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Help - Home

The home page displays general ipDisplay information and provides a snapshot that represents what is actually on the ipDisplay. The snapshot is refreshed by clicking the small refresh button above the snapshot area. The snapshot date and time is displayed below the snapshot. General ipDisplay information is displayed with information including the ipDisplay name, description, TCP/IP address, current date, and current time. The ipDisplay's maximum capabilities are displayed including the height, width, and colors allowed.

Help - Messages

The messages page provides a list of current messages that exist in the ipDisplay's database. The messages are sorted by the target and the order. Messages can contain text, data field values, and images.

Target

The target is the place that the message is sent to. The ipDisplay has layouts with zones that have a single target id assigned to each zone. This allows a message to be displayed in more than one layout. Often a similar message area is assigned to each layout for an important message, the current date, or the current time. The similar area may have different zones but

those zones can have the same target id. This allows a message to be sent to a target that display in an unlimited number of zones in different layouts.

Order

The order is the sequential display order for messages directed to a target id. When the message duration ends, the next message in ascending order will display.

Priority

Three message priorities exist in the ipDisplay; low, medium, and high. All messages display for a target in a round-robin fashion in ascending order. All messages with high priority will display and not allow low priority messages to display until the high priority messages are removed from the ipDisplay. A medium priority message will display once then be down-graded to a low priority, even if a high priority message is displaying. In other words, a high priority message is only interrupted by a medium priority message that displays once then becomes a low priority message. High priority messages for the same target id but with different orders will display and timeout for the next high priority message.

Time Out

The time out is the complete duration that a message is to be displayed. When the time out occurs, the next sequential message is displayed.

Scroll

The scroll setting specifies that the message will scroll or not scroll for all zones that the message will display in. Scroll is either on or off. Scrolling messages do not implement entry and exit effects.

Note:

Entry and exit effects are not implemented if the message is set to scroll. If the message is too long for the zone and scroll is set to false then the message will display as much as the zone size will allow. When the message times out, it will then display the next length of message until either the entire message has displayed in timeout intervals or the layout has timed out.

Entry Effects

Entry effects are transitions of a new message over a previous message as it arrives on the ipDisplay. The clear effect clears the zone before displaying the new message. The roll effects will display a new message in a rolling movement as it arrives on the screen. The wipe effects will present the new message in a wiping motion as it removes the previous text message and presents the new message.

Exit Effects

Exit effects are transitions of an outgoing message when the message times out. The clear effect clears the old message when the message times out before displaying the new message. The roll effects will display the outgoing message in a rolling movement as it leaves the screen. The wipe effects will remove the timed out messages in a wiping motion as it is removed to present a new message.

Defaults Button

The defaults button will conveniently set the values on the screen to defaults so that a new message can quickly be created without the previous message attributes.

Fonts

Different fonts are available to change message text format. Font sizes range from size 5 to size 32. The font face varies such as bold, proportional, and fixed. The font is limited to what the ipDisplay can present. Manually changing the font to a different size will not display unless it is supported by the ipDisplay. Font changes can be applied to existing text by first selecting the text then selecting the preferred font. Fonts can also be selected before entering text so that text that is typed in will be that font's size and face. Data items will have their font specified exactly like static text by selecting the field, then selecting the font for the data field to display.

Data

The data list will provide all available data items that exist on the ipDisplay. Data fields can be inserted into a message at the current cursor location. The data field has a specific format of `[[F:Field1]]` where the "F:" inside of double brackets is an indicator that the area is to have the known field value replace the placeholder text area in the message. If the field is removed, nothing will display in that area. The field name can be manually changed in the message editor area to avoid the need to remove the existing field and select another field in the list. This format is similar to word processor macro syntax. If the format is not as expected, "F:" inside of double brackets, the field value will not replace the area but instead display whatever text it appears to be.

