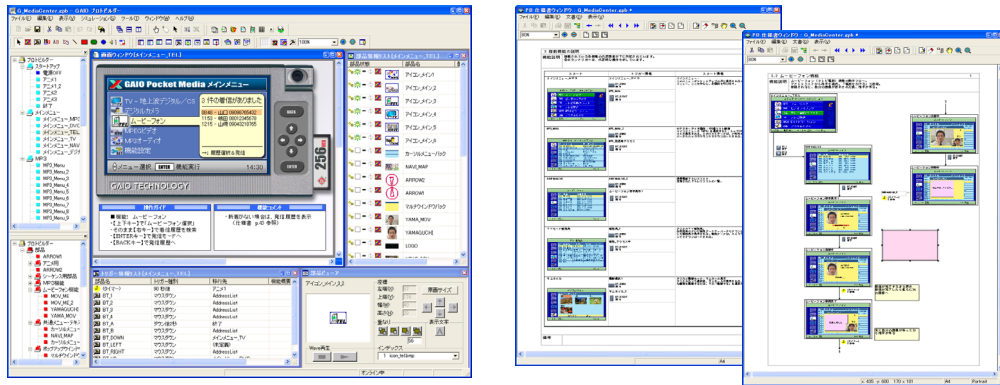


ProtoBuilder HMI Prototyping Tool

**HMI Prototyping Tool that Requires no Programming Skills
Creates On-Screen Virtual Product Models
Easy Specification Document Creation**

ProtoBuilder is an HMI prototyping tool that can create virtual models to aid in HMI specification testing before actual software development takes place. An added benefit of using this program is that it can help facilitate communication between HMI designers and embedded software developers, thereby resulting in smoother development. ProtoBuilder has optional support for NOVAS Inc.'s 'GAP FINDER' verification tool.



Helps Streamline Software Development

Many errors in embedded products are a result of flaws in the specifications designed during the first phase of development. Such flawed specifications are one of the most critical bottlenecks of efficient development, and can lead to repeated setbacks. By conducting a thorough specification verification prior to development, developers can proceed much more smoothly and create error-free and customer-satisfying products.

Facilitates Communication Between HMI Designers and Embedded Software Developers

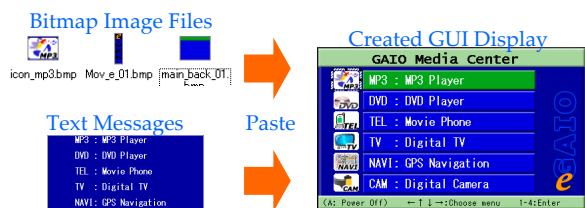
Virtual models created using ProtoBuilder can be manipulated on screen much like actual products. By including virtual models in the product specifications, software developers can quickly understand the HMI configuration, thereby speeding up development and reducing the possibility of misunderstandings. Also in the particular case where development teams are located in different regions around the world, ProtoBuilder can be a very useful tool for communicating amongst team members.

Obtain Better Customer Feedback

By presenting virtual models to the customer prior to development, the customer will gain a better understanding of how the final product will appear and function. This will allow the customer to give feedback on the design before implementation, resulting in a final product the customer will be more satisfied with.

Ease of Use

ProtoBuilder requires no software engineering skills, and is as simple to use as a word processor or presentation creating program. The application uses a simple point-click interface, and graphical display creation is as easy as pasting an image and inserting text.



Creates Specification Documents with Ease

The 'Printable Specification Document Creator' module can create specification documents, such as the operation flow specification sheet, with a configurable list of content including: state transition diagrams, state lists, state transition matrix charts, part lists, etc. These documents can be created from the virtual models through a simple drag & drop operation. In this manner quality HMI specification documents can be created with minimal effort.

(* The examples are shown above.)