



The Moviestorm guide to previsualisation

A brief introduction

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Note that all screenshots are taken from Windows versions of the software. Mac versions may differ slightly.

WHAT IS PREVISUALISATION?

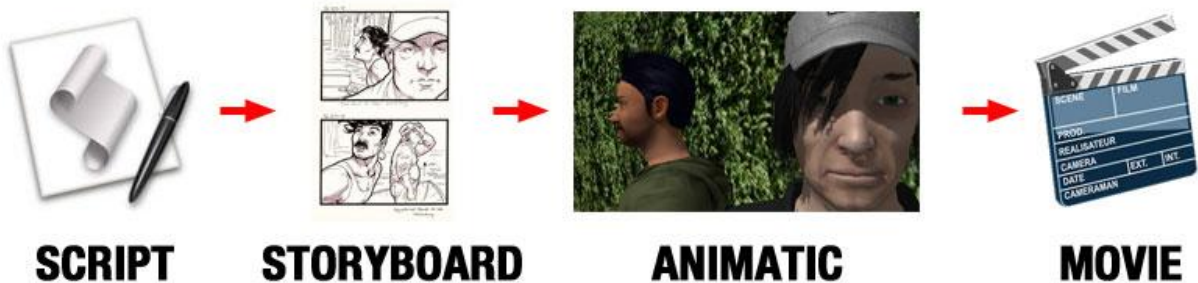
Previsualisation is a powerful pre-production technique that has the potential to reduce production and post-production costs and also help you make better movies. Some proponents of previsualisation claim that this technique can reduce shooting time by up to 50% and cut post-production time by up to 25%.

The concept of previsualisation has been around for longer than most filmmakers realize. It was pioneered by Francis Ford Coppola (right) in the 1970s, and was subsequently adopted by major directors like Steven Spielberg. It's now used by most major studios on their big production. The word itself, however, is comparatively new.



Usually abbreviated to **previz** (also spelled previs, pre-viz or pre-vis), it's generally taken to mean creating a rough version of the film that replaces or enhances the traditional storyboard. It can be filmed in live action (as favored by directors such as Robert Rodriguez) or animated in 2D or 3D. An animated previz is usually called an **animatic**.

Some directors like to previz the whole movie, others only previz the most complex sequences and stick with a storyboard for the rest.



WHY DO AN ANIMATIC?

Animatics offer several major advantages over traditional storyboards.

A storyboard is like a comic book version of a film, just showing you the key frames and some annotations. This doesn't give you as much information as you really need to film the movie. Even the simplest form of animatic includes dialog and the basic choreography and camera moves. This immediately adds in three new elements missing from a storyboard: time, movement, and sound.



A typical storyboard: all the key images are there, but no indication of how long each shot lasts, how the camera moves, or what happens during the shot.

When you view an animatic, you can immediately see how long the scene is going to be, whether the planned edit will work as intended, and whether you have any issues such as line-crossing. Everyone - cast and crew - can then watch the animatic and get a clear idea of what the director wants them to achieve.

Once you start working with animatics, you often find that shots which looked great in the storyboard don't work well in the final edit - they're jarring, or they take too long and have to be cut for storytelling reasons. Some directors describe this as **pre-editing**, since you're making all your editing decisions in pre-production.

The advantage of using animatics over doing live action previz is that you are not constrained by what you can easily film. You can create an animatic on a laptop whenever and wherever it's convenient for you, and you can easily film crowd scenes and stunt sequences, or film in exotic locations. You can easily go back and reshoot earlier versions, and you don't need to worry about having actors available when you want to work.

Animatics in practice

A scene called for one character to explain some back story to four others. The director wanted to show how each of the four people were reacting differently as he was speaking. His storyboard called for close reaction shots on each of them, cutting back and forth to the speaker. When we came to create an animatic in Moviestorm, we realised the speech wasn't actually long enough to get all those shots in without feeling rushed. If we'd shot it as per the storyboard, the editor would have been left with these four options in post-production:

1. Cut it as per the storyboard, and accept that the sequence is going to be rushed.
2. Skip the cuts back to the speaker, and just use the reaction shots. We tried blocking that, and it looked awkward.
3. Try to do something fancy with the audio, introducing pauses to make the speech longer.
4. Ask for a reshoot - an absolute last resort.

What we did after reviewing the initial animatic was to spend a couple of minutes trying out three other blocking options in Moviestorm:

1. A single reaction shot that moved across all four faces in closeup - this didn't work well, and we decided to stick with static shots.
2. A single reaction shot that had all four people in it - this didn't work either, as we couldn't get the facial detail we were after.
3. Physically grouping the listeners so we could get two in each shot and just doing two cutaways. This worked much better, but meant we had to adjust the placement of those characters earlier in the scene so that they were less spread out and the grouping was consistent. Originally they were arranged with A next to B, C off to one side, and D seated, but the new version called for B and C in the same shot, and A standing right behind D's chair. The original grouping made for a good master shot, but we changed it for a better edit later in the scene.