Images

Images are uploaded to the display using the images page upload feature or the ipDisplays API. The list of images represents all available images that can be inserted into the message text editor. Images are inserted into the message editor by placing the cursor at a preferred location then selecting an image from the list. The image placeholder has a specific format of `[[I:Image1.bmp]]` where "I:" inside of double brackets is an indicator that the area is to have the image displayed at that area. If the image is deleted or is missing, such as a removed USB stick where the image normally resides, the image will not display in the message. The text inside of this "I:" double bracket area can be manually changed to another image name. For example, in the previous example of `[[I:Image1.bmp]]`, the image name can be changed to `[[I:Image2.bmp]]` so that another image can be displayed instead.

Editor Buttons

Red

Changes the selected text, data item value, or typed in text to be displayed in red.

Yellow

Changes the selected text, data item value, or typed in text to be displayed in yellow.

Green

Changes the selected text, data item value, or typed in text to be displayed in green.

Default

Changes the selected text, data item value, or typed in text to be displayed in the zone's default color.

Note:

Data items can be set to a color such as red, yellow, or green but if they have a threshold related to them, the colors will match the threshold color before the message specified color.

Left Justify

The left justify setting will justify the entire message to be left justified in the zone.

Center Justify

The center justify setting will justify the entire message to be center justified in the zone.

Right Justify

The right justify setting will justify the entire message to be right justified in the zone.

Superscript

The superscript setting changes the selected text, data item value, or typed in text to be superscripted so that it is placed vertically higher than the same font sized text. The method of removing the superscript is to press the superscript a second time to toggle the superscript settings. The "^{" and "}" tags can also be found and removed using the manual XHTML editing feature to quickly remove the superscript setting.

Subscript

The subscript setting changes the selected text, data item value, or typed in text to be subscripted so that it is placed vertically lower than the same font sized text. The method of removing the subscript is to press the subscript button a second time to toggle the subscript settings. The "_{" and "}" tags can also be found and removed using the manual XHTML editing feature to quickly remove the subscript setting.

Blink On and Blink Off

Blinking can be applied to a block of text by pressing the Blink On button which is an orange button similar to an asterisk. Blinking can be turned off at a selected point by pressing the Blink Off button which is a red button similar to an asterisk. These two attributes work together to set blink on and off at any point in a message. The blink on attribute has a specific format of [[CMD:BL]] where "CMD:" in double brackets is an indication of a special ipDisplay command. The command for blink on is "BL" and for blink off is "BO". Like any other message text, these command areas can be manually added or removed using the manual XHTML editing feature.

Add / Update Button

The “Add / Update” button will send the message information to the ipDisplay. If the message does not exist with the specified target and order, it will be added to the ipDisplay otherwise it will update the message with the same target and order.

Delete Button

The delete button will remove the selected message from the ipDisplay. If the message was persisted previously with the Advanced page’s persist features, then the message will still exist in the saved configuration. For this reason, if the message is not needed ever again, the messages need to be persisted from the persist features on the Advanced page.

List Target Button

The list target button will retrieve and list only messages on the ipDisplay that have the specified target id.

View Source Checkbox

The view source checkbox will toggle the ability to edit the message using industry standard XHTML syntax. This provides more control for editing message details. The view source checkbox must be unchecked to place the editor in a mode that can be updated to the ipDisplay.

Show Message Button

The show message button provides message debugging information. This information is the message text that is sent to the ipDisplay to add or update the message. This information can help troubleshoot why a specific message area is not exactly as intended.

Page Combo Box

The “Page” combo box list the pages that can be displayed. This provides a convenient paging feature so the list of messages doesn’t have to be too long. The combo box can be selected to show only the specific page of messages. The default number of paged messages is 15 per page. The default page combo box setting is to show all messages.

Editing the Message Text

The message text doesn’t always get configured as expected. On these occasions, it may be necessary to edit the message text manually by editing the XHTML text that is used to represent the HTML editor display. This necessity should rarely occur. This is not always as difficult as it seems but has a few requirements. XHTML is a precise standard format that must have all lower case tag names and must have a matching ending tag. If this is not perfectly adhered to then the message will usually not display correctly. The XHTML is only a method of editing messages in the browser to get the messages in a format that the ipDisplays recognize when using the ipDisplays API. If the message is too complicated and editing the XHTML is also too complicated, it may help just to delete and start over to build the message.

