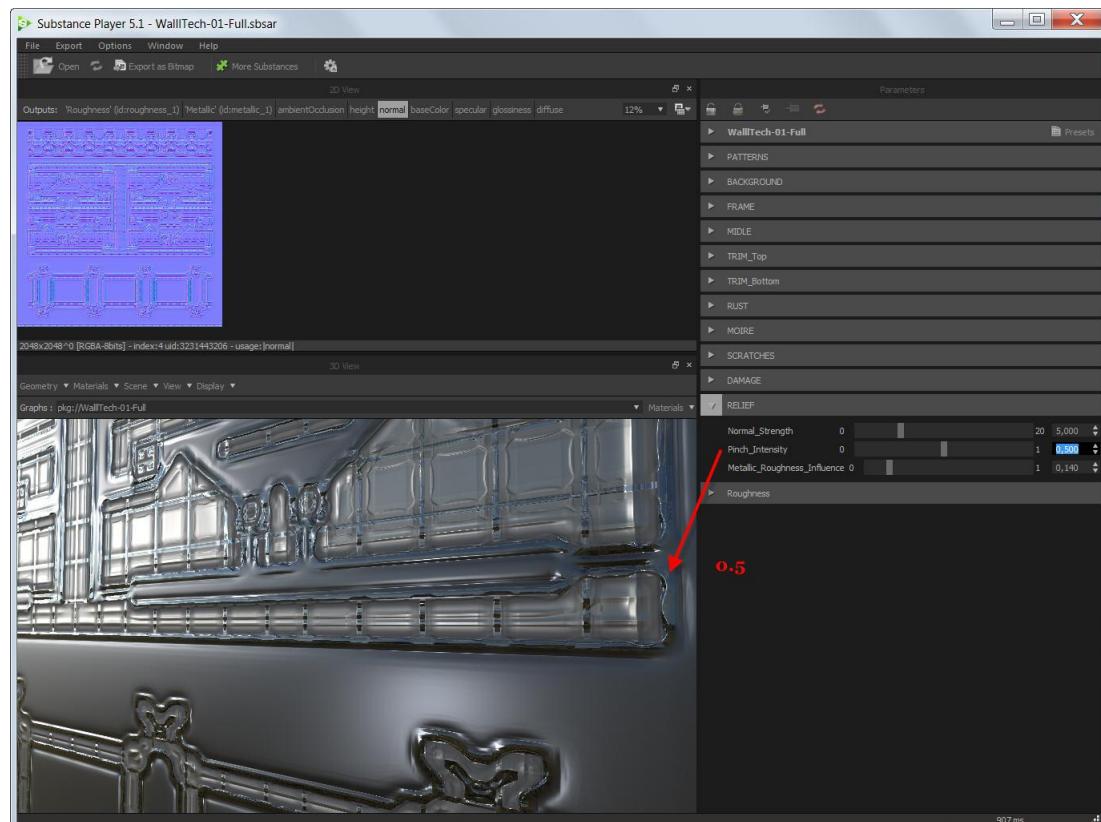
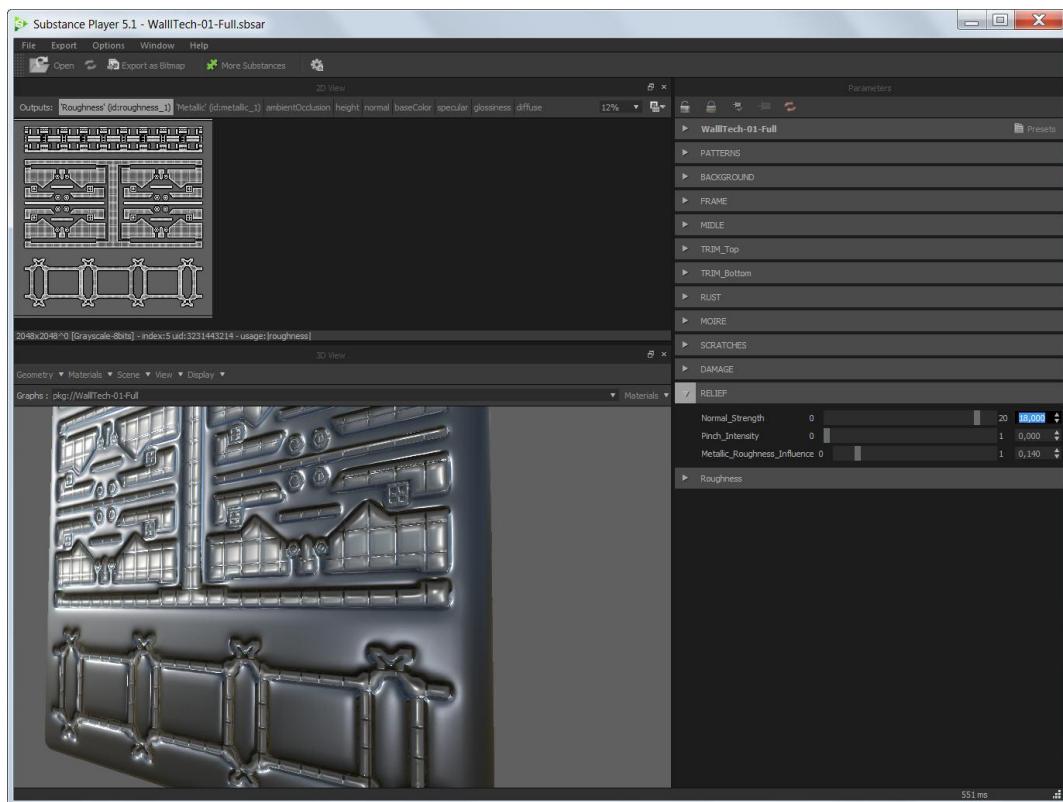
5. Features of Relief

