



# MOTION ANALYSIS

## **Motion capture in the post-COVID era**

### **How studios are transforming to adapt**

With insights from Centroid Motion Capture and Goodbye Kansas Studios.



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# The opportunity is (virtually) huge

Welcome to the “new normal.” Even with the gradual easing of restrictions around the world, we can expect people to spend more time at home, which means more time gaming and streaming content.

It’s not surprising then that the global gaming, VR and animation industries have weathered the COVID-19 storm reasonably well, with many studios now on the cusp of a huge opportunity as the world embraces virtual production.

Live-action shoots are on hold in many places, so game makers, film makers and streaming services are looking to VFX and virtual production to future-proof their projects using remote mocap, crowd simulation, face and body replacements, green-screen compositing, and digital FX.

For those who get it right, the opportunity is huge. The global 3D motion capture market – which was valued at \$145.53 million in 2019 – is expected to reach \$283.53 million by 2025.

The global video game market is forecast to be worth \$159 billion in 2020 and the global content streaming market is expected to double from \$24.8 billion in 2019 to about \$50.3 billion in 2020. Netflix added 26 million new customers by July 2020, compared with 28 million during the whole of 2019.

It’s clearly a good time to be in this industry, but it’s also a challenging time, with studios needing to adapt fast as they embrace new working practices.

To learn more, we interviewed leaders from **Centroid Motion Capture Studios** and **Goodbye Kansas Studios** to find out how the pandemic has affected them and what they have been doing to future-proof their companies.

You can learn more about Motion Analysis and the studios we work with by visiting <https://www.motionanalysis.com/industries/animation/>

Warm regards,



Lucy Keighley  
Vice President Global Sales  
Motion Analysis Corporation

1. <https://www.weforum.org/agenda/2020/05/covid-19-taking-gaming-and-esports-next-level/>
2. <https://www.prnewswire.com/news-releases/content-streaming-witnesses-huge-surge-in-demand-amid-covid-19-lockdown-global-market-expected-to-be-worth-50-3-billion-in-2020--301060079.html>
3. <http://www.netimperative.com/2020/07/17/netflix-sees-customer-surge-amid-lockdown-but-warns-of-slowdown-ahead/>
4. <https://www.mordorintelligence.com/industry-reports/3d-motion-capture-market>

# Meet the contributors



**Anton Söderhäll**

**Executive Producer, Goodbye Kansas Studios**

Anton begun his career eleven years ago as Director and Producer of music videos and commercials. A few years later he moved on to Motion Capture. Since then he has been involved in the production of over 30 successful AAA game titles alongside various film, commercials and interactive projects. Striving to push creative and technical boundaries has kept him as the go-to guy for clients such as EA, Warner Brothers Games, Sony, Square Enix and DICE.

Anton loves running, Thai boxing, watching a great movie or playing a game that challenges conventions regarding tech, quality and/or narrative.



**Philip Stilgoe**

**CEO, Centroid Motion Capture Studios**

Phil is the CEO at Centroid Motion Capture. A Motion Capture veteran of 24 years, he has worked on many award-winning movies and games on both sides of the Atlantic. Following a number of successful Indian productions he has recently expanded his experience and expertise to Mumbai, in the form of Centroid India.

Phil was part of the team which first supplied optical facial data for a Hollywood feature, capturing Gary Oldman as 'Spider Smith' for 'Lost In Space' in the mid 1990's. To this day Phil continues to push the boundaries of virtual production and character pipelines across the entertainment industries, and now sits on educational steering committees to support the next generation of digital performance practitioners.

## Counting the cost and embracing transformation

Centroid had just opened an impressive new motion capture facility in the UK when COVID-19 struck and the country went into lockdown. "It was frustrating that we had to pause our MoCap shoots just as our new studio was unveiled, but we worked hard and used the time to make sure every measure was put in place so that we could reopen safely", explains Phil.

"We were able to remain operational throughout the pandemic and saw an increase in requests from clients who had planned to shoot elsewhere," says Anton. "But we still had to transform our in-studio operations and embrace remote working in a way we had never done before."

## The rise of the remote

Around the world, people have become accustomed to working remotely – and many have come to prefer it. This can work in a studio's favor: reducing travel, office and parking costs while allowing it to tap into global talent.

As a matter of necessity, many MoCap studios now conduct some form of remote shooting.

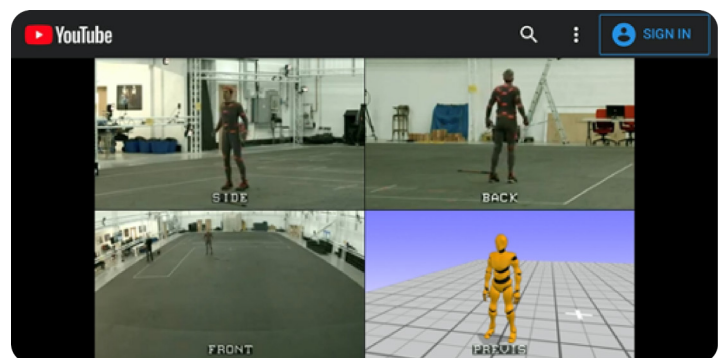
"Since March, Goodbye Kansas has been operating fully on remote shoots with about 10 different clients, everything from more 'simple' stuff such as single actor shoots to fairly complex full pcap cinematic shoots," explains Anton.

