

# News Release

FOR IMMEDIATE RELEASE

**Hitachi Provides a Free Cloud Service for 3D Procedure Manuals  
Using Hitachi's Assembly Navigation System to Support the  
Manufacturing of Ventilators, Which Are Essential  
in Response to the COVID-19 Pandemic**

*Providing and making available 3D procedure manuals that are immediately understandable, thereby supporting improved production of ventilators*

**Tokyo, June 5, 2020** – Hitachi, Ltd. (TSE: 6501, "Hitachi") today announced that the company will provide a free cloud service for 3D procedure manuals using Hitachi's assembly navigation system to support the manufacturing of ventilators<sup>(1)</sup>, which are essential during the spread of novel coronavirus.

Hitachi's assembly navigation system is a system for converting 3D CAD design data of finished products manufactured through design processes into 3D procedure manuals that are immediately understandable to the workers on the floor. Now, the ventilator design specifications (3D CAD data) made available free of charge by healthcare company Medtronic (headquartered in Ireland)<sup>(2)</sup> are incorporated and this system will publish the assembly processes after each process is automatically made into a procedure. Starting today and for one year<sup>(3)</sup>, this will be provided through a cloud service (SaaS) and can be easily navigated in a web browser on a computer or tablet.

In the future, the plan is to create a community dedicated to exchanges of views between users and offer a service for sharing knowhow about operational procedures and so forth.

- (1) Please agree to the terms of use for offering the service free of charge. In addition, we may limit the number of applications accepted to a certain number. In principle, one account will be issued per company. Please contact us for the countries and regions where this service is provided.
- (2) Medtronic Shares Ventilation Design Specifications to Accelerate Efforts to Increase Global Ventilator Production (Medtronic news release on March 30, 2020)  
<http://newsroom.medtronic.com/news-releases/news-release-details/medtronic-shares-ventilation-design-specifications-accelerate>
- (3) Under the Permissive License of Medtronic plc, Hitachi will only continue providing this free service until the earlier of the day one year after this news release is published or the final day on which the WHO's PHEIC is in effect.

Hitachi's assembly navigation system was commercialized in November 2017 as one of the Lumada<sup>(4)</sup> solutions that Hitachi committed to, as a way to generalize techniques and knowhow from the "High-Efficiency Production Model" developed at Hitachi's Omika Works (Hitachi, Ibaraki), thereby reducing the burden of workers and increase productivity at various manufacturing sites.

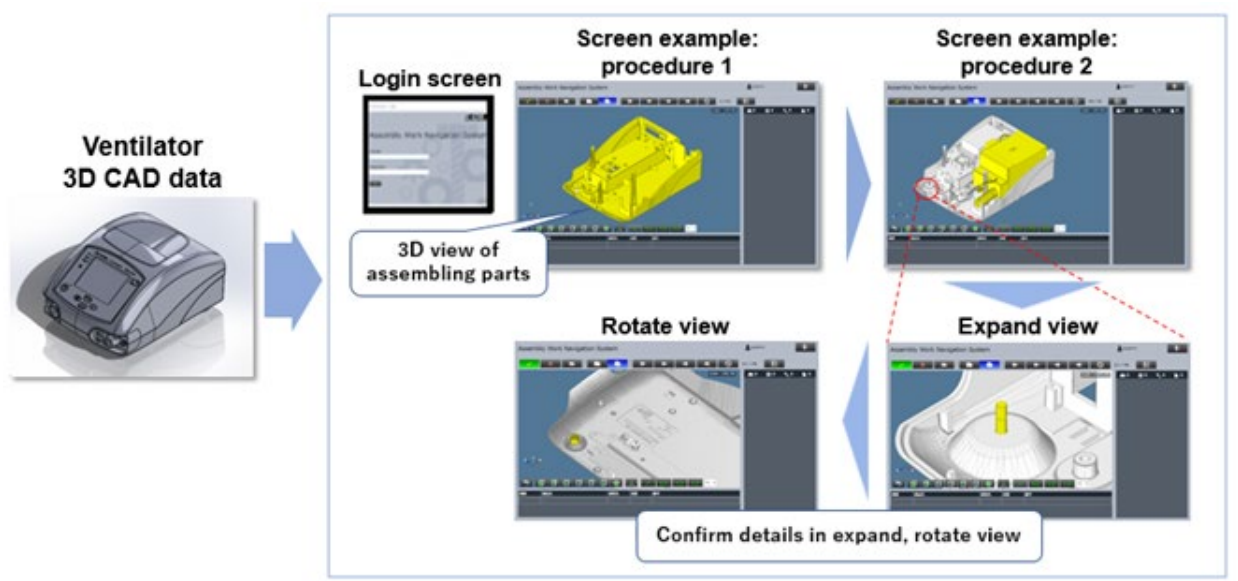
In general, designers created production drawings based on 3D CAD data, after which workers on the floor need to follow that plan as they do the assembly, but having to interpret specialized production drawings while doing the assembly puts a burden on the production site.

This system incorporates design and structural information from the 3D CAD data of the finished product, analyzes disassembly sequences and actions through an original algorithm, and automatically generates a 3D procedure manual with a suitable assembly order. Each operation is shown on one screen in a simple way according to the assembly order, removing the need for the worker to interpret the assembly order from a production drawing and thereby facilitating efficient assembly according to the various procedures displayed on the screen. Moreover, it automatically generates and provides procedures that are immediately understandable, where one can check designs and structures in detail by rotating, enlarging, and shrinking them.

(4) Lumada: Hitachi's advanced digital solutions, services, and technologies for turning data into insights to drive digital innovation

Hitachi is prioritizing the health and safety of customers, partners, employees working globally as well as their families, and all other stakeholders, and so is contributing to the prevention of the disease's spread.

### Making available assembly procedures using the assembly navigation system (image)



### **Hitachi's Omika Works**

Hitachi's Omika Works (Hitachi, Ibaraki), the developer and provider of the assembly navigation system, has provided information control systems for railways, electric power, water and sewage systems, and other important social infrastructure since it commenced operation in 1969, and has consistently engaged in everything from design to manufacturing of hardware and software as well as the operation and maintenance of overall systems. It won high marks in January 2020 for contributing to the stable provision and stable operation of important social infrastructure, and was recognized as one member of the "Lighthouse" global advanced factories at the World Economic Forum.<sup>(5)</sup>

(5) Hitachi's Omika Works Recognized as an "Advanced 4th Industrial Revolution Lighthouse" by the World Economic Forum (news release on January 10, 2020)  
<https://www.hitachi.com/New/cnews/month/2020/01/200110.html>

### **Note about trademarks**

All names of companies, organizations, and products indicated are the trademarks or registered trademarks of their respective companies or organizations.

### **Inquiries**

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Inquiry form: <https://www.hitachi.co.jp/controlsys-inq-e/>

### **About Hitachi, Ltd.**

Hitachi, Ltd. (TSE: 6501), headquartered in Tokyo, Japan, is focusing on Social Innovation Business that combines information technology (IT), operational technology (OT) and products. The company's consolidated revenues for fiscal 2019 (ended March 31, 2020) totaled 8,767.2 billion yen (\$80.4 billion), and the number of employees was approximately 301,000 worldwide. Hitachi delivers digital solutions utilizing Lumada in five sectors including Mobility, Smart Life, Industry, Energy and IT, to increase social, environmental and economic values of its customers. For more information on Hitachi, please visit the company's website at <https://www.hitachi.com>.

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Information contained in this news release is current as of the date of the press announcement, but may be subject to change without prior notice.

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