

PANL

BY



Bridgetek
BRIDGING TECHNOLOGY

What do you want it to be?



PanL

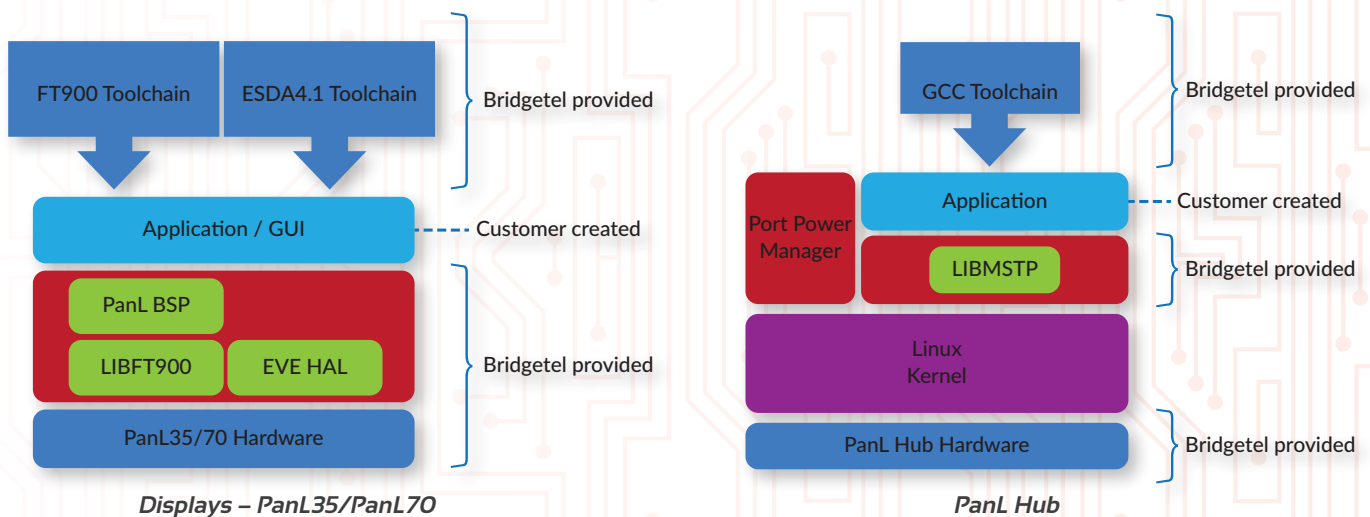
The smart solution for home automation, provides a framework for enabling smart device control in a variety of applications. Based on Bridgetek's award winning EVE technology, PanL offers a common control interface for all your smart appliances. Remove the need for a separate controller for lights, security or curtain control and connect with PanL.

A PanL control panel may be fitted in every room of a building enabling control from anywhere without the hassle of installing multiple apps on a smart phone or tablet and keeping it charged.

The GUI look and feel of the PanL control panel may be customised by the end user or installer to create a unique set of icons, buttons and imagery through a GUI based design tool EVE Screen Designer – ESD.

The PanL control boxes will interface with a PanL HUB which may be located anywhere in the building. This server may then be configured to support a variety of communications standards and protocols for different smart technologies.

System development and customisation



The PanL platform is a highly versatile platform enabling a variety of smart devices to be added / removed from the framework as the application need arises.

The PanL BSP implements the Master-Slave Token Protocol which is derived from the MSTP in BACnet. Further APIs in the PanL BSP enable communication between PanLx devices and PanL Hub

The PanL Hub bridges the 7 PanL segments together to form a combined network of PanLx and other PanL devices (e.g. PanL Relay, PanL DALI bridge).

In addition to providing hardware support to monitor and control smart devices the architecture of the system will allow apps from smart phones or tablets to access control of the environment set up.

Further bolt-ons will include support for 3rd party systems such as Alexa and data storage within the cloud.

Customisation of the final User interface is supported with an intuitive GUI tool ESD4.x



PanL 70



PanL 70 PLUS

The PanL 70 and PanL 70 Plus provide a full colour 7" TFT display with capacitive touch for monitor and control of all smart devices in an installation. These intelligent displays include interfacing capabilities to pair with the PanL hub or connect independently with PIR sensors and FM receivers enabling options for enabling / disabling the display or playing radio on the internal speaker. The display is supported by free GUI based screen development tools (ESD) enabling customers to develop and customise the look and feel of an installation.

The PanL 70 Plus adds an additional feature of an RFID reader embedded into the module, suitable for office or commercial premises where logging of room access may be required to track time and attendance or enhance security.

