Version 20 Feb 2023 CHIMERA 45° script for 3Dsmax

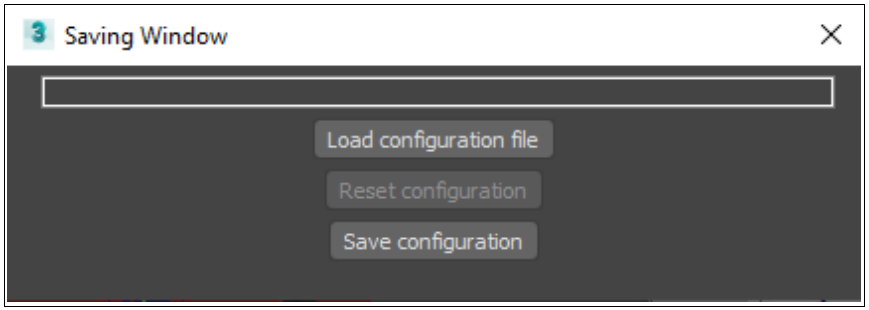
3DSMax 45° script for half and full parallax rendering

This procedure describes how to generate images from a 3DSMax scene using a 3DSMax script, in order to create a CHIMERA™.

- load the object file within 3DSMax
- load the script : <script> <Run Script>

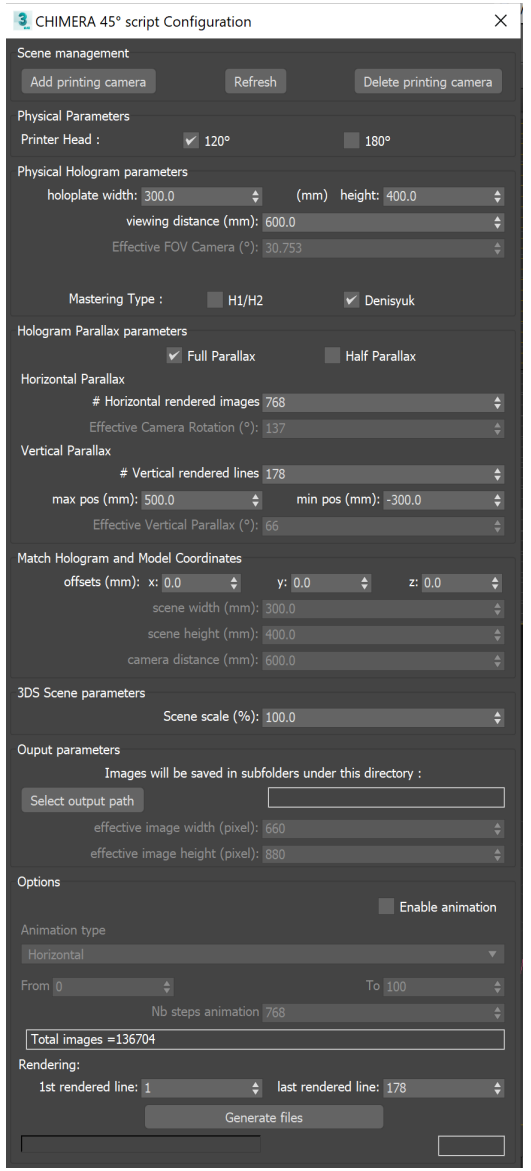
1: The Saving window:

Load a configuration file : to load a configuration file previously saved.
Reset configuration : to return to the default parameters.
Save configuration : save your actual configuration status.



Version 20 Feb 2023 CHIMERA 45° script for 3Dsmax

2: The CHIMERA 45° script Configuration window:



Physical parameters :
Printer Head: Choose the printer optical head that will be used to print a CHIMERA™ hologram.
Physical Hologram parameters : enter the values of the CHIMERA™ hologram that you want to receive from us.
The script has created automatically an hologram frame in the 3DS scene to help you to center it and to adjust your scene size.
holoplate width/height : enter the dimensions of the final hologram.
Viewing distance : enter the distance between the final hologram and an observer (= camera distance in 3DS max).
Pixel size :select 250µ/500µm hogels

Mastering Type : Choose between H1/H2 and Denisyuk mastering type. (please see part "Mastering Type information" below of this document)

Hologram Parallax parameters : select the kind of hologram that you wish to receive. If the rendering is too long in full, then select half parallax.

