



FIELD GUIDE / 2026 EDITION

You Probably Do Not Need **Photoreal**

What actually creates the perception of realism, why the last ten per cent costs the most, and a table matching image treatment to the job it has to do.

START HERE

Realism is not resolution

People asking for photorealism almost always describe it in terms of sharpness and detail. That is not what makes an image read as real. A high-resolution render of an impossibly clean room looks like a high-resolution render. The things that persuade the eye are, without exception, forms of imperfection.

WHAT ACTUALLY DOES IT	WHY THE EYE BELIEVES IT
Wear where hands go	Door edges, switch plates, the arm of a chair, the second stair tread. Real rooms are polished exactly where people touch them and dull everywhere else.
Asymmetry	A cushion not centred, a blind at a slightly different height to its neighbour, books of unequal depth. Perfect alignment is the fastest tell there is.
Believable grime	Rain streaks under a sill, dust in a reveal, a faint tide line on paving. Not dirt for its own sake — the specific dirt that gravity and water produce in that place.
Light that misbehaves	Colour bleeding off a red wall onto a white ceiling, a bright floor lifting the underside of a table, the slight haze of a bright window edge. Real light bounces, tints and scatters.
Imperfect surfaces	No material is uniformly rough or uniformly glossy across a whole panel. Variation across a surface is more convincing than a higher-resolution texture on a flat one.
Lens and sensor behaviour	Slight falloff at the corners, a grain structure, highlights that roll rather than clip. Your eye has spent a lifetime learning what a photograph does.
Depth cues	Something in the near foreground, something losing contrast far away. A single flat plane of subject reads as a drawing however well it is rendered.

All seven are craft decisions, and none of them is a setting you can buy by paying more for a bigger render. Which leads to the uncomfortable part: paying more does not reliably buy realism. It buys the last increments of it, slowly.

STEP 01

The curve, and where your money goes on it

Effort against believability is not a straight line. The early work moves the image enormously. The final stretch — the part between “clearly a good render” and “could be a photograph” — absorbs a disproportionate share of the time, and most images never need to travel it.

STAGE	WHAT IS HAPPENING	WHAT IT ADDS
Geometry and camera	Correct model, correct lens, correct standing height.	Almost everything. A well-framed simple image beats a badly framed detailed one every time.
Light	Direction, time of day, how the space is actually lit.	The mood, and most of the credibility. Cheap relative to its effect.
Base materials	Right colours, right reflectivity, right texture scale.	Moves the image from diagram to convincing. Still fast work.
Dressing and detail	Furniture, planting, objects that suggest occupation.	Large gain, and the stage most often skipped by cheap work.
Imperfection pass	Wear, grime, asymmetry, surface variation, all placed deliberately.	The jump people describe as photorealism. Slow, manual, and where the real skill sits.
Final tenth	Micro-detail, sub-surface behaviour, per-object tuning, long render times, many iterations.	Visible mostly at large sizes and to trained eyes. This is the expensive end of the curve.

We build and render in 3ds Max because it gives the better result. Real-time carries the animation and the economics — work that took roughly a week to render can come back in minutes.

DIM KUZMENKO, CO-FOUNDER, MAVERICK FRAME STUDIO

That is the same decision in production form. Two routes exist, they cost very different amounts, and the right question is never “which is better” but “which does this particular image need to be”. Choosing the expensive route for an image that will be seen at 900 pixels wide on a committee screen is not thoroughness. It is waste.

STEP 02

Match the treatment to the job

Find the row that describes what the image is for. The treatment in the middle column is not a downgrade — in several of these rows it communicates better than a photoreal image would.

WHAT THE IMAGE IS FOR	TREATMENT THAT FITS	WHY
Early concept, internal	Massing render, flat or lightly shaded, no dressing	Keeps the conversation on form and arrangement. A finished-looking image at this stage invites comment on the sofa.
Option testing with a client	Identical simple views, one variable changed	Comparability is the entire value. Realism actively gets in the way of it.
Planning and massing studies	Neutral clay or lightly materialised model, real context, honest light	Reads as evidence rather than promotion. Many reviewers trust it more, precisely because it is not selling.
Board or investor presentation	Clean, well-lit, moderately detailed — one photoreal hero at most	Decisions here rest on numbers and confidence. A consistent set beats one spectacular image and five weak ones.
Competition submission	Deliberate, stylised, consistent across the set	A distinct visual language is often worth more than fidelity. Photoreal work in this context can read as generic.
Public consultation	Accurate, plain, honestly lit, honestly planted	Anything that looks glossy will be treated as a sales pitch and discounted accordingly.
Website and social	Good, not exhaustive. Seen small and briefly.	The final tenth is invisible at the size at which it will be viewed. Spend it on having more images instead.
Sales of an unbuilt home	Photoreal, no compromise	Somebody transfers money on the strength of this image. It has to survive being compared to the finished thing.
Product and brand campaign	Photoreal, no compromise	It sits beside photography, at scale, and any gap between them is read as a quality gap in the product.
Large-format print, showroom	Photoreal, no compromise	Viewed from half a metre away. This is the one case where resolution and micro-detail genuinely earn their cost.

