The CumulusMX Alternative Interface (AI)

Version 2 (November 2021)

The focus for this version of the AI has been to use Flex containers wherever possible and appropriate throughout the site. The benefit of using flex containers is that any content within a flex container not only makes better use of the available screen space on all size screens but also allows the content to be re-ordered to suite the needs of the viewer.

For example if you want to have your gauges displayed in a different order you can change the order property of a gauge panel rather than cut and pasting whole blocks of HTML code.

All pages make some use of flex containers but the the greatest use is within the "Weather Data" pages. Please see below for a complete list of items affected.

Pages affected

The Dashboard: The alarms panel contained two flex containers - weather alarms & system alarms. This version also allows the alarm panel to be turned off while the Sun & Moon times together with the forecast are in a popup.
All the weather data containers are held in a single flex container to allow them to be re-ordered to suite.

Current Readings: The six panels are in a single flex container set to allow variable heights. They can be re-ordered and can also be made to be a constant height within each row.

The Gauges: All gauge panels are in a single flex container and can be displayed in any order you require.

All Charts: Only the chart selection buttons at the bottom of the page are in a flex container. The 'Select-a-Chart' buttons are arranged as two blocks that remain left & right justified.

Today V Yesterday: This page has a complex layout all built using flex containers. The three panels, Pressure, Humidity & Solar are in their own flex container which in its self is one of four panels also in a flex

container. All panels are set to have equal height which can be changed if preferred.

Weather Records: This page uses a vertically aligned flex container so you can reorder the panels vertically. The month selection buttons are also in a flex container so always occupy complete row(s).

NOAA pages: Neither page use flex containers for the main content.

Extra Sensors: All main panels are within a single flex container so can be re-arranged to suite you collection of extra sensors.

AirLink Sensors: As for the Extra Sensors page.

Configuration/Setup Pages

Most of these pages only make minimal use of flex containers except in the page titles and any rows of buttons that are used.

Any page that contains a traditional html table has not been modified even though in many cases they could be made fully responsive. I have chosen to leave then as tables as I feel editing on a small screen would be very difficult and prone to errors. However, they do all scroll sideways when required. All tables are 'hover-able' making the current row stand out when hovering over it.

Reorganising Flex Panels

Order

Every immediate child of a flex container can be given an 'order' property. If omitted their value is assumed to be zero. Some have been allocated but are still zero while others have been given an ascending order number. These numbers dictate the order to display the child container in its parent. Order numbers can be negative. If several children have the same order number, they are displayed in the order they are coded on the page.

Just change the order number to suite your needs - no need to copy and paste.

Panel Gaps

This is controlled by the style option: gap which is applied to the main flex container. At present it is only used in the style 'ai-flex-between' and 'ai-flex-justify' where the child is a <div> element. It has two numbers 16px & 8px which represent the vertical and

horizontal spacing respectively. If you change it you may have to adjust the widths of the 'ai-quarter', 'ai-third' and 'ai-half' styles as these set the minimum width for their respective large screen panels.

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Panel Heights

For any flex container that you want panels to be their natural height rather than equal height within the same row you need to add the style 'flex-start' to the flex container. Other options include: 'flex-end', 'center' and 'baseline'.

Other changes

Theme selector: Only small cosmetic changes have been made. All other aspects remain the same.

Weather Diary: Combined with the Current Conditions page into one page - 'Weather Conditions Editor'. (The original pages still exist as do their entries in the menu but you will need to edit the main and mobile menus to make these pages accessible).

Todays Rain: The read-only input boxes have been coloured to show they cannot be edited.

FTP Now: Cosmetic changes only

Alarm Settings: Cosmetic changes only

Gauges: In this version of the AI, I have included an amended version of the gauges.js file held in **lib/steelseries/scripts/**. The modifications made are to the tooltips to provide tooltip titles on their own line and break individual readings onto new lines rather than use the '|' character. If this is not required then simply add a leading '/' to the script elements in the index.html and gauges.html pages for the gauges.js src.