Hologram Parallax parameters : select the kind of hologram that you wish to receive.

Horizontal Parallax :

- Horizontal rendered images : The number of point of view you want horizontally (min recommended 192; best 768).

- Effective Camera Rotation : Calculated automatically (not to touch).

Vertical Parallax :

- Vertical rendered lines : The number of point of view you want between the two positions min pos and max pos.
- Max/Min Pos: range of the different vertical point of view (usualy2/3 high and 1/3 low).

Note: the 2 diagrams below may help you to understand the parameters.
Note: For half parallax only you can choose the vertical viewing position.

Match Hologram and Model Coordinates :
xyz offsets : helps you to bring the center of the hologram at the right place in your scene.

3DS Scene parameters :
scene scale : adjust easily with a zoom effect the hologram frame to your scene scale.

Output parameters :
Select output path & name : select the directory and name files for the images produced by the script.

Options :
Animation to render : select the range from 0, of the animations to be used in 3DSmax.
Enable animation : activate or not the animation effect in your hologram.

- Animation type : Choose how your 3DS animation should appear in your hologram : Horizontally or Vertically.
- From/to : Limit the range of your 3DS max animation to be used.

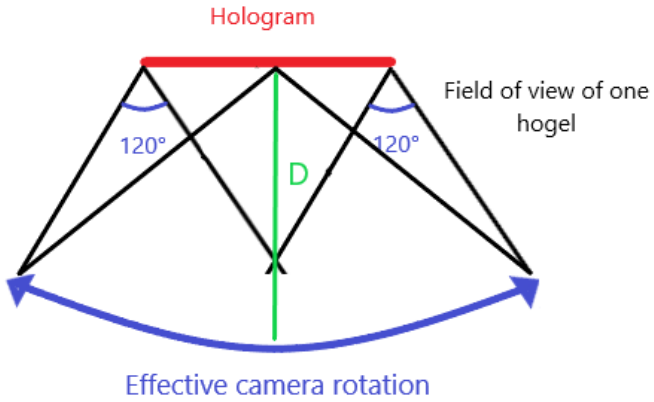
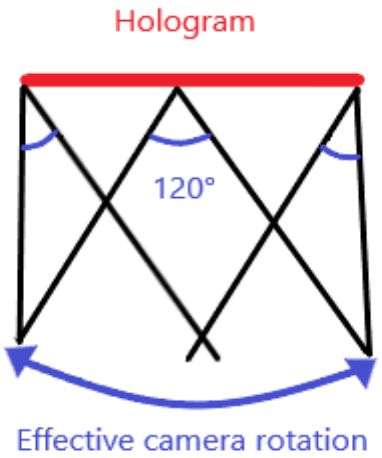
Rendering:
1st rendered line/last rendered line : Select the range of the vertical lines to be used .

Version 20 Feb 2023 CHIMERA 45° script for 3Dsmax

Default value for better hologram :