The Message List

Available messages are listed at the bottom of the message page. When a message is to be edited or removed, it needs to be selected by clicking the appropriate message option button. Pressing the option button will place the message in the editor text area. The message can be changed then updated on the display by pressing the Add/Update button. This will send the updated message to the display and update the message list version of the message.

Help - Data

The data page provides configuration of data fields for usage in messages. Data fields have the following settings.

Name

This is a unique name to identify the data field with. This name can be used in programmatic update of the field value using the ipDisplays API.

Type

User defined field value, current date, or current time to display.

Align

Align the field value left, center, or right of the container zone. The field's value may flow to one side or the other depending on the width specified. This needs to be considered if fields are not displaying as expected. For example, if a field's width is 10 and it aligns right, if a message contains only the field, the alignment will reflect the field's width of 10. If the zone width is configured to be too small then the field value may be truncated and not display as expected.

Width

The maximum character count to display.

Category

A field classification to group similar fields together. This provides the ability to programmatically query all fields that match a specific category.

Formatting

Special formatting syntax can be applied to data fields. The syntax must match the standard C "printf" method. The question mark icon next to the formatting label will provide a few examples that can be specified.

Examples (without the quotes):

"%d Items Shipped" – This outputs the entire string with the %d replaced with the data field value's numeric representation.

"Email Server is %s." – This outputs the entire string with the %s replaced with the data field's

string representation such as the word “up” or “down”. In this example, if the data field value is “up” then the final data field output in a message would be “Email Server is up.”

Threshold Name

The threshold name is an existing threshold that is applied to the data field. A single threshold can be applied to any number of fields. The threshold list contains all of the available configured thresholds. When a threshold is specified for a field, the color and blink settings will change for the field display as the threshold directs. For more information, see the Thresholds help.

Current Value

This is the current value of the data field on the ipDisplay.

Initial Value

This is the initial data field value when the ipDisplay starts.

Data Id

This is the identification number of the data field for debugging information. This id value can be used when programmatically updating data items by id with the ipDisplays API.

Help - Thresholds

The threshold page associates data fields with attributes such as color and blink with units called setpoints. While the field value is in that range, each setpoint will change the field value’s display attributes such as blinking or color. When the field value is out of the threshold range, the field value’s display color will be the same as the default zone color.

Add Button

This adds a threshold to the ipDisplay then select it for editing.

Update Button

This updates the currently selected threshold.

Remove Button

This removes the currently selected threshold.

Name

Descriptive name to identify the threshold on the data page when selecting thresholds for a data item to use.

Minimum

Minimum value for the threshold range. When the value is less than the minimum value, the color setting will revert to the zone default value.

Maximum

Maximum value for the threshold range. When the maximum value is exceeded, the color setting will revert to the zone default value.

Color

The default color for the threshold range. Data fields using the threshold will display with the specified color if it has no relative setpoint. The color on a three color ipDisplay will be Green, Yellow, Red, and not visible.

Blink

The default blink attribute for the threshold range. Data fields using the threshold will display with the specified blink attribute if it has no relative setpoint.

Setpoints

Setpoints are ipDisplay attributes for the data values in messages when the data value is in the specified setpoint value range. Two attributes are available for each setpoint; color and blink. The color on a three color ipDisplay will be Green, Yellow, Red, and not visible. The blink value is either on or off.

Setpoint Add Button

Setpoints are added to the setpoint list by pressing the “Add” button located in the “Threshold Setpoints” area. The setpoint is added to the list with a value of 0. After a setpoint is added, the value should be changed to reflect the preferred beginning of the threshold range.

Setpoint Remove Button

The remove button will remove a setpoint from the setpoint list. To remove the setpoint, click a setpoint option button then press the remove button. After all setpoints are configured, the threshold Update button will need to be pressed to save the changes.

