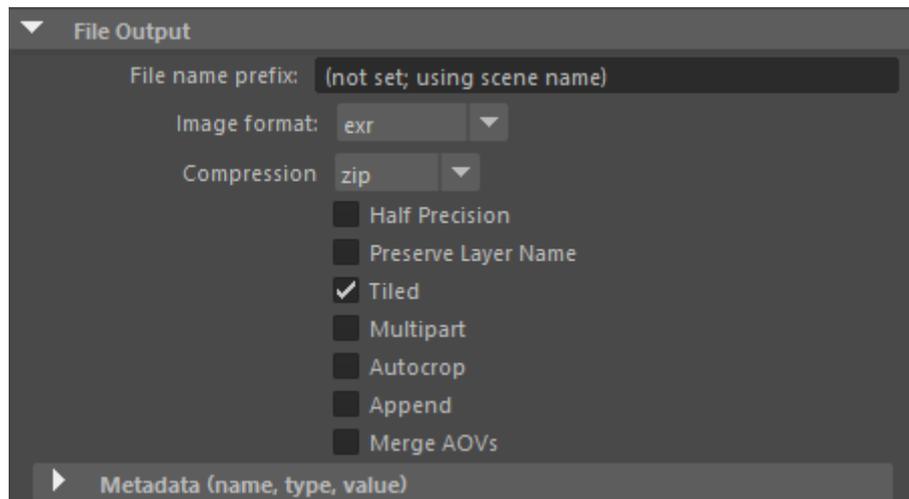# EXR

ℹ️ Multichannel EXRs are possible using Merge AOVs.

Compression

Specify the type of compression used.

Half Precision

Specify whether 16-bit floating-point (binary16) is used (as opposed to full 32-bit precision). This provides a sufficient degree of precision in many cases while keeping data usage down.

Tiled

Allows you to save the file in scanline or tiled mode. Scanline may work better with composition packages like Nuke or Fusion. If tiled is off the whole image buffer size will be allocated all at once for all the AOVs present in the scene. If enabled, Arnold will save the buckets as they are rendered, which reduces memory taken up by image buffers.

Preserve Layer Name

If checked, the data of the different AOVs will be stored in the EXR in layers with the names of the AOV, and not the RGB.

Autocrop

Autocrop removes pixels where alpha and all other channels are zero. It contains a bounding box around the content of the image, which informs a compositing application which part of the image needs to be identified and which part can be skipped. This is particularly useful when you have a CG element that is not filling the whole frame (see image below). Only a small part of the image will be processed in the compositing application. Therefore it will only load the data window and skip the rest.
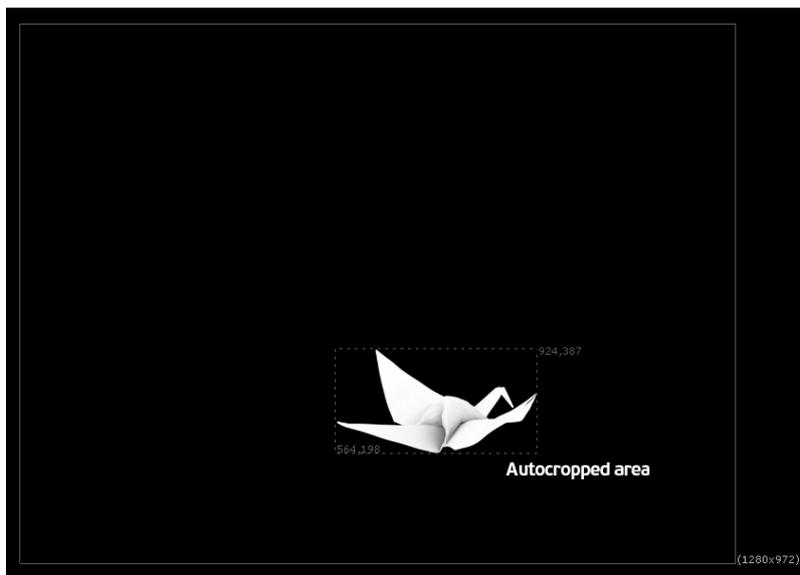
The autocropped area that has been identified in a compositing application

Append

This option enables render check-pointing (or 'append mode'). By setting the corresponding output driver's . append attribute to true, Arnold will preserve previously rendered tiles and only work on the missing ones, appending them to the output files. If no image is present, the render will proceed as normal, creating a new image. If image specifications do not match, the render will be aborted.

Merge AOVs

This option saves multiple AOV layers into one multi-channel EXR file. It writes all enabled AOV's to one image file, naming the layers in the EXR with the name of the 'RenderPass'.

Metadata

It is possible to write out custom EXR metadata using integer, float, point 2, matrix 16, and string values.

> ⓘ EXR overscan options can be found in the Render Settings.

Multipart

The EXR driver can render AOVs as separate images (parts) in a multi-part EXR file (merged AOVs, in contrast, renders AOVs as layers in a single-part EXR). Multi-part works with either scanline or tiled EXRs and is enabled with the **driver_exr.multipart** boolean parameter.

- Noice does not work with multi-part EXRs.
- Append mode (check-pointing) does not support multi-part EXRs.