Left to right: original placement of characters as per storyboard; revised placement after using animatic; new two-shot of B and C not in original storyboard developed from animatic.

Making the animatic achieved two important things. First, we identified the potential problem in pre-production, before even dressing the set, let alone shooting anything, and were able to find a solution within a few minutes - less time that it would have taken to redraw the original storyboard! Since the new cut involved re-choreographing an earlier part of the scene, we were able to consider options that wouldn't have been possible if we'd found the problem on set once filming had started. And second, we were thinking about editing at a very early stage. We weren't just concerned with getting great shots: we were extremely conscious of how they'd look once there was motion and audio in there, and how they'd work together in the final cut.

WHO CAN USE PREVIZ?

Until recently, previz has been almost exclusively the preserve of big studios and high-budget commercials. Creating an animatic usually requires a team of skilled modelers and animators using high-end tools like *3D Studio Max* or *Maya*. However, with the advent of affordable, easy animation tools such as Moviestorm, filmmakers of any scale can now benefit from previz.

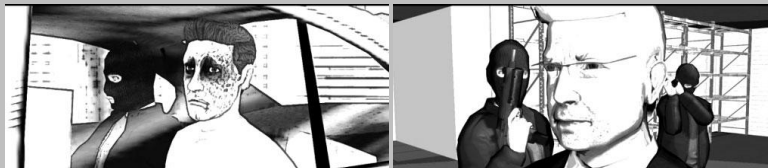
D.L. Watson, from Eugene, Oregon, has been making movies since 2005. Two years ago, D.L. suffered a serious injury while working out in the gym, and had to give up his day job as a Radio Shack salesman.

He's been using his time to practice his film-making skills, and has tried many different tools and techniques. For one recent film, *Graphic: A Risky Business*, he used a blend of Moviestorm and live action. His latest live action film, *The Letter*, was storyboarded using a Moviestorm animatic (below).



"It's all about finding the right tools for the job," he says.

"Moviestorm is great for storyboards, even if you don't use it in your film. When I saw Moviestorm, I knew it was what I needed for my science fiction film *The Grey People*. It's affordable too. When you're in my situation, that's important."



Moviestorm allows directors to create their own animatics, without needing to be able to draw, animate or create 3D models. It's a quick process - a practiced Moviestorm user can block out a two-minute scene in under half an hour, and a complete film in a weekend. As a result, even the smallest film crews can make use of this technique and see immediate savings. It also means that the director can be closely involved in the previz process; instead of using a storyboard artist to create the initial storyboard, and then handing it over to an animation department for the animatic, the director can get hands-on.

APPROACHES TO ANIMATICS

There are two main ways to treat animatics. Both are useful in different ways, and what they achieve is different. You can use animatics to create an advanced storyboard, or you can use them to do a complete practice run on your movie.



The **minimalist** approach includes as little detail as possible and simply adds motion. This allows the director, DoP and editor to see how the film will flow and get a clear idea of the duration of each scene. It should be approximately the same duration as the final movie. Ideally it should include spoken dialog and key sound effects, but these can be done as subtitles if you prefer. Wherever possible, cheat to save time. Use stock images as backdrops, skip any unnecessary animation, and don't bother with lighting, visual effects or detailed set dressing.

For some types of project, this is sufficient: it's a fast, effective way to test out whether the director's initial vision will work well, allows the editor to ensure that there will be enough coverage to assemble the final movie, and allows the DoP to spot potential issues with what equipment might be required. The scriptwriter can see which scenes aren't working, and immediately rewrite them. A minimalist animatic even helps the actors: they can see when they're going to be on camera, and how the director wants them to perform each scene.

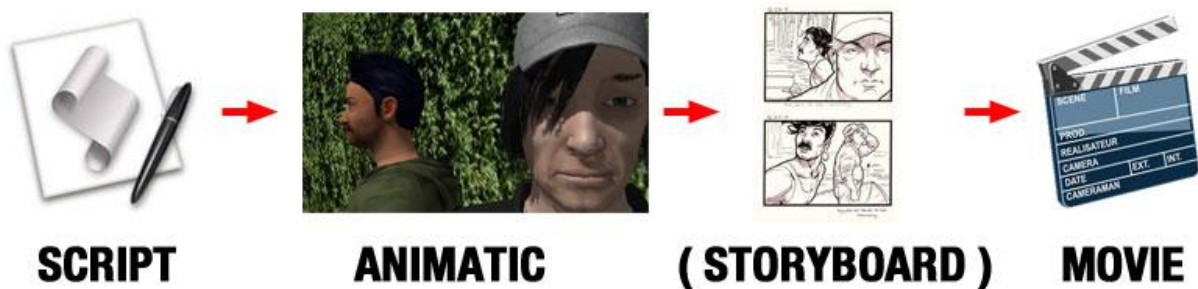
The **detailed** approach, as favoured by most large budget productions, involves creating something as close to the final movie as possible. This extends to the set design, character performances, sound, music, visual effects and every other part of the film. Effectively, you're creating a blueprint for the final movie. By doing as much creative work as possible in pre-production, you're reducing the risk of expensive mistakes later.

