enGage™ VII definition worksheet

This questionnaire is to be used for enGage™ VII applications.

==========

Type of enGage™ VII unit: Enclosed (cased): _____ Module (uncased): _____
System voltage: _____
Isolated CAN: yes___or no__
CAN baud rate: _____
CAN Node ID: _____
CAN only or Full I/O: _____
Video Input: yes_____or no_____
Number of Video Input Channels: _____ (2 max; video 1 has priority)
Video 1 input switch source: CAN: _____, Switch Input: _____, Mirrored or normal: _____
Video 2 input switch source: CAN: _____, Switch Input: _____, Mirrored or normal: _____
Analog Inputs - 5 max. (0 – 10k ; 0 – 10V)

- Analog input 1: resistive: _____ or voltage: _____
- Analog input 2: resistive: _____ or voltage: _____
- Analog input 3: resistive: _____ or voltage: _____
- Analog input 4: resistive: _____ or voltage: _____
- Analog input 5: resistive: _____ or voltage: _____

Number of frequency Inputs: _____ (3 max; 10kHz max)
Number of switched inputs: _____ (16 max.)

Type of application: _____ Brief Description: _____

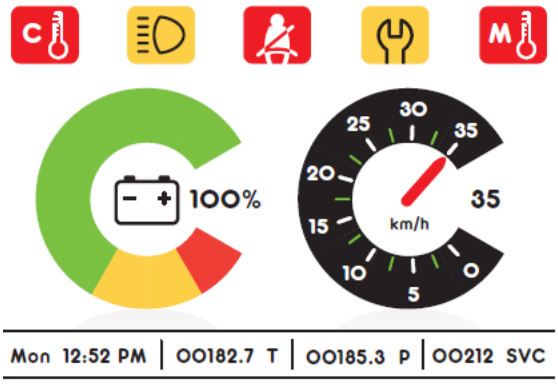
Yearly quantities: 1st year: _____ 2nd year: _____ 3rd year: _____ 4th year: _____

==========

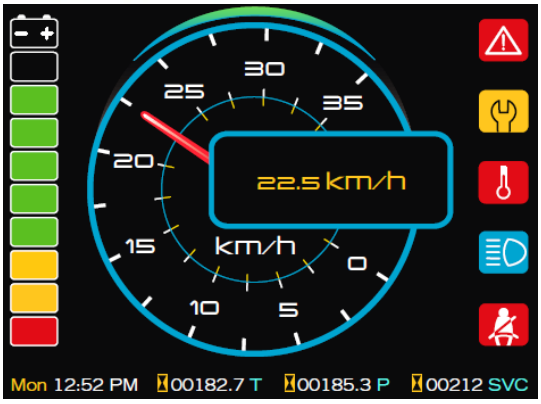
Define the types of Instruments, Icons, Message Center and Advisories desired.

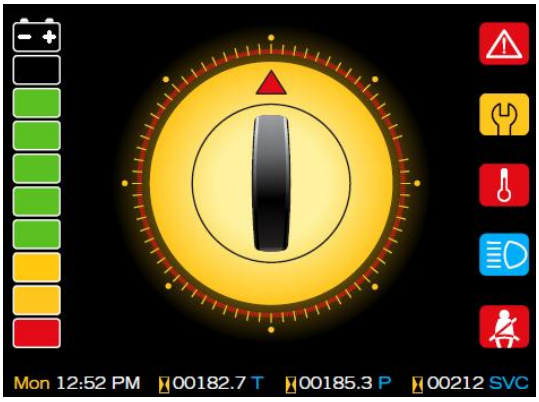
==========

INSTRUMENTS:



4549 Silver Springs Blvd SW, Suite 100 Powder Springs, GA 30127
Phone: 678-567-9563 Fax: 678-567-9564





Select the number, size, color and types of instruments. The screen layout and number of instruments will dictate the number and location of warning icons.

1st Instrument: _____ (BDI, fuel, pressure, tachometer, speedometer, Volts, Amperes, etc.)
Display type: _____ (bargraph (vertical/horizontal), needle small (quarter/half circle) / large horizontal)
Display Scale Minimum / Maximum Values: _____/_____
Display Units: MPH, KPH (km/h), RPM, °C, °F, kPa, etc. _____
Input Source: _____ (Analog Sender # (1 – 5), CPU internal calculation, CAN)
Sender Type: _____ (Resistance, Voltage, Frequency, CAN)
Sender make & p/n: _____
If Speedometer/Tachometer (pulses mile/kilometer or pulses per engine revolution): _____
Sender Minimum / Maximum Values: _____/_____
Sender Threshold Transition Values: _____, _____, _____, _____, _____, _____, _____, _____, _____
Instrument Icon: _____
Instrument alarms (%) of scale: High: _____, Low: _____

2nd Instrument: _____ (BDI, fuel, pressure, tachometer, speedometer, Volts, Amperes, etc.)
Display type: _____ (bargraph (vertical/horizontal), needle small (quarter/half circle) / large horizontal)
Display Scale Minimum / Maximum Values: _____/_____
Display Units: MPH, KPH (km/h), RPM, °C, °F, kPa, etc. _____
Input Source: _____ (Analog Sender # (1 – 5), CPU internal calculation, CAN)
Sender Type: _____ (Resistance, Voltage, Frequency, CAN)
Sender make & p/n: _____