Product Specification:

- Integrated FT903 32-bit RISC microcontroller (MCU) with high speed performance
- No operating system
- In-built advanced FT811 graphics controller with display, touch and audio functionality
- 7.0" TFT LCD (800*480 pixels) with capacitive touch supported
- Capacitive touch screen supports with up to 5 touches and gesture detection
- 64Mbit Flash memory on board and high capacity microSD supported
- Real-time clock (RTC) supports for timekeeping up to 27hrs
- FM receiver supports frequency range from 50MHz to 115MHz
- Digital MEMS Microphone input
- 8 Ohm/1W Mono speaker output with PA
- A RGB full-color LED
- Support HW reset
- Support DFU download
- Support One-wire download
- Support external I2C devices
- Support external PIR sensor
- 4-DIP switch configuration for RS485 devices

PanL 35



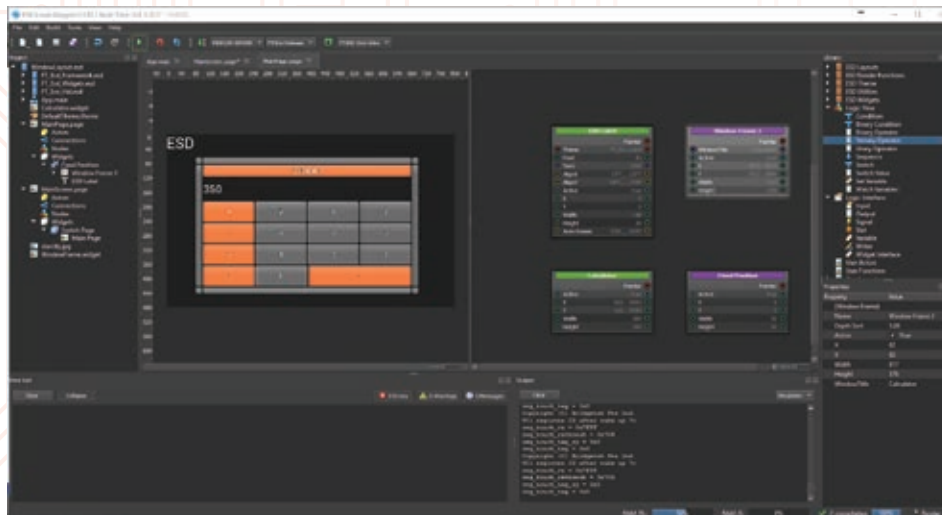
The PanL 35 offers many of the great features of the PanL 70 but in a smaller, 3.5" screen size. The smaller screen still delivers capacitive touch control and may be more appropriate for space constrained installations or as a compliment to the PanL 70 in a large network made up of master displays and satellite displays where less information needs to be displayed. Connectivity options of the PanL 35 also include RS485, FM receivers, audio speaker and MIC input.

Product Specification:

- Integrated FT903 32-bit RISC microcontroller (MCU) with high speed performance
- No operating system
- In-built advanced FT811 graphics controller with display, touch and audio functionality
- 3.5" TFT LCD (320*480 pixels) with capacitive touch supported
- Capacitive touch screen supports with up to 5 touches and gesture detection
- 64Mbit Flash memory on board and high capacity microSD supported
- Real-time clock (RTC) supports for timekeeping up to 24hrs
- FM receiver supports frequency range from 50MHz to 115MHz
- Digital MEMS Microphone input
- 8 Ohm/1W Mono speaker output with PA
- A RGB full-color LED
- Support HW reset
- Support DFU download
- Support One-wire download
- Support external I2C devices
- Support external PIR sensor
- 4-DIP switch configuration for RS485 devices



PanL HUB is the control hub of a PanL smart solution. The PanL HUB will bridge control and monitoring data between the smart device and the PanL 35 display panel. It enables a fully integrated network of devices to be accessed from a variety of PanL displays or mobile applications.



EVE Screen Designer

PanL displays are brought to life by intuitive GUIs developed using the EVE Screen Designer (ESD). Bridgetek's ESD is a fourth generation toolchain that offers a one-stop development environment supporting the visual design paradigm. ESD incorporates the PanL board support package (PanL BSP) and is capable of directly targeting PanL 35 and PanL 70 displays. By focusing on WYSIWYG development, it enhances GUI developer productivity. Smart widgets, animations, page transitions, user touch inputs are all connected via feature rich flow charting controls and the built-in code generator and simulator enable quick debug iterations which significantly reduce developer effort. Additional application logic may be added to fine tune the end result.