This can potentially affect many different parts of the movie production process. You can see, for example, exactly which parts of the set will appear on screen, and ensure you're not wasting budget building things that will never be seen. You can get your composer working on the music before you've even started shooting, and have it ready to drop into your final cut as soon as you start editing.

INTEGRATING ANIMATICS INTO THE PRE-PRODUCTION PROCESS

If you're taking the minimalist approach, you can create your animatic roughly when you would normally create your storyboard. The traditional method is to use the storyboard as a basis for your animatic. If you're familiar enough with your previz tool, you may find that you can dispense with the storyboard altogether and go straight to the animatic. You can then use the animatic to create a storyboard if the rest of your crew prefer that.

(See *Using Moviestorm to create storyboards* for more information on this topic.)



If you're taking the detailed approach, you may need to rethink some of the way you do pre-production, as you can bring in a lot of the creative work at a much earlier stage than normal. This is often easier for small crews who don't have to work with external companies.

Every senior member of your production crew can be involved in creating the animatic. Just as they're involved in the actual movie, they fulfil the same role on the practice version. This is an opportunity for them to try out ideas and experiment before things get expensive and without committing to anything. Ensure you have constant review sessions with your principal crew, and you may find some surprisingly creative ideas emerging: the sound guy may come up with something that inspires the set designer to create something neat, which in turn gets your DoP thinking about another way to film the opening to the scene... be open to ideas, try them out, and see how well they work in context.

The Electronic Cinema

Some directors and editors like to use Francis Ford Coppola's [Electronic Cinema](#) system. At the earliest possible opportunity, put your animatic into your usual video editor. Then, as you shoot your film, simply replace the animatic footage with the final footage. If you're using the detailed method, you can also replace the audio from the animatic with the final audio. Using this system, the idea is that you always have a "complete" film to review, and you can easily keep track of your progress.

USING ANIMATICS ON SET

One innovative use of animatics is on set in a live production. It makes a handy reference for every member of the cast and crew as they can all see exactly what you're aiming to shoot during each day. It can also be useful in a number of surprising ways, as these examples show.

Example 1: when is a problem not a problem?

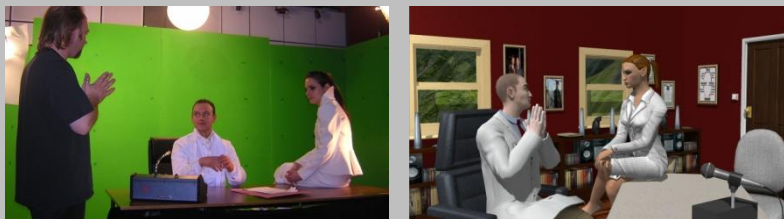
In one shoot, we had a problem with the dolly track, which had a bump in it. As we pulled the camera out, there was a jump part-way through the move, no matter how hard the crew tried to keep it level. We referred to the animatic. The first AD pointed out that half-way through the move, we were going to cut to a reaction shot anyway, so we could easily cover the bump in the edit. This saved many hours of trying to get a bump-free camera move by fixing the dolly track or using a steadicam.

Example 2: trying out ideas

During one session, the DoP suggested that we could get an interesting view of a character entering the scene by getting a floor level shot of her high heels clicking on the linoleum floor. In less time than it would have taken to re-set the cameras and lights, we did a test of the shot in Moviestorm and cut it directly into the animatic. The director and editor decided that the shot didn't fit with the scene, and pointed out that we had already shot footage of another character speaking as she entered, so we stuck with the original version. This saved us shooting something which seemed like a good idea, but would have eventually ended up on the cutting room floor.

Example 3: green screen

On a green screen shoot, particularly when moving the set around to film reaction shots, the actors and camera crew were frequently getting confused as to where the door to the CG room was, and which side of the line they were on. By referring to the animatic, it was easy to see where to place the camera and where the actors should look to ensure continuity, and also helped the actors relate to their surroundings.



Left: director Phil South helping a scene from The Sacrament on green screen at Bristol Old Vic Theatre School; right, still from animatic of The Sacrament showing composited scene