Group Rust consists of 3 items:

- Normal_Strength** : allows you to visually change the bulk Patterns;
- Pinch_ intensity**: allows you to visually change the pinch edges of Patterns;
- Metallic roughness influence**: changing the surface roughness;

Next pictures show a change in the depth of the relief depending on the values:





Pinch - an interesting effect edging edge.

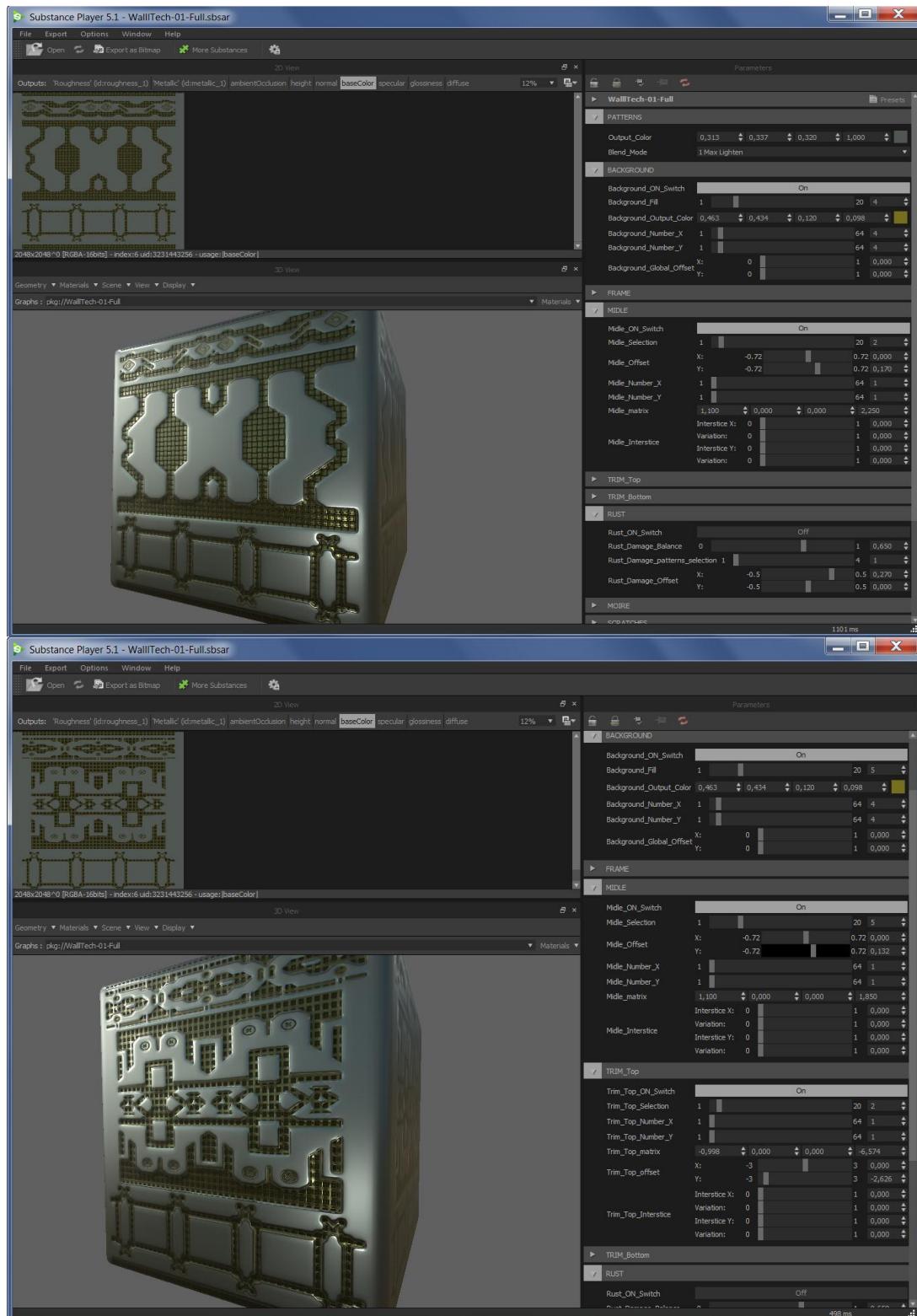
6. Examples and configuration settings

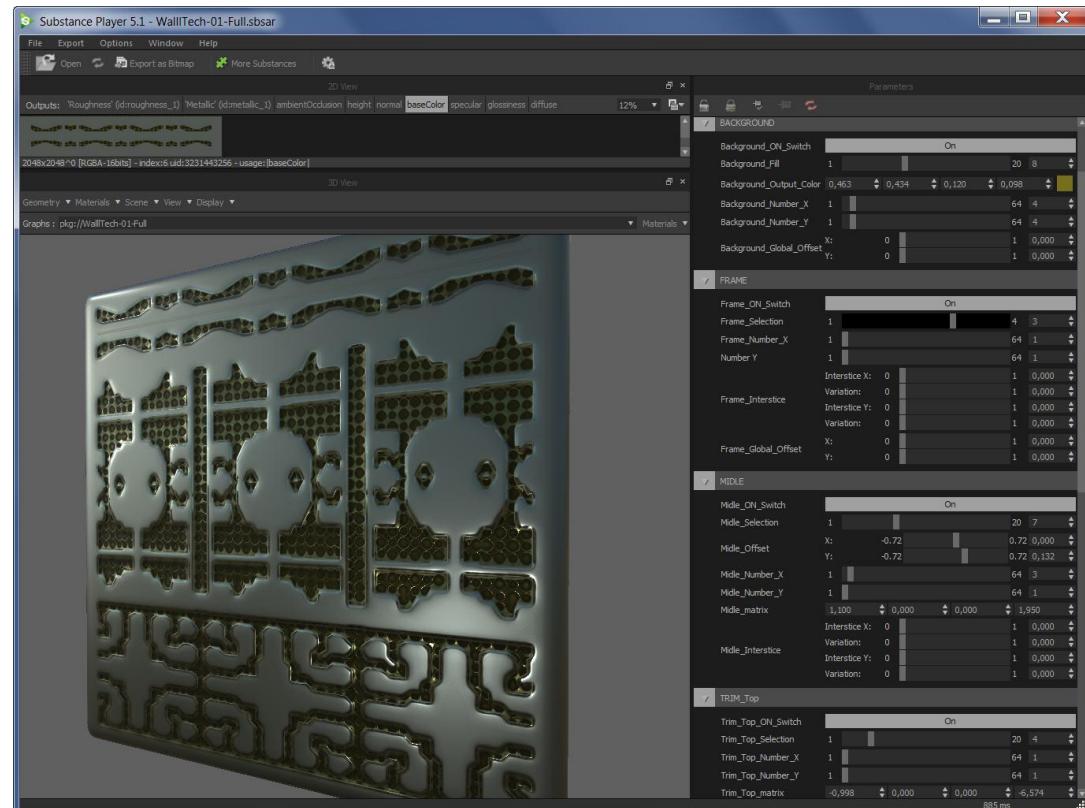
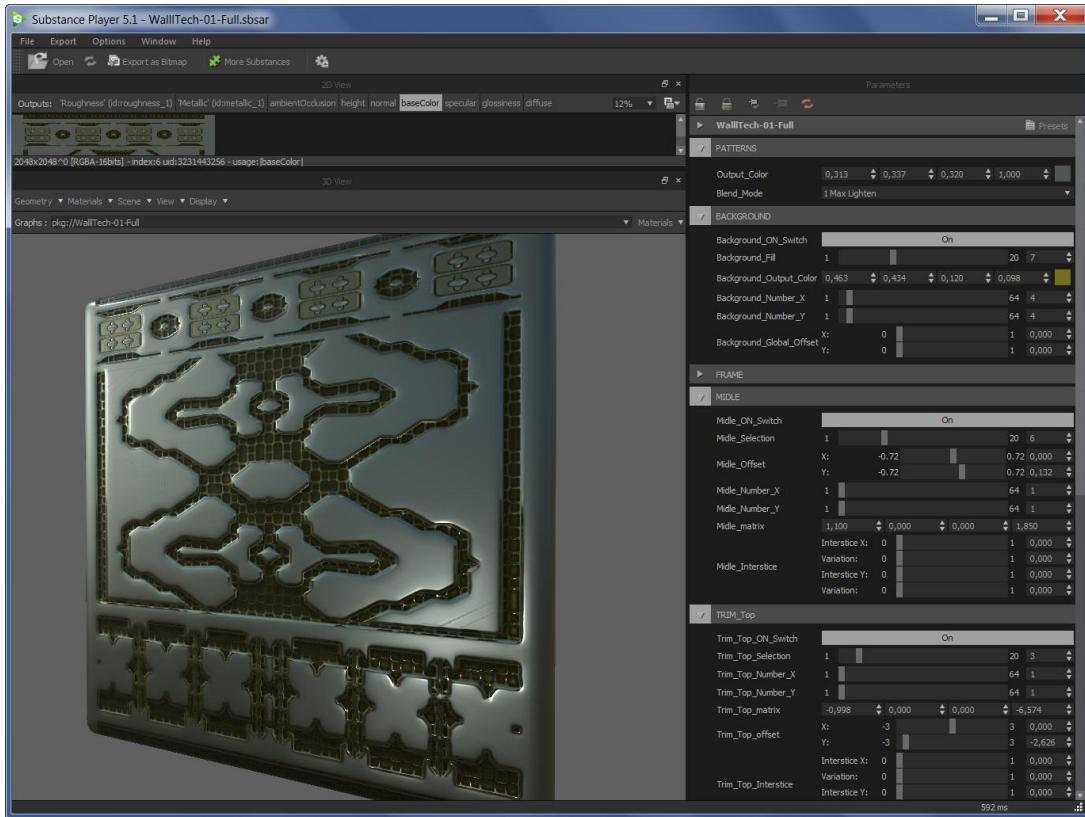
6.1 Samples Mix of Patterns

