Sliding Panel Module Datasheet

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Summary

This datasheet provides the essential information to integrate Ultamation's Sliding Panel Module into program and create a simple, user friendly menu panel. It was originally created to work seamlessly with Ultamation's Lamina Theme, which utilises the sliding panel menu design to combine simplicity with style, offering a multi-global-award-winning user experience.

https://shop.ultamation.com/index.php/product/87-lamina-theme.

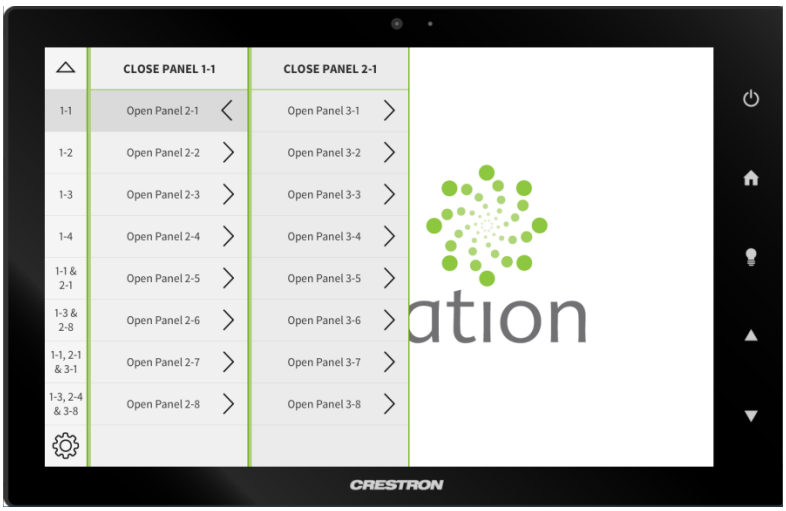
Module Elements

Each of the module files (see below) should be placed either in the host program's project folder, or to make the Sliding Panels modules available to all Crestron programs, in the SIMPL Windows installation's User SIMPL+ Modules (for usp and .ush) and in the User SIMPL Modules (for the .umc). This pdf should be placed in the same directories for SIMPL's F1 help function to work properly.

The module package consists of the following files, all of which are required:

- Sliding Panel Core (Ultamation) v1.00.usp & .ush
- Sliding Panel Interface Manager (Ultamation) v1.00.umc
- Sliding Panel Interface Endpoint (Ultamation) v1.00.umc
- Sliding Panel Module Datasheet (Ultamation) v1.00.pdf (this file)

There are two modules which work together to control panel selection (Sliding Panel Interface Manager) and panel visibility (Sliding Panels Interface Endpoint).



Panel Design

Ultamation's Sliding Panels design has 4 different panel levels.

Level 0

Level 1

Level 2


Level 3

Level 0 visibility is not controlled by the modules but is used as the point of entry. You are responsible for presenting this "conceptual" level. Level 1 panel selects and panel select "preset" routes buttons are placed here. In Ultamation's model, this is normally used to select the overall function, such as heating, audio, or room selection.

Levels 1-3 panels allow for each function to drill down into more detail. Each level shows only one panel at a time. Selecting a panel from the same level, will close the currently shown panel in that level and open the newly selected panel.

Multiple panels can be selected programmatically to open at the same time. This allows for quick "present" routes through the menus, without having to select each panel individually.

Closing a lower level panel (such as panel 2); also closes any higher level panels at the same time (such as panel 3).

Opening and closing of each level can be staggered. The feature waits until a timer runs out for each level, before triggering the next. This allows a panel to complete its transition animation, before moving on to the next.

The modules do not prescribe an orientation and can drive panels in any direction required by the UI. The example below shows the panels in a top-down orientation.