PanL Accessories

PanL RELAY controllers may be programmed to switch on and off AC or DC loads

PanL RFID is a plug in module to allow standard PanL displays to be enhanced with RFID capability.

PanL DALI controllers offer smart control of home and building lightings

¹ DALI – Digital Addressable Lighting Interface

PanL Room Manager



PanL Room Manager

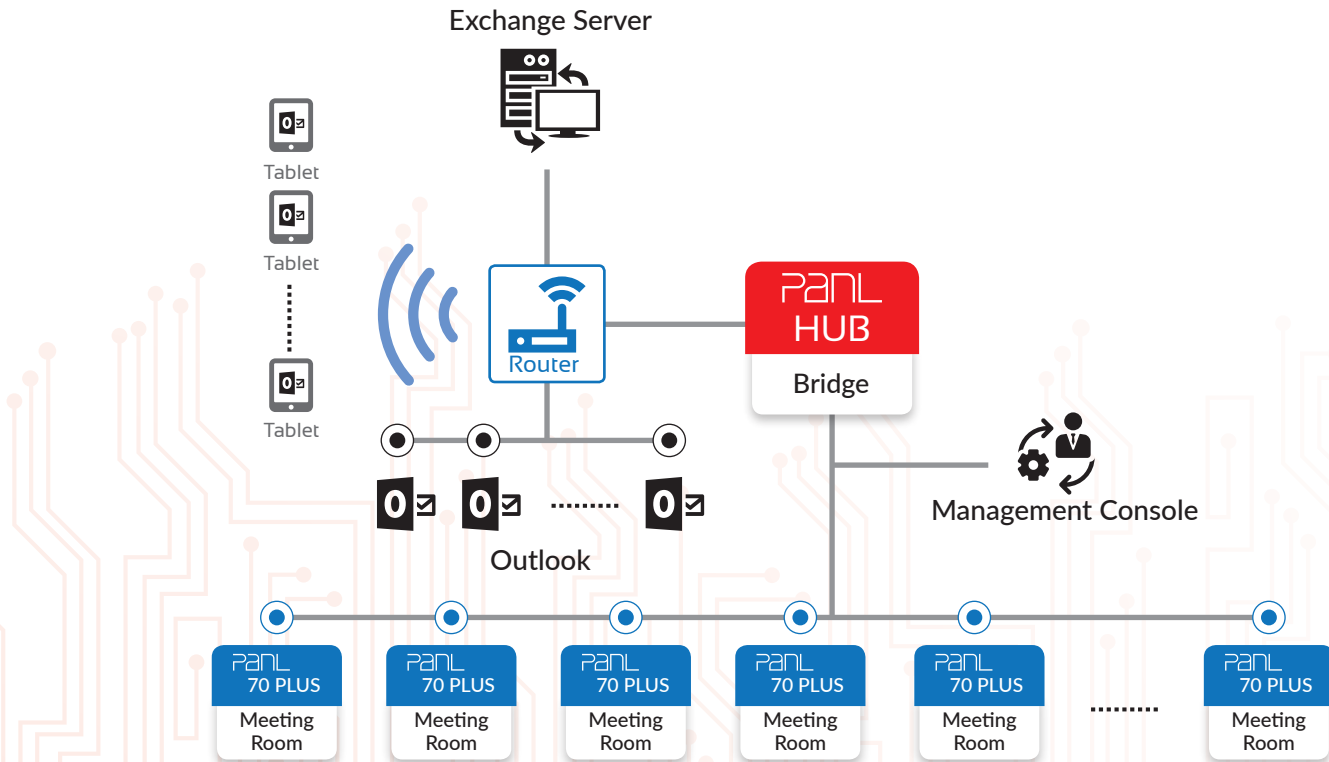
PanL Room Manager consists of several PanL HUBs and PanL 70 PLUS displays connected together via the PanL platform. The Room Manager is an intelligent meeting room booking system which integrates seamlessly with Microsoft Exchange Servers, 3rd party F&B services and equipment management systems. Rooms and other services are booked via Microsoft Outlook clients running on desktop PCs or mobile devices. Future versions shall support Google and Apple calendaring systems.

The Room Manager management console is used to administrate the entire system and implements access, authentication and authorization (AAA) control besides remote device management of PanL 70 and PanL 70 PLUS Display. The PanL 70 PLUS displays integrate an RFID reader for user authentication.