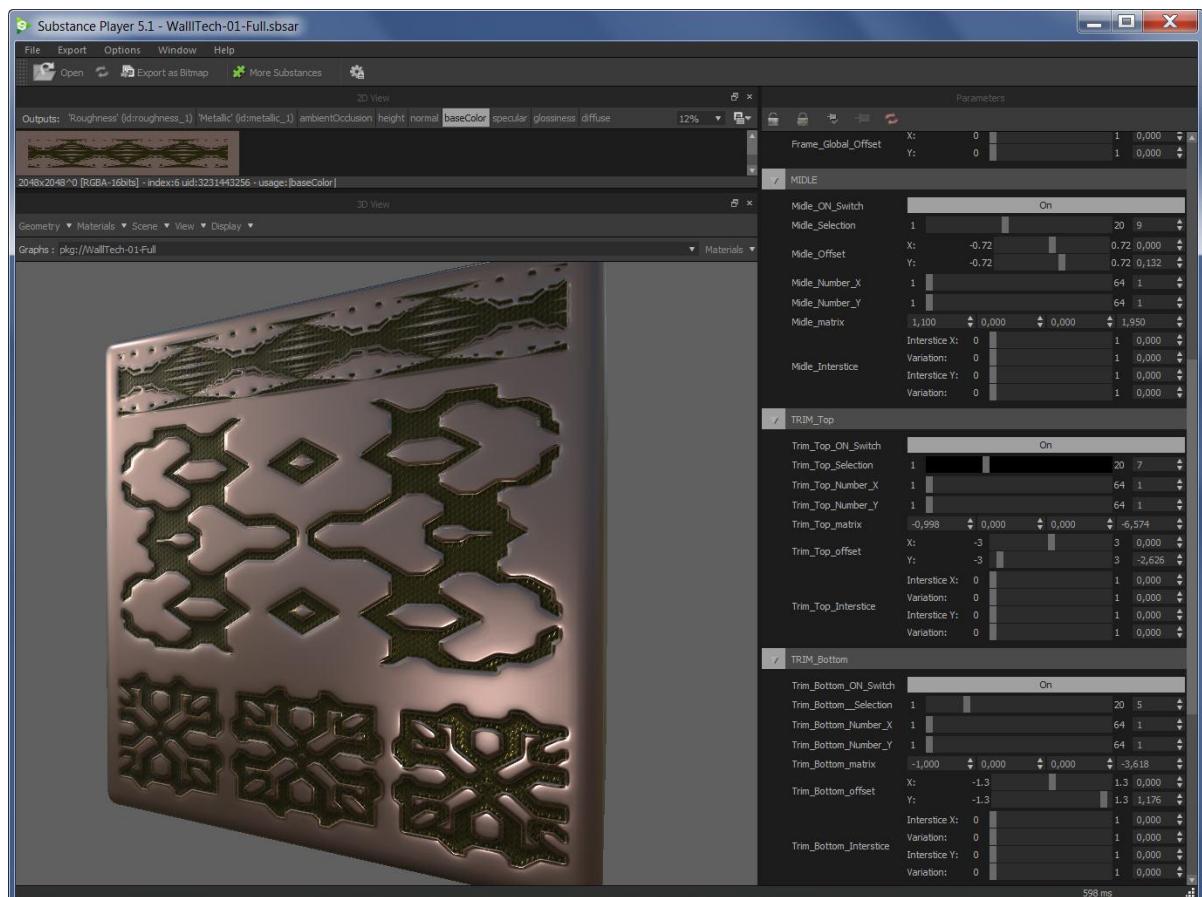
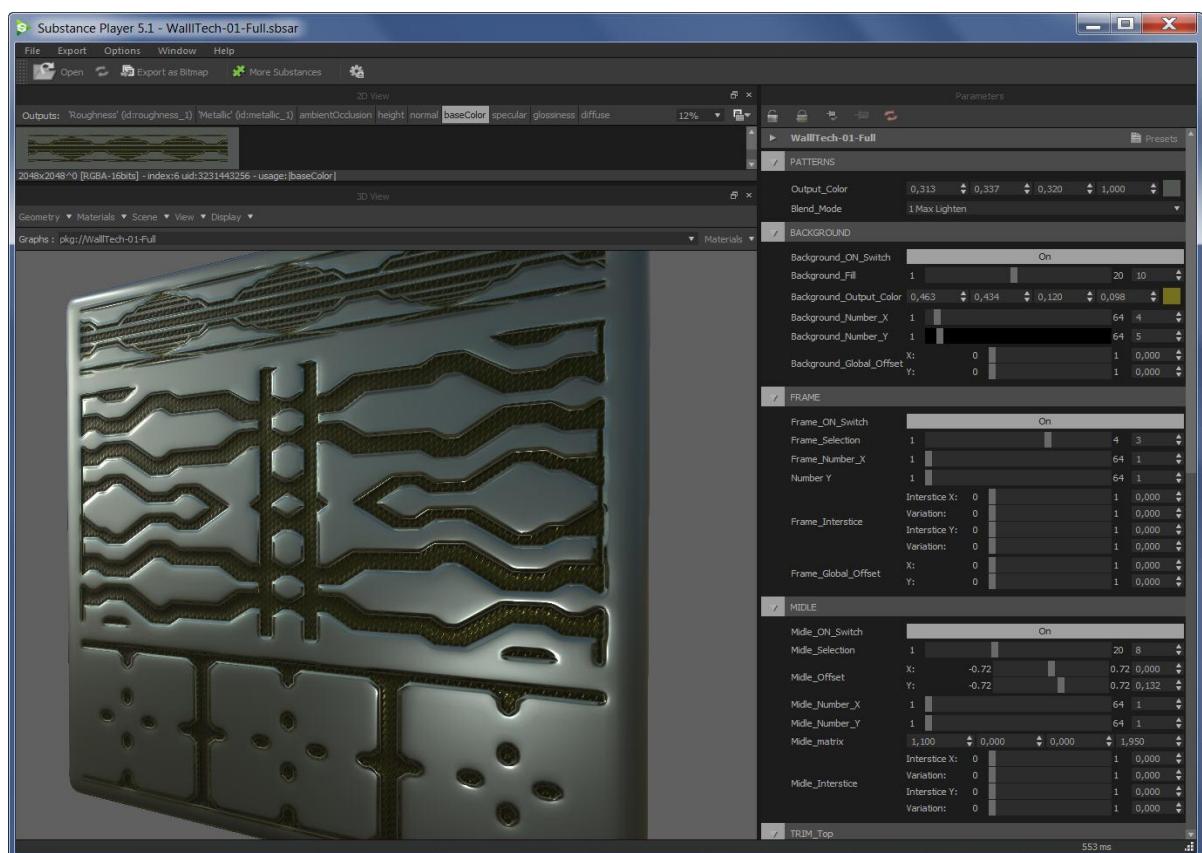
Trim Top, Middle, Trim Bottom and Background contain 20 pcs. patterns each.
Approximate number variations mix - more than $20 * 20 * 20 = 8000$ pcs.