Style sheets: Two new stylesheets have been added for specific groups of pages: alpaca-forms.css & X-editable.css. These provide common styles used on pages that use these library items.
I have also added a number of additional theme styles - mainly in the grey spectrum and removed one that I didn't like.

The folder structure is:

ai.cmx   - (all html files needed)

       - /css   (all css files and colour schemes)

       - /js   (all modified javascript files)

       - /images   (all **additional** images used by the AI).

       - /lib/steelseries/scripts/   The gauges.js file

Installing the AI

i. Download and extract the 'Alternative Interface for CumulusMX file to a **new** area on your system. **Do NOT extract directly the the CumulusMX/Interface folder**.

ii. Verify that the folder structure is as shown above.

iii. If you have downloaded the first AI and want to keep it, then rename its root folder (ai.cmx) and change any bookmarks to match. Each upgrade will always be a complete packages and does not rely on previous versions only the main interface.

iv. Copy the ai.cmx folder and its contents to the **/interface** folder so that ai.cmx exists as a **sub-folder** of the existing interface folder. **This is very important.**

You should now be able to access the AI using your default URL plus '/ai.cmx/'. I.e.,
http://localhost:8998/ai.cmx/
http://<ip address>:8998/ai.cmx/

CumulusMX Upgrades

When CumulusMX is upgraded all you have to do is remember to copy the ai.cmx folder to the new Interface folder.

General Changes

The Menu(s)

The menu(s) are loaded from two external html files - MainMenu.html & MobileMenu.html. This is handled by the Page-Manager.js file. As html files it should be relatively easy to amend these if required.

The menu options have also been re-arranged to accommodate varying screen widths. The menus are as shown below:

Dashboard
Pages   -   Current Readings
              -         Gauges
              -         Recent Charts
              -         Select-a-Chart
              -         Historic Charts
Extra sensors -   Additional sensors
              -         AirLink Sensors

Data Logs   -   Data logs
              -         Extra data logs
              -         The dayfile
Settings   -   Config Wizard
              -         Program settings
              -         Station settings
              -         Internet settings
              -         Third party uploads
              -         Extra sensor settings
              -         Extra web files
              -         Calibration settings
              -         NOAA settings
              -         MySQL settings
              -         Alarm settings
              -         FTP Now
Edit   -   Today's rain
              -         Weather Conditions Editor
              -         The weather diary
              -         Current conditions
              -         All-time records
              -         Monthly records
              -         This months records
              -         This years records

The underline indicates a separate bar in the menu. This is used to aid navigation.

The entries for 'The weather diary' & 'Current Conditions are hidden but can be re-enabled if preferred.

At the end of the menu is a link to return to the default Interface dashboard page

Behind the Scenes

Javascript files

To avoid conflict with the existing CumulusMX Interface, all javascript files have been copied to their own folder within the AI. Most have had some modifications to work with the new elements on various pages and to force API calls to use the correct URL. However, I have made no changes to the calls they make or how often.

Page-Manager.js

This is a new script to manage the header, footer and margins of all pages. It also makes an API call to obtain CumulusMX version information removing the need to call this in individual page scripts. It also manages theme selection on site pages.

API Calls

All API calls have been modified to ensure that the correct URL is used; which is (on the default CumulusMX installation), http://<domain:8998>/api/... In most cases this simply required a leading '/' to be added to the URL for the Ajax call.

Pages using the alpaca libraries

Apart from the API calls, a function 'getCSSRule()' has been modified to ignore the first stylesheet used in the head section. This is because this stylesheet is external and used to enable google fonts; that cannot be interrogated.

Libraries

The only library file that has been modified is the gauges.js file in **lib/steelseries/scripts/** This has had the tooltips modified to use line breaks rather than the pipe character - '|' . I have also made the titles use the <h5> html tag rather than <p>.

Styles

A new css folder is used and only those required by the AI have been created. This includes a range of theme style sheets for those that want to change from the default colours.