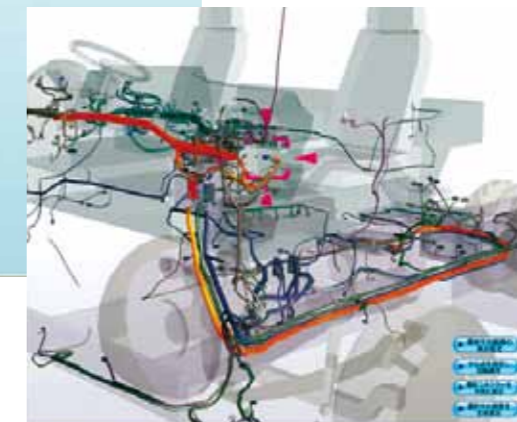


Taira Promote: Next-generation online i-manuals

Taira Promote, a technical content creator for automobile, machinery and other engineering products, is redefining the concept of manuals with its i-manuals online visual media. Created with 3DVIA Virtools and 3DVIA Composer, i-manuals leverage 3D design data and are a user-friendly and unique way to benefit from realistic and interactive content.



i-manual view of a plant system



Hino Motors, Ltd.'s wiring diagram of a truck. Drawings are available in both 2D and 3D, while interactive operation offers a precise wire connection view.

Companies that are looking for ways to accelerate the learning speed of their employees can implement online visual manuals that accurately represent technical and complex information to facilitate comprehension. By incorporating visual elements such as illustrations, lightweight 3D design data, real-time rendering and CG animation into a new online visual format called 'i-manuals', Taira Promote has earned itself a solid reputation in the user documentation market.

i-manuals contain advanced visual elements that improve user understanding over traditional online manuals that mainly use text and still images. Taira Promote has developed its i-manuals using 3DVIA Virtools and 3DVIA Composer, based on 3D design data. "By combining the 3DVIA Virtools 3D data

handling functions with its strong programming capabilities, we have been able to create a new type of interactive manual that enables quick and intelligent responses to user needs," said Tomoyasu Taira, Managing Director, Taira Promote.

USING INTELLIGENT DIAGRAMS TO SIGNIFICANTLY IMPROVE REPAIR WORK

i-manuals are used for truck wiring repair and maintenance work at Hino Motors, Ltd. Conventional wiring diagrams do not indicate clearly where wires are placed in the vehicle, making it difficult to know where to connect a certain connector pin. Using the power of 3D navigation with i-manuals, users are now able to use the online system to see enhanced visualization of the wiring diagram in both 2D and 3D, just by entering truck model codes. Users can manipulate and rotate the wiring diagrams so that they can see the diagrams from any angle, helping to improve the comprehension of the complex wiring system.

The i-manuals product fulfills three Taira Promote objectives: to enable a comprehensive understanding at a glance, to utilize design data without having to make any changes and to enable interactive communication between the creator and the end user. To achieve these objectives, Taira Promote set up a system where data provided by its clients is stored in a database so that the online visual manuals can be created efficiently. A user can easily download necessary data from the database and use it in 3DVIA Virtools and 3DVIA Composer to create manuals, disassembly instructions, factory assembly instructions and training materials.

DESIGN CHANGES NO LONGER AN ISSUE

In the past, CAD model formats had to be converted with various tools in order to be used for animation creation with CG software. If the conversion tools were not available for a particular system, the 3D CAD data could not be used. As a result, many people had to be involved during the creation process and various intermediate formats had to be used. This multi-step process increased the chance for errors as well as the overall processing time for modifications when there were design changes. "By using 3DVIA Virtools and 3DVIA Composer, a lot of mistakes can be avoided since digital CAD data can be directly incorporated by the system," said Takahiro Kano, Director, Engineering Division, Taira Promote. "Text can be added for explanations, along with cross-section and interior structure views, to quickly create a user-friendly online visual manual."

"3DVIA Virtools is fascinating because of its strong simulation technology, programming functions and API. Its compatibility with CATIA and other Dassault Systèmes products supports

our i-manuals concept of utilizing design data without making any changes," commented Kano. "With 3DVIA, we can also set up links to external equipment. For example, by connecting a wrench equipped with a torque sensor, it is possible to check whether the worker is following the instructions and tightening the bolt with the correct torque."

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INTUITIVE DATA HANDLING

"With 3DVIA Composer, we can manage the geometrical data and the animation scenarios separately, making file management easy while having the flexibility to handle design changes. Customers are also happy because data can be used "in an intuitive manner," commented Kano.

"In the future, we wish to leverage the scalability of 3DVIA Virtools by promoting better exchange with other systems. With a vehicle diagnostic machine, for example, we can provide automatic visualization of the area needing repair so that the user can order parts instantly," concluded Kano.

Taira Promote

Japan's Taira Promote Co., Ltd. specializes in the creation of technical media including training, instruction manuals, and presentation materials. Taira Promote was founded in 1964 and has since grown to a 103-employee company that creates online visual manuals to provide users with greater learning efficiency thanks to their interactivity and visual appeal.

For more information: www.3dvia.com

i-manual view of a plant system