Level 0

Level 1

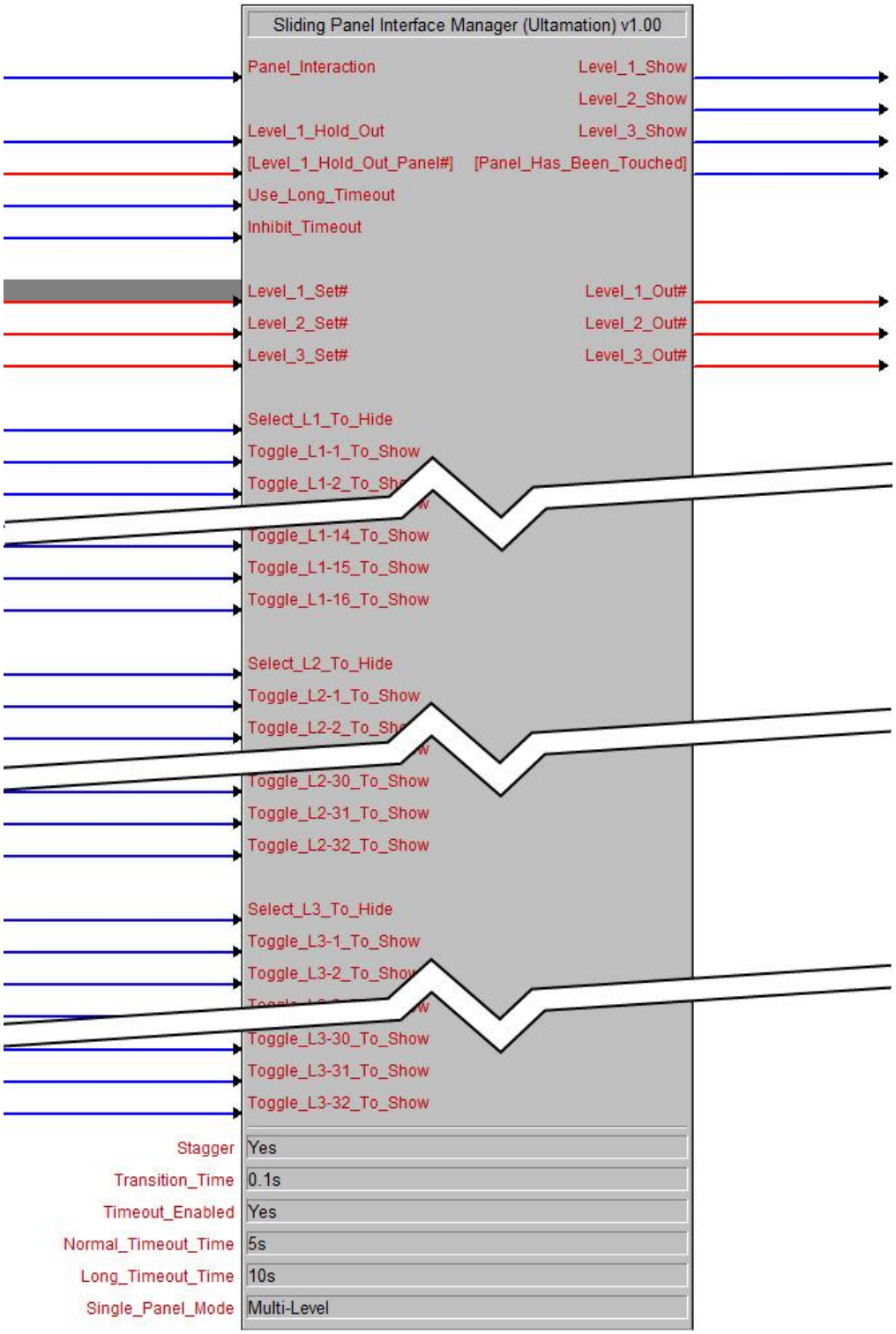
Level 2

Level 3

Multiple panel groups can exist in the same UI; for example left and right panels. An output signal is provided which triggers on activity and can be tied to other panels to force them to close so that they never overlap.

Sliding Panel Interface Manager

The modules should generally be used in pairs. The Sliding Panel Interface Manager is responsible for the timing and control of the panels. The Sliding Panels Endpoint Manager is a "helper" module that converts the numeric panel values to digital joins that can be used for visibility.



Module Parameters

Stagger – Selecting "Yes" staggers the level shows (visibility) going high or low, when more than one panel is selected to open or close at the same time. The time in-between is set in the parameter "Transisition_Time".

Transisiton_Time – Requires "Stagger" parameter to be set to "Yes". This is the time it takes for a panel level to complete its transition and allow the next panel start to open/close.

Timeout_Enabled – Selecting "Yes" will trigger a timer to start counting down when a level 1/2/3 show is high. The timer is restarted when "Panel_Interaction" signal is triggered. When the timer runs out, level 1/2/3 shows are set to low.

Normal_Timeout_Time – Requires "Timeout_Enabled" parameter to be set to "Yes". This value is used for the length of time it takes for the timeout to trigger.