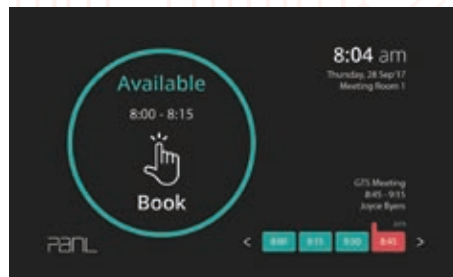
Additionally, PanL HUB offers multiple interfacing options such as RS485, Z-Wave, Wi-Fi and PoE to connect with a wide array of 3rd party smart sensors. Future versions of the PanL HUB shall support BLE Mesh and Zigbee.

PanL 70 and PanL 70 PLUS are 7" full colour TFT solutions with capacitive touch. These display panels are connected and powered through the PanL HUB.

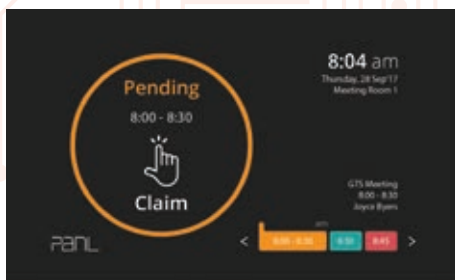




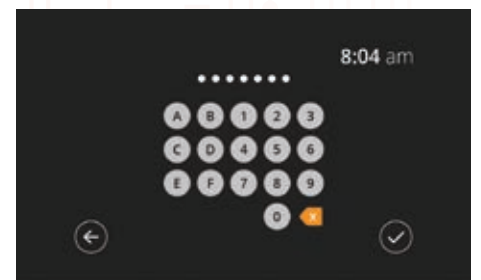
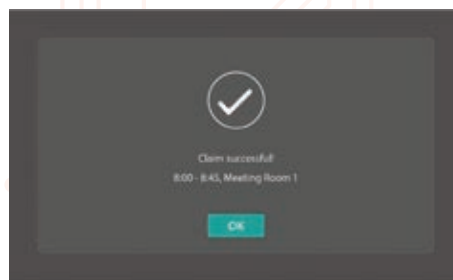
Setup Overview



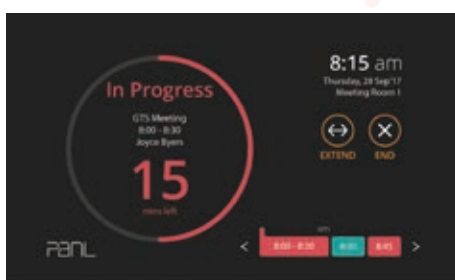
Home Screen



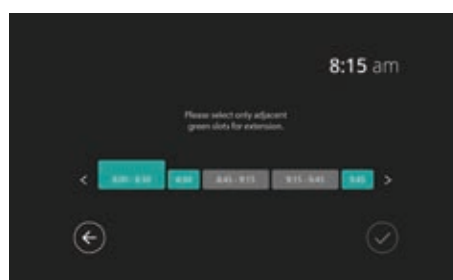
Meeting Room Claim



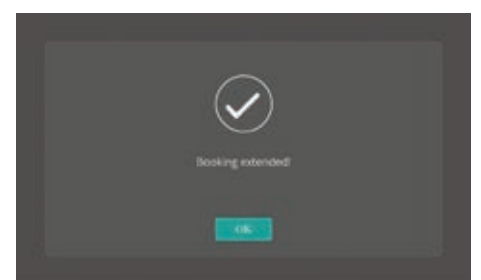
Security



Meeting in Progress



Extend Booking/New Booking



Successful Booking

About Bridgetek

Bridgetek is a leading global semiconductor and system solutions company providing high performance microcontroller units (MCUs), display IC products and developing innovative silicon solutions that enhance seamless interaction with latest connectivity technologies. The key objective from the company is to provide core bridging technology in order to support engineers with highly sophisticated, feature-rich, robust and simple-to-use product platforms. These platforms enable creation of electronic designs with high performance, low peripheral component requirements, low power budgets and minimal board real estate.

Bridgetek resources will be devoted to three particular product areas; the multi-award winning Embedded Video Engine (EVE) graphic controller ICs which enable engineers to implement more sophisticated human machine interface (HMI) systems, plus the unique and equally innovative performance-optimised microcontroller units (MCUs) with their expansive array of different connectivity options and industry-leading processing speeds. The third product area will be in complete solutions such as the PanL family of modules for smart technology integration. These solutions will integrate with multiple interface technologies to enable a consolidated user interface for many applications.

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