

During the COVID-19 pandemic, Toppan has put first priority on mitigating the spread of infection both inside and outside the company and ensuring safety for employees of Toppan Group companies and business partners. To provide solutions to this urgent social issue, Toppan is also developing products and services that take full advantage of its resources.

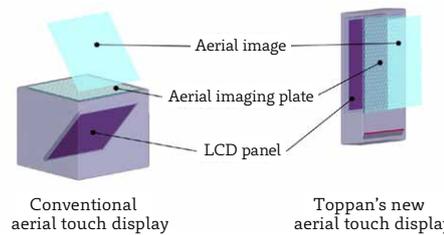
■ Development of the World's First Aerial Touch Display to Generate Images Parallel to the Panel

Demand has risen for the use of contactless touch panels as a measure to prevent the spread of COVID-19. Toppan has leveraged its unique optical and structural design technologies to develop an aerial touch display with high visibility and a slim form (50% slimmer than conventional devices) that means it can be embedded in walls.

Features of Toppan's Aerial Touch Display

- Has an original space-saving structure whereby images are generated parallel to the LCD panel (world's first).
- Generates bright, clear aerial images and achieves a luminance roughly five times that of conventional products (comparison by Toppan).
- Equipped with contactless sensors and can be operated without touching the screen using a pen or hands, even when hands are wet or covered by gloves.
- Has a function to prevent people nearby being able to peek at the screen, meaning it can be used in settings that require security, such as inputting passwords.

Toppan is aiming to create mass production prototypes before launching full-scale mass production, and expects the aerial touch display to be predominantly used for medical devices, equipment control panels for public facilities, and other facilities that require high-level security.



■ Three Types of Antiviral/Antibacterial Décor Sheet for Buildings and Furniture Certified by the SIAA

Toppan manufactures and sells décor sheets used on the surfaces of housing, buildings, furniture, and fixtures. The Company has now developed and launched sales of décor sheets with a special coating that can inhibit the growth of viruses and bacteria and significantly reduce the number of particles present. Toppan also obtained third-party certification from the Society of International sustaining growth for Antimicrobial Articles (SIAA) for three types of décor sheets in 2020: olefin-based in September, PVC-based in October, and coated paper in November. In antiviral performance evaluation testing using the novel coronavirus (SARS-Cov-2), Toppan's antiviral/antibacterial olefin décor sheet was shown to significantly reduce the number of virus particles present.

Related press release (in Japanese)
https://www.toppan.co.jp/news/2020/11/newsrelease_201113_1.html



■ SIAA Certification for Virusweeper™ Series

Under the "TOPPAN S-VALUE™ Packaging" range, Toppan provides value to people in the form of "SMART LIFE-VALUE™ Packaging." Toppan made use of its original printing and coating technologies to develop film-type Virusweeper™ packaging with antiviral and antibacterial functions in February 2021. This has made it possible to significantly reduce the number of virus particles on the surface of flexible packages, such as stand-up and pillow pouches. Film-type Virusweeper packaging obtained SIAA certification along with the carton-type developed in October 2020.

Related press release
<https://www.toppan.com/en/news/2021/02/newsrelease210218e.html>



■ Launch of Online Exhibition Platform V-MESSE

Toppan has developed V-MESSE, a platform that covers all the functions needed to hold an online exhibition. Users can take advantage of every function required for events held in virtual spaces, including online booth construction, visitor management, online business negotiations, webinar streaming, log management, and questionnaires. With the COVID-19 pandemic making the holding of exhibitions, events, and seminars challenging, V-MESSE provides a framework that responds to the increase in needs for online exhibitions.

Toppan can also provide every element of support, including content production, planning, proposals, and related operations.

Related press release (in Japanese)
https://www.toppan.co.jp/news/2020/09/newsrelease_200911_1.html



■ Supporting the Smooth Operation of Vaccination Centers with the VoiceBiz® Multi-language Speech Translation Service

Toppan has equipped the VoiceBiz® speech translation service with new set phrases (in 17 languages) related to vaccination and is providing it free of charge as a multi-language guidance service to public-sector organizations operating vaccination centers. VoiceBiz uses multi-language speech translation technology developed by Japan's National Institute of Information and Communications Technology (NICT). By making it available, Toppan is supporting the smooth operation of vaccine centers catering to diverse people, including foreign nationals residing in Japan.

Related press release (in Japanese)
https://www.toppan.co.jp/news/2021/06/nsrelease210608_1.html



Set phrases related to COVID-19 vaccination

■ Wholesale Sales Launched for Face Shield for Eating and Drinking Developed Using Results of Research on the Fugaku Supercomputer

In March 2021 Toppan launched wholesale sales to the retail industry of face shields for eating and drinking, which were developed in collaboration with Suntory Liquors Ltd. Development was based on the results of research by RIKEN using the Fugaku supercomputer. The design was made available as open data, but Toppan is also selling premade face shields to drive further expansion and wider use in society. This initiative is an example of businesses implementing workable countermeasures based on scientific insight provided by the Fugaku supercomputer, and Toppan, Suntory Liquors, and RIKEN are working together to contribute to overcoming the COVID-19 pandemic.

Related press release
<https://www.toppan.com/en/news/2020/12/newsrelease201208e.html>



■ Launching Online Tours that Provide Experiences of Traditional Japanese Culture

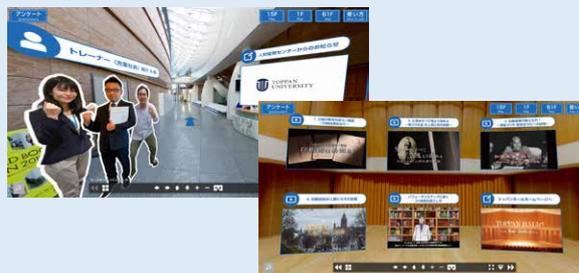
In September 2020 Toppan and Toppan Travel Service launched Profound Tourism Online, a service that provides highly immersive online tours by combining cutting-edge virtual reality (VR) visuals and interaction with cultural experts. Internet-based streaming that enables users in multiple locations to get a taste of traveling is fused with virtual experiences using VR and other content themed on cultural assets. In addition to offering a new form of tourism experience, the service addresses the issue of how to create content presenting the appeal of traditional Japanese culture and showcase it to the world.

Related press release
<https://www.toppan.com/en/news/2020/09/newsrelease200910e.html>



Creating a VR Online Training Center in a Virtual Space

Toppan VR Online Training Center faithfully recreates the Toppan Koishikawa Head Office Building and is comprised of TOPPAN Entrance, TOPPAN VR Hall, TOPPAN VR Academy, and TOPPAN HR Mall. Training for new recruits has been held completely online for two consecutive years. The VR training center was introduced for the April 2021 intake and allows employee trainers to also participate in the virtual space without visiting a physical office. This initiative is contributing to mitigating the spread of COVID-19 infection and ensuring the safety of employees.



Related press release (in Japanese)

https://www.toppan.co.jp/news/2021/03/newsrelease210322_1.html