Help - Layouts

The layouts page provides ipDisplay layouts with configured zones. Zones are areas that are assigned a target. Since messages are sent to targets, the zones will display one or more messages in the target sorted by message order. When a message time expires, the next message by order will display in the same zone. The lower portion of the zone configuration area has a representation of the currently configured zones. This helps visualize the layout of zones as they will appear on the ipDisplay.

Add Layout Button

Add a new layout using the specified settings.

Update Layout Button

Update the selected ipDisplay layout with the current settings.

Remove Layout Button

Remove the selected layout from the ipDisplay.

Name

Descriptive name for the layout.

Order

Display order of the layout in relation to other layouts. When the layout duration expires, the next sequential layout will display.

Duration

The total time that the layout will remain on the ipDisplay until being replaced by a layout in the next ascending order.

Coordinates

The ipDisplay coordinates is useful information to understand the available coordinates for zone configuration.

TID

The TID is the layout id for debugging information. The layout id can be used to programmatically configure layouts with the ipDisplays API.

Add Zone Button

Add a zone to the layout.

Update Zone Button

Update all of the current zone list for the specified layout.

Remove Zone Button

Remove the selected zone from the layout.

Zone Wizard Button

The Zone Wizard button helps to create a set of properly sized zones. After the button is clicked, the user is prompted to enter the number of rows, columns, and starting target identifier. The new zones will be appended to the current list. The number of zones created will be the number of rows times the number of columns. Messages are assigned to targets and targets are assigned to zones. When the zone wizard creates zones, targets can carefully be planned so that a set of sequential target ids can be created with the new zones.

Help - Images

The images page lists all images that have been uploaded to the ipDisplay. The physical images are located in a directory named images in the root directory of the USB stick or the configured network configuration location. To upload an image, type in the full file path or browse to enter the full file path then press the upload button. Press the applicable delete button to delete an existing image from the list. The image is uploaded to the ipDisplay and will be available if the ipDisplay is restarted. Images are uploaded to an inserted USB stick. If the stick is removed from the ipDisplay, messages will not be able to find the images to display them. Messages that are configured to display an image are not updated if the image is deleted.

Note:

The back button will need to be pressed to return to the images page after an image is uploaded.

Help - Sources

The source page provides an interface for specifying the source for both basic startup configuration and data updates. If a user name and password are required, the page provides user name and password entry. Both configuration and data sources allow transport types of HTTP, Network Share, or an Onboard USB stick.

HTTP

The HTTP source is a valid web URL to a web page or a web service. The web text returned must match a specified interface to update the ipDisplay data properly.

Network Share

The network share setting expects a valid network Universal Naming Convention (UNC) path. An easy way to configure a UNC path is to copy an existing USB stick configuration, share the directory from Windows Explorer, and map a drive to the network shared directory that is publicly available.

Onboard USB

The Onboard USB is the default source for startup configuration so this does not need to be specified.

Extra Parameter

The data sources section provides an area for an extra parameter as defined by the provider of the data. This parameter could be an identifier for this ipDisplay or other identifier for flexible user defined data retrieval.

Frequency

The frequency setting indicates the interval that data is will be retrieved by the ipDisplay from a source. The frequency can be set as second, minutes, and hours.

User

The user name can be specified for the data sources for data services that require an explicit login.

Password

The user password can be specified for the data sources for data services that require an explicit login name and password.

Help - Setup

The setup page provides initial display configuration.

Security

The security page provides user name and password entry to prevent unauthorized ipDisplay usage. This will require users to login to the ipDisplay when opening the administration pages.

Change Password Button

Apply a password change if the correct information was specified with a new password, the old password, and a confirmation of the old password.

SNMP Settings

SNMP settings can be enabled to configure traps for network errors such as link state, initialization packets, and socket errors.

Description

The description is to be a helpful description to easily identify or describe the ipDisplay. This information will display on the Home page of the ipDisplays administration pages.

Location

The location is helpful information to identify the physical ipDisplay location. For example, “North Line”, “Help Desk”, “Conveyor 1”, and “Inside Sales 1” are typical location names to identify where the ipDisplay is located.

Contact

Contact information is descriptive and helpful information to explain who has responsibility over the ipDisplay unit.