Long_Timeout_Time – Requires "Timeout_Enabled" parameter to be set to "Yes". This value overrides the "Normal_Timeout_Time" parameter when "Use_Long_Timeout" is held high.

Single_Panel_Mode – Single panel mode, allows only one "Level_1/2/3_Show" to go high and will make the other signals go low, when a "Level_1/2/3_set " is selected. This is designed for UI's that have limited space and cannot show multiple panels at the same time, or when overlapping panels are semi-opaque, meaning only the top-most panel to be shown.

Module Inputs

Panel_Interaction – This signal restarts the timeout timer on a rising edge, if a level_1/2/3_show is currently high. This is used to stop the panel from closing when the user is touching the within the menu. This should be triggered whenever a control on a panel is touched to avoid the panels closing during user interaction.

Level_1_Hold_Out – When this is signal is high, "Level_1_Show" will remain high, even when "Select_L1_To_Hide" is triggered. This can be used to "force" the Level 1 panel out in some situations, such as when you are showing a home "dashboard" page.

Level_1_Hold_Out_Panel# – Selects the panel number to be held out with the "level_1_Hold_out" signal. This allows a specific Level 1 panel to be shown for the Hold Out function.

Use_Long_Timeout – When signal is held high, the "Long_Timeout_Time" parameter will be used, instead of the "Normal_Timeout_Time" parameter.

Inhibit_Timeout – When this is signal is held high, the panel timeout is disabled. The panels will need to be closed programmatically.

Level_1_Set# - Sending a value between 1-16 triggers the panel manager to move to the new Level 1 value (setting "Level_1_Out#" and set "Level_1_Show" to go high) based on the panel manager timing logic.

Level_2_Set# – Sending a value between 1-32 triggers the panel manager to move to the new Level 2 value (setting "Level_2_Out#" and set "Level_2_Show" to go high) based on the panel manager timing logic.

Level_3_Set# – Sending a value between 1-32 will trigger the panel manager to move to the new Level 3 value (setting "Level_3_Out#" and set "Level_3_Show" to go high) based on the panel manager timing logic.

Select_L1_To_Hide –Sets "Level_1/2/3_show" signals to low.

Toggle_L1-[1-16]_To_Show – Toggles the output of "Level_1_Show" from high to low and sets the output of "Level_1_Out#" to the corresponding panel number.

Select_L2_To_Hide –Sets "Level_2/3_show" signals to low.

Toggle_L2-[1-32]_To_Show - Toggles the output of "Level_2_Show" from high to low and sets the output of "Level_2_Out#" to the corresponding panel number.

Select_L3_To_Hide – Sets "Level_3_show" signal to low.

Toggle_L3-[1-32]_To_Show – Toggles the output of "Level_3_Show" from high to low and sets the output of "Level_3_Out#" to the corresponding panel number.

Module Outputs

Level_1_Show – This output is held high, when panel level 1 is to be shown.

Level_2_Show – This output is held high, when panel level 2 is to be shown.

Level_3_Show – This output is held high, when panel level 3 is to be shown.