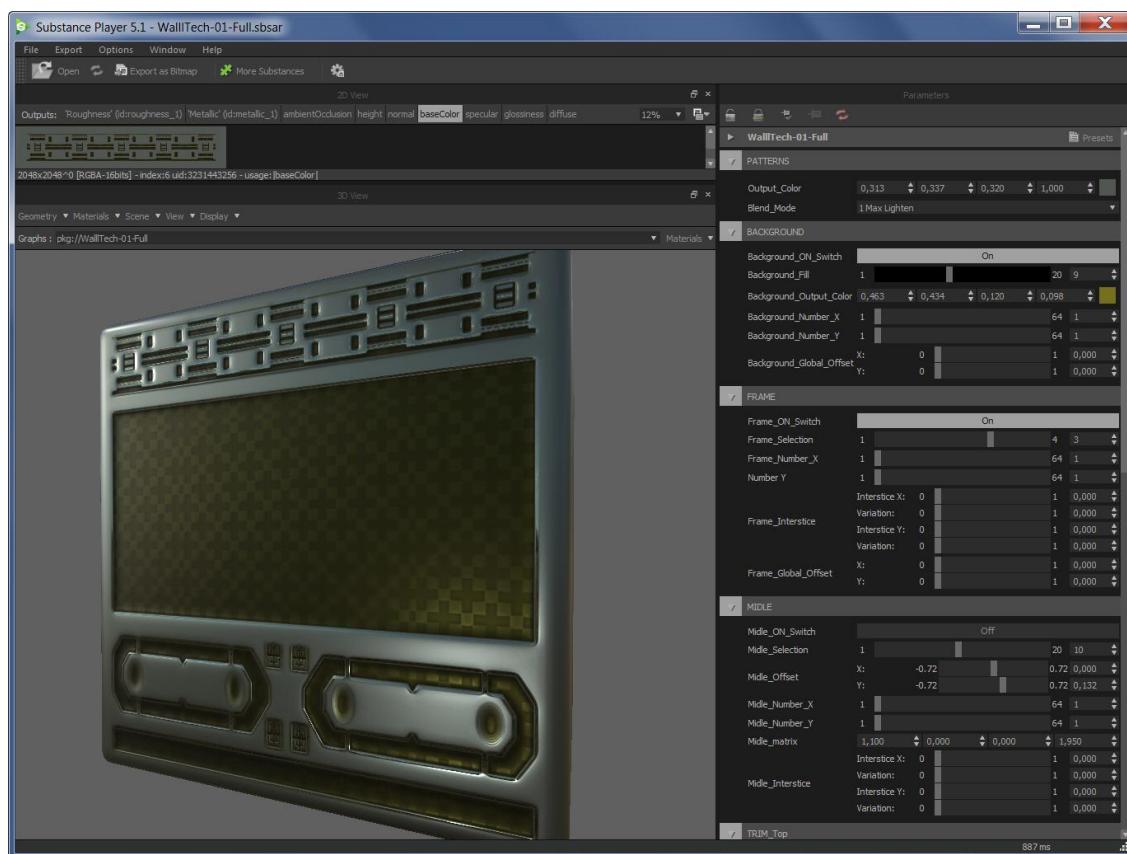
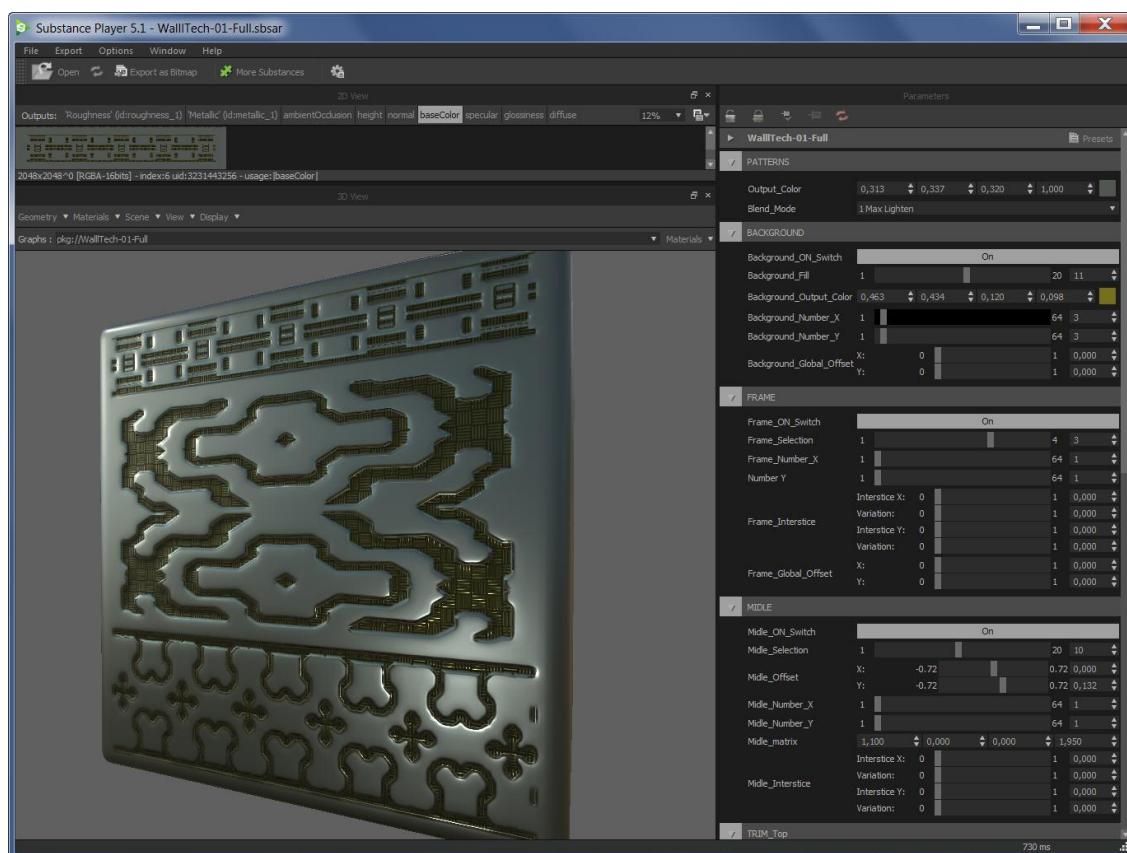
“ The author is not checked this formula :)"