SNMP Manager1 and SNMP Manager2

The SNMP Manager TCP/IP address provides configuration to identify the SNMP manager system that will be listening for SNMP traps from the ipDisplay.

Update Settings Button

Update the currently displayed SNMP settings on the ipDisplay.

Reset Settings Button

Reset the SNMP settings on the screen to the defaults so that new settings can be entered, starting with fresh default values. The values are not saved to the ipDisplay until the Update Settings button is pressed.

Network Settings

The network settings page is the most important setup page to get an ipDisplay started properly. This page has the read-only field for the ipDisplay's unique Ethernet MAC address. This address is unique across all ipDisplays that are produced.

DHCP Settings

DHCP is a convenient network name resolution system. The “Enable DHCP” checkbox will provide the mechanism for the ipDisplay to broadcast a request for an IP address to a network located DHCP server. The DHCP server IP address can be explicitly specified to identify a router that will provide a DHCP address to the device.

Static IP Settings

The static IP settings provide the alternate means to network address initialization when not using a DHCP server. If the DHCP checkbox is not checked on the page, then the static IP address fields must be specified with an IP address that doesn't conflict with any other network devices. If the ipDisplay is to use a router on a network with a static IP address, the static IP address is still configured by range on the router to be allowed to connect and communicate with the router.

Update Settings Button

Update the currently displayed network settings on the ipDisplay.

Reset Settings Button

Reset the network settings on the screen to the defaults so that new settings can be entered, starting with fresh default values. The values are not saved to the ipDisplay until the Update Settings button is pressed.

NTP Settings

Enable SNTP

The “Enable SNTP” checkbox provides the ability to configure a time server that supports SNTP such as time.nist.gov.

NTP Server

The NTP server setting must be an existing accessible time server on the local network or internet.

Set Time

The current ipDisplay time can be explicitly specified if the NTP server feature is not being used. The time can easily be configured with the date time picker provided.

Enable Daylight Savings

The “Enable Daylight Savings” checkbox can be selected so that time changes can be automatically applied when a daylight savings time change occurs.

Time Zone

The time zone can be specified for the ipDisplay to use.

Update Settings Button

Update the currently displayed NTP settings on the ipDisplay.

Reset Settings Button

Reset the NTP settings on the screen to the defaults so that new settings can be entered, starting with fresh default values. The values are not saved to the ipDisplay until the Update Settings button is pressed.

DNS Settings

DNS1 and DNS2

Domain name server settings are provided to configure the ipDisplay in an enterprise network containing domain name servers.

WINS Settings

WINS settings provides configuration to WINS servers to provide a unique name for the ipDisplay.

Update Settings Button

Update the currently displayed NTP settings on the ipDisplay.

Reset Settings Button

Reset the NTP settings on the screen to the defaults so that new settings can be entered, starting with fresh default values. The values are not saved to the ipDisplay until the Update Settings button is pressed.

Help - Advanced

The advanced page provides seldom used functionality.

Remove From Target

This functionality allows all messages to be removed from a specific target and order without knowing the exact message id. If the specified order is 0, then it will remove all messages from the target, even if messages were queued in the target with different display order.

Commands

Timeout Current Layout

The “Timeout Current Layout” command provides a way to timeout a current layout to display the next layout in the layout order.

Reload Commands

“Reload commands” provides a method to reload specific configuration without resetting the ipDisplay that would have been loaded at startup. These commands include layouts, messages, data items, and all configuration with the “Reload All” command.

Persist Commands

The persist commands save configuration to an inserted USB stick. All configuration can be persisted with the “Persist All”. Individual configuration settings can be saved. For example,

messages can be saved with the “Persist Messages” command. It may not always be preferred to persist all of the current messages such as when temporary information messages are sent such as “Email server is down!!!”. If the ipDisplay is restarted a month later, it will use the persisted messages as the initial messages. It will be unlikely that the “Email server is down.!!!” message is still needed. It is a good practice to persist any configuration changes that are permanently needed in the event of a power outage.

Reset Sign

The “Reset Sign” message performs a complete power reset of the ipDisplay.