"We send the actors thorough pre-production packages with explanations of the procedure from a technical standpoint, as well as the more ordinary scripts and character briefs and reference material."

"In cases where actors have not been able to come to the stage, we've had to bring in body doubles to act out the scenes, while recording the face for lip-sync during ADR sessions. In post we've then merged the two different performances to make sure acting, eye-lines and lip-sync all fit together."

Centroid offers a remote viewing service to all clients, in which it live-streams video reference feeds from the stage (via YouTube) and uses Zoom to communicate. Phil explains, "We have three witness cameras in the studio and a live previz feed that we share via YouTube so our clients can see what's happening and collaborate without attending the shoot in person."

"You certainly lose something when you don't have personal contact," he says. "There's no substitute for having the Director on the floor with the talent, but this work-around has been very successful for us. It's not the same as being hands-on, but we have been surprised at how well it works!"



Centroid uses three witness cameras and a live previz feed, streamed via YouTube so that clients can see what's happening and collaborate without attending the shoot in person



## Business as usual for most post production teams

Fortunately, post production teams at both Goodbye Kansas and Centroid were working remotely before the pandemic struck, so disruption was minimal.

"We had a full work-from-home solution in place already, so it was relatively painless to switch the entire company over. In fact, we were all up and running in a week or two," explains Anton. "The Goodbye Kansas management team shared loose guidelines on how to run projects and operate remotely. Our team leads, supervisors and project managers have to work harder to make sure everything runs smoothly - there's certainly a lot of pressure on them, and a lot more logistics to handle."

"We saw a slight decrease in productivity, but it was not as significant as expected. It helps that most of our people are full-time employees, so they have worked with each other for years. It's much easier to manage experienced teams than a group of freelancers who don't really know each other or your processes."

Centroid's post production team was also accustomed to working remotely, and was pretty much unaffected, using Perforce and WhatsApp groups to collaborate.



## Create a safe studio

As staff return to work, studios are working hard to ensure that they are compliant with the latest COVID-19 safety standards.

Centroid has taken all possible precautions, employing a COVID Supervisor to manage policies and ensure that every measure is properly enforced. "Fortunately, our MoCap stage is really big so we're able to enforce social distancing quite easily when we shoot," explains Phil. "The offices are big too, so we have set up a one-way corridor system, cordoned off sections of the studio, made certain seats unavailable, etc.

In addition to the UK Government's '**5 Steps to Working Safely**' guidelines, Centroid has implemented the following precautions:



Installing **6 hand sanitiser** stations around the studio.



The facility and work surfaces are regularly **deep cleaned and sanitised**.



**PPE** (face shields, face masks and latex gloves) ensure marking actors/HMC fitting and make up application is safe.



Shoots are staffed with a skeleton crew to limit the numbers on stage. All post production crew are **working from home**.



There is ample space both on and off the stage to enable all attendees to **social distance**. All floor areas have been marked out with tape to act as a guide and constant reminder to social distance.



We have **two entry/exit points** to the stage so a 'one way' system has been implemented.



All attendees provide their own sustenance to **prevent cross contamination**.



If talent need to **interact** as a requirement of the performance, we would focus on sourcing talent that live together – this isn't always possible but we know several stunt/teams and actors who cohabit.

## Laying the foundation for a future-ready studio

There's no doubt that motion capture and virtual production are here to stay.

If your studio can find a way to offer cost effective, future-proofed MoCap services that aren't jeopardized by future pandemics, then you'll be well on your way to thriving in the post-Covid era.

And once some semblance of "normality" returns, you may even find that you have forged a new path by discovering a unique differentiator for your studio.

***"Virtual production has been a buzzword for a long time, but now it's really here. It is part of our new normal."***



**- Anton Söderhäll.**



# Introducing BaSix Go

## Lightweight mocap software for 3D character animation in a fraction of the time

BaSix Go is lightweight motion capture software that allows users to select an animated character, equip BaSix active markers, and then stream live animation data directly to animation packages. This can all be done in under a minute, without the use of a mocap suit.

While many optical motion capture systems contain features that allow for a range of mocap applications, BaSix Go is specifically designed with animation studios, game developers, and previsualization in mind.

BaSix Go simplifies and speeds up the animation and previz process. Setup and calibration of the system are quick, and the software is extremely easy to learn and use.

### Key features include:

- A simple, intuitive user interface
- Ability to immerse subjects within minutes
- Only requires the use of six BaSix active markers per subject
- A single BaSix active marker can be used to track a prop
- Compatible with all Motion Analysis motion capture cameras
- Compatible with all major animation packages, including Maya, Motion Builder, Unreal and Unity
- FBX skinning is supported

### Integrates with BaSix® suitless markers - fitted in under 60 seconds

BaSix Go integrates with Motion Analysis' suitless full-body active marker system, which includes six active markers that are easily secured using comfortable gloves, a visor, a belt, and foot straps. These can be put on in under 60 seconds.

**To see BaSiX Go in action, or to request pricing**

**Please Contact Us**

# About Motion Analysis

Motion Analysis Corporation has been an international industry leader in motion capture technology for over 35 years. Founded in Santa Rosa in 1982, it quickly established itself as an innovative force in the motion capture world.

Since inception, Motion Analysis has worked closely with renowned specialists to create continuously cutting-edge hardware and software solutions for a wide range of industries including video game design, studio broadcasting, AR, VR, biomechanics, product development, robotics and ergonomics.

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