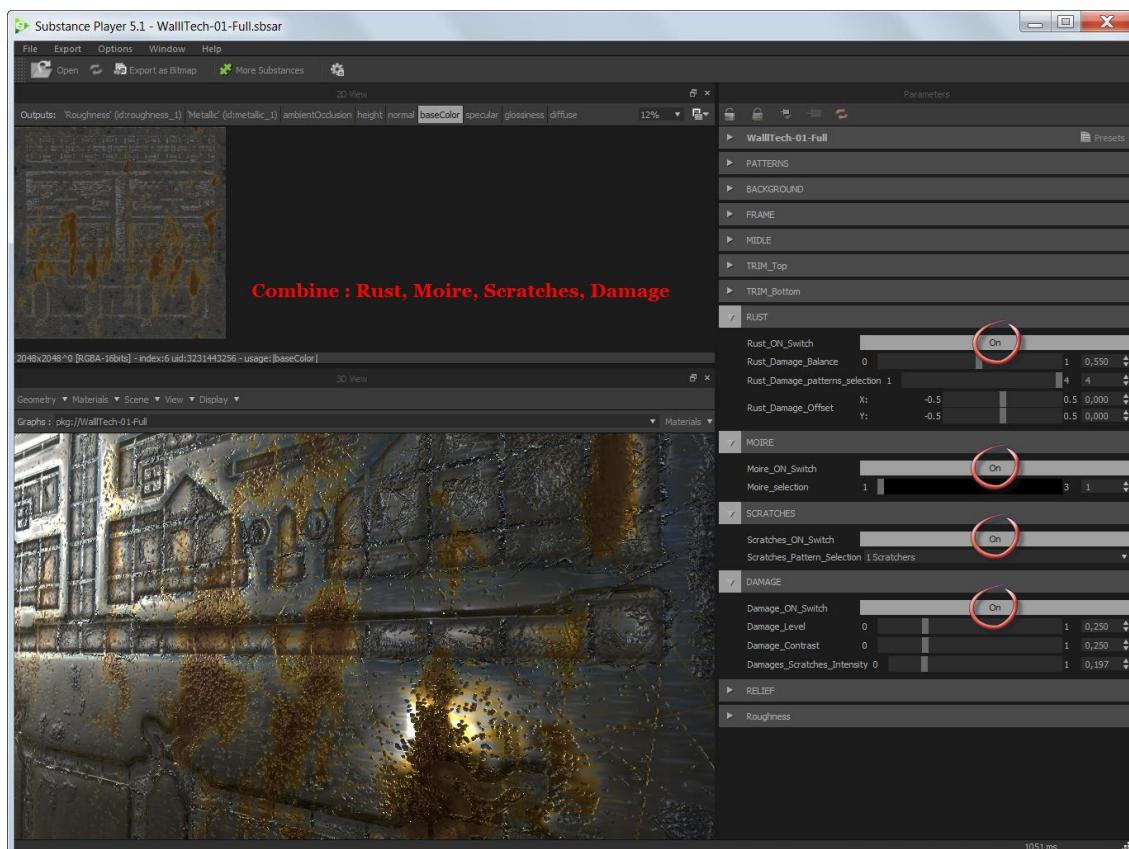
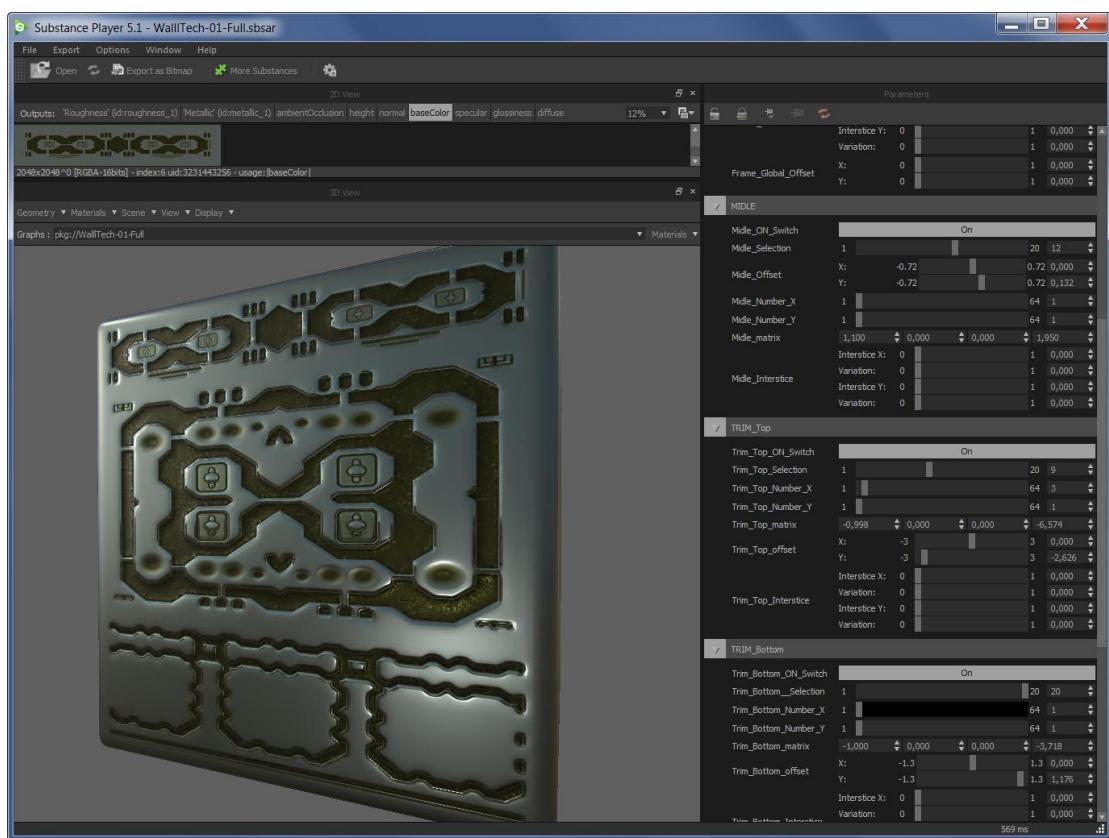
The following shows only a small part of a huge number of option:







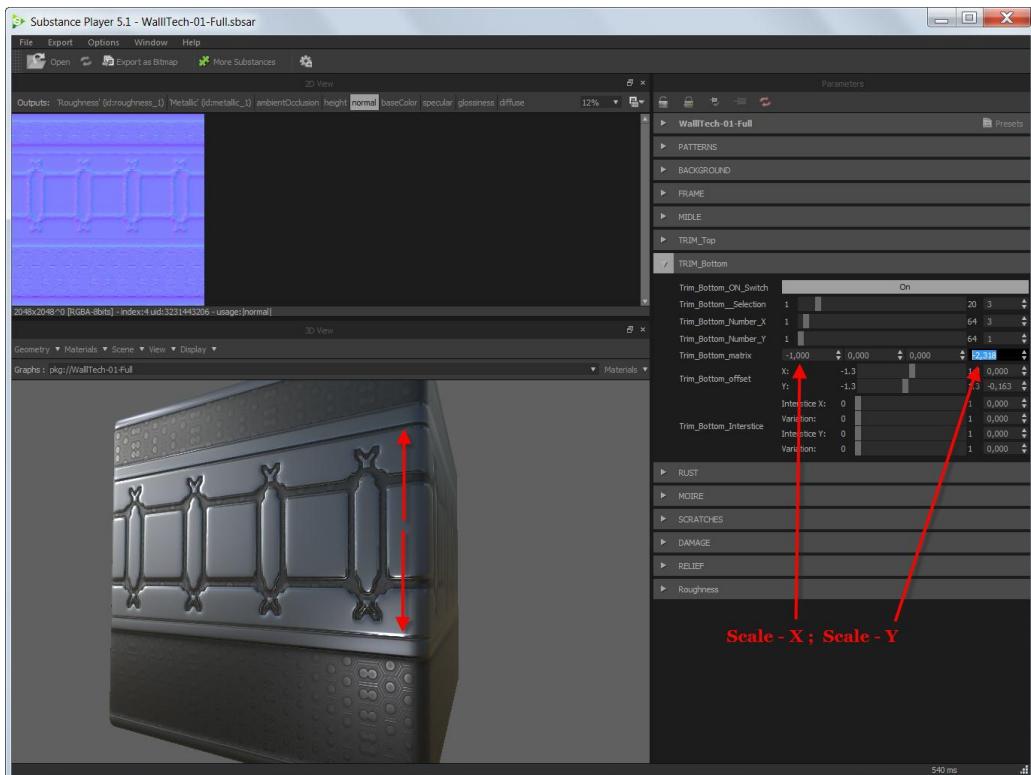
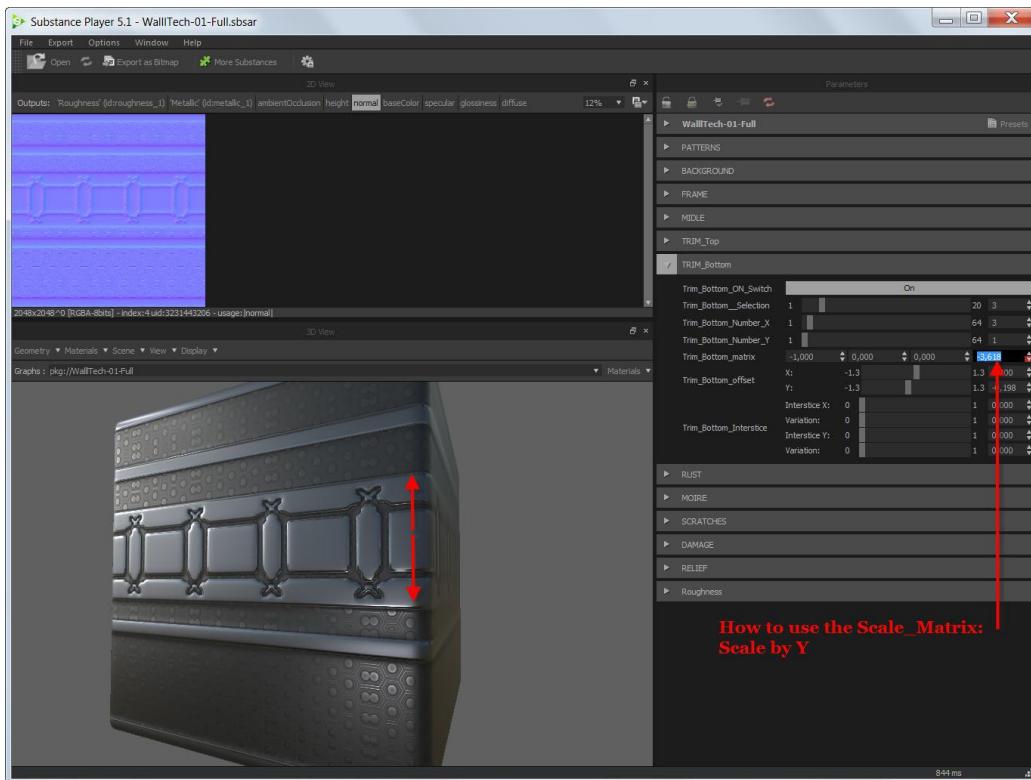




If you want strongly to soil texture of the material, you can combine all kinds of damage.

6.2 Samples scale of Patterns

To ensure the best quality picture – provided scalability(Matrix X, Y);
Offset; Interstice of patterns, at X, Y axes.



To be continued...

About the author:

My name is Vasily Lenko. I live in Ukraine. I am an individual developer.

I like to create computer games for your enjoyment.

Recently I met with a wonderful program of substance Designer, which enables creative people to carry out all his plans texturing models. I'm not an artist, but this program has made me so!

I have many plans for the creation of a variety of universal substance material - Many in one.

I continue to work for improvement and further development ...
I will answer all your questions with pleasure. E-mail 3dredbox@gmail.com

Best regards!



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<http://3dredbox.wix.com/portfolio>