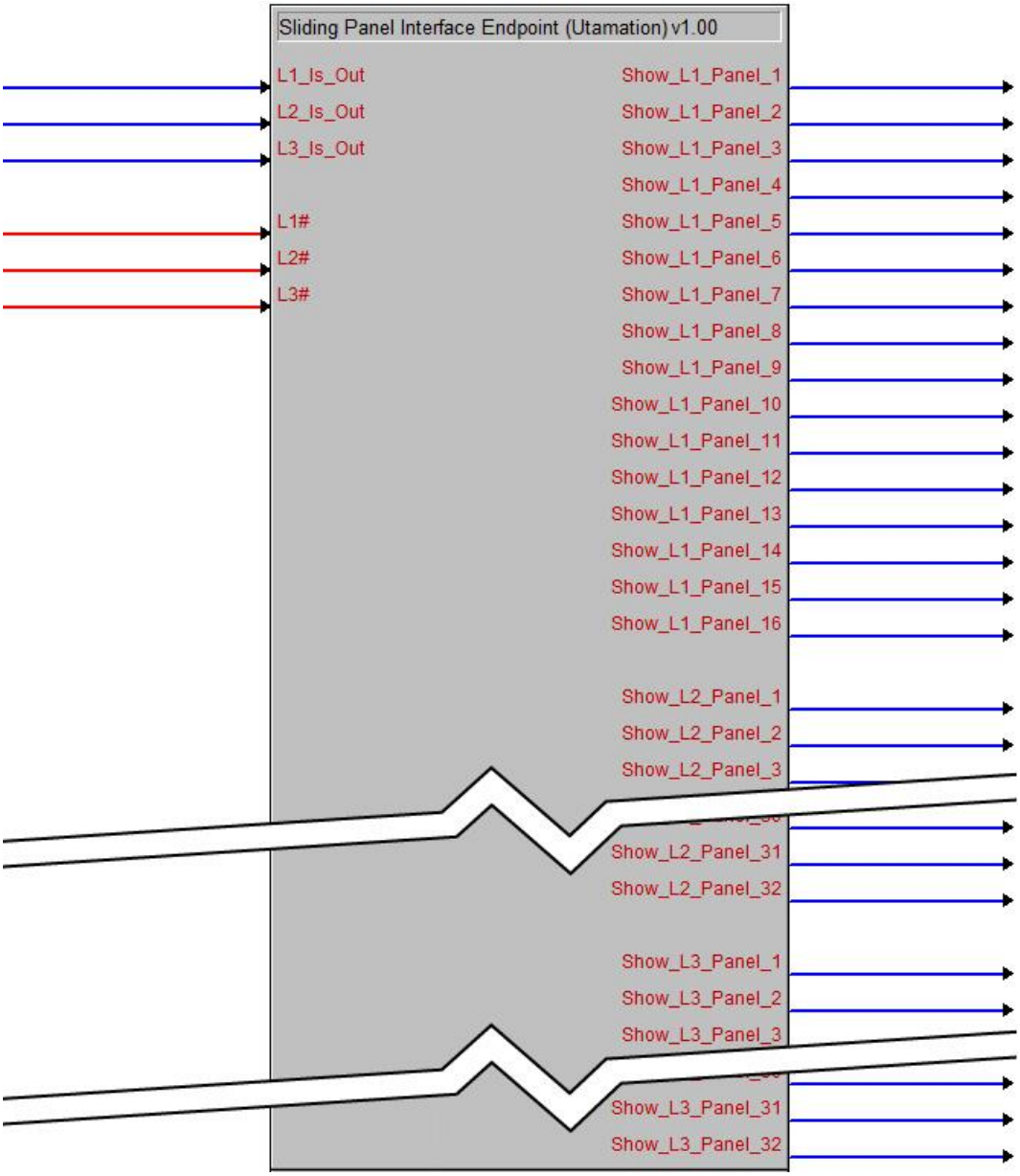
Panel_Has_Been_Touched – This output goes high when a panel is selected. This can be connected to another sliding panel interface manger, to close its respective panels. This allows two sliding panel interfaces to work together in same space and not overlap panels.

Level_1_Out# - This output matches the currently selected level 1 panel value (1-16).

Level_2_Out# - This output matches the currently selected level 2 panel value (1-32).

Level_3_Out# - This output matches the currently selected level 3 panel value (1-32).

Sliding Panel Endpoint Manager



Module Inputs

L1_Is Out – When held high, signal "Show_L1_Panel_(*)" will go high, where (*) corresponds to the anglog value of "L1#"

L1# - This value is used to set the corresponding Show_L1_Panel high, when L1_Is_Out is high.

L2_Is Out – When held high, signal "Show_L2_Panel_(*)" will go high, where (*) corresponds to the anglog value of "L2#"

L2# - This value is used to set the corresponding Show_L2_Panel high, when L2_Is_Out is high.

L3_Is Out – When held high, signal "Show_L3_Panel_(*)" will go high, where (*) corresponds to the anglog value of "L3#"

L3# - This value is used to set the corresponding Show_L3_Panel high, when L3_Is_Out is high.

Module Outputs

Show_L1_Panel_[*] – One of these signals is held high, when a level 1 panel is to be shown on the touch panel. Only one of these signals can be high at one time.

Show_L2_Panel_[*] - One of these signals is held high, when a level 2 panel is to be shown on the touch panel. Only one of these signals can be high at one time.

Show_L3_Panel_[*] – One of these signals is held high, when a level 3 panel is to be shown on the touch panel. Only one of these signals can be high at one time.

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The core software component is provided in a compiled form and is not suitable for modification.