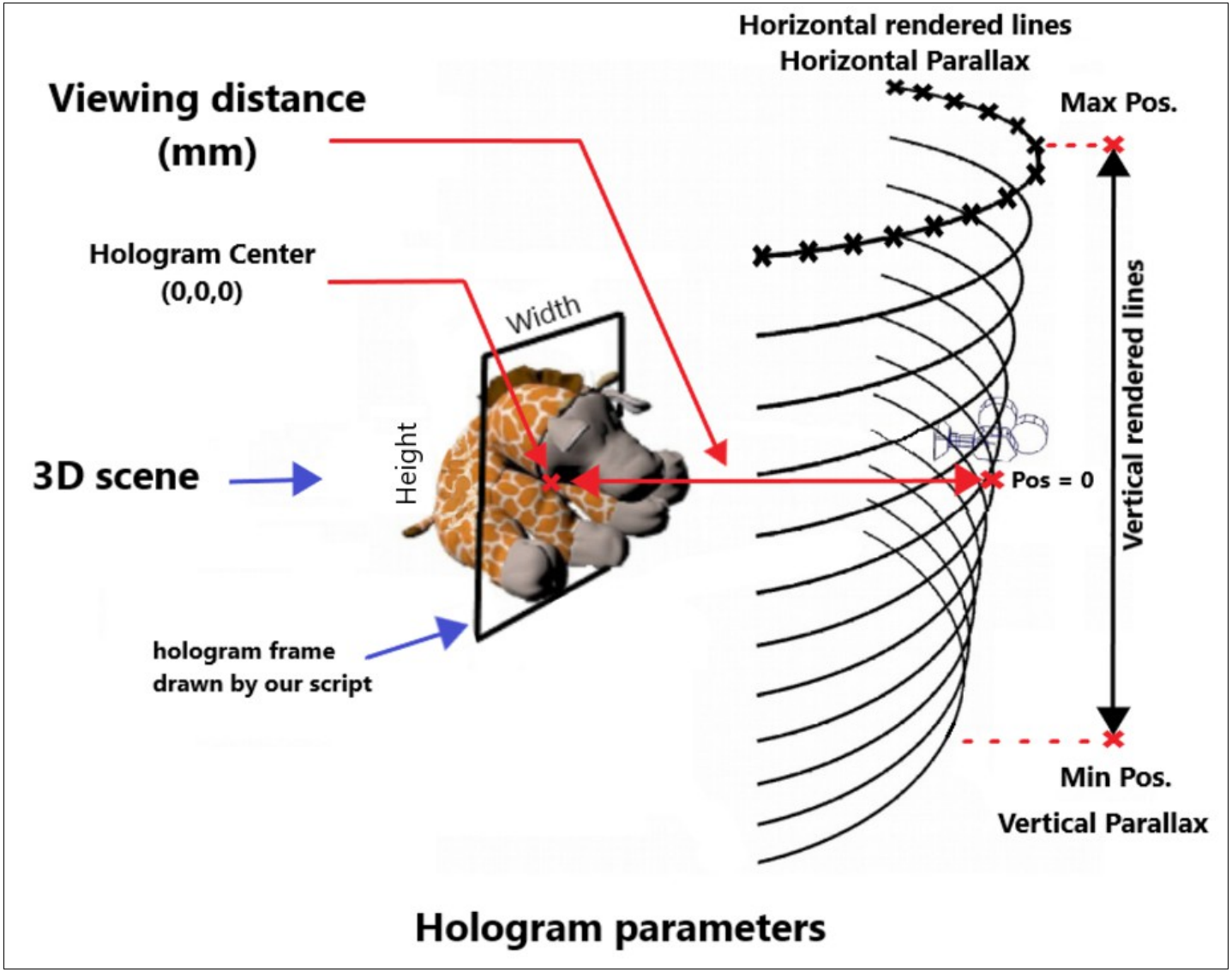
holoplate width/height	10x15cm	15x20cm	20x30cm	30x40cm
Horizontal rendered images	768	768	768	768
Vertical rendered lines	178	178	178	178

Mastering Type information :

Denisyuk mastering type	**H1/H2 mastering type**
For the Denisyuk style : E**ach** hogels has 120° **field of view.** When an observer moves in front of the hologram, a parts may be seen black.  Changer Field of view par “effective camera rotation”	For the H1/H2 style : **Only** the center pixel has 120° of **field of view.** **Othe hogels have a limited angle.** When an observer moves in front of the hologram t**he hologram cuf-off sudently and fully at the edge of the H1 window.** 

Version 20 Feb 2023 CHIMERA 45° script for 3Dsmax

Parameters to be provided to us (.ini file generated by the 3DS script): Viewing distance, Max pos, Min Pos, Hologram width and Hologram height



Version 20 Feb 2023 CHIMERA 45° script for 3Dsmax

Example of the CHIMERA 45° script for 3DS max with a model.