STEP 03

How to buy less, deliberately

Say the purpose, not the quality

"Photorealistic" in a brief is a request for the most expensive version of everything, and it is usually a proxy for "I do not want it to look cheap". Write the purpose instead: where it will be seen, how large, by whom, and what decision it has to support. A competent studio will propose the right treatment, and it will often cost less than you budgeted.

Buy the stages separately

Ask for a clay or base-material version at an agreed point, approve geometry, camera and light there, and only then authorise the finishing work. You will kill some images at the cheap stage, which is the point. Late changes to framing or light are what make projects expensive, not rendering.

Three questions to ask before authorising the expensive stage

WHERE WILL THIS IMAGE BE SEEN, AND AT WHAT SIZE?

WHO HAS TO BELIEVE IT, AND WHAT ARE THEY DECIDING?

WOULD THREE SIMPLER IMAGES SERVE THAT DECISION BETTER THAN ONE PERFECT ONE?

The third question changes more budgets than the other two. A single hero is a habit rather than a strategy, and most decisions are better served by coverage.

Where photoreal is not optional

Three cases, and they share one feature: the image will eventually be held against reality by somebody with a financial reason to look closely.

- Somebody is buying an unbuilt thing on the strength of the image
- The image sits next to real photography and must not lose
- It will be printed large and viewed from close range

Everywhere else, the honest answer is that the last increment of realism is a preference, and it is being paid for out of a budget that could have bought three more views, a short animation, or the option set you decided to skip.



Maverick Frame production render.

WORKING WITH A STUDIO

Cost, and how to brief it

Two things people ask us before anything else. Both answers are short.

COMMISSIONED WORK	FREELANCER	STUDIO
Single exterior still	\$100 – 300	\$250 – 600
Single interior still	\$120 – 350	\$300 – 700
Package, 5–8 views	\$600 – 1,500	\$1,500 – 4,000
Animation, per minute	\$1,000 – 3,000	\$3,000 – 8,000

Market ranges we are willing to publish. Turnaround and revision-round figures are deliberately not in this table: ours vary too much by project type to state as a benchmark, and an invented number here would be worse than none.

How to brief it — shorter is better

This is the opposite of what most people assume. Four things:

- What you need — **how many images, and of what**
- The plans and elevations, as they are
- A few reference images for mood and light
- One clear line on what the images are *for*

Inflating a small job into a fifty-page specification backfires: taken literally it comes out ugly, and it misleads the people doing the work. Tell them the intent and let the team that does this daily handle the detail.

The mistake that costs the most

The biggest failure we see is not choosing the wrong vendor. It is **timing**. People start looking only after the first supplier has already failed and the deadline is on fire, then choose in a panic.

Line up and vet rendering partners **before** you need one. One, ideally a few, briefed and ready to take work. It costs an afternoon now and saves a project later.

10+

YEARS RENDERING
VISUAL STORYTELLING

350+

BRANDS & AGENCIES
EMPOWERED GLOBALLY

95%

CLIENT
SATISFACTION RATE

40%+

OF OUR COMMISSIONS NOW
INCLUDE MOTION OR 360



MAVERICK
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STUDIO

When the image has to hold up, **talk to us**

We are a CGI studio: architectural and product rendering, 3D modelling, animation, 360 tours and VR. Ten years, 350+ brands and agencies, and the kind of work that still looks right when somebody counts the windows.

Send us the plans and a line on what the images are for. You get a scope and a price, and no obligation to use either.

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maverickframe.com/contacts

SEE THE WORK

maverickframe.com/gallery

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Maverick Frame production render. · Cost ranges are market ranges as of 2026 and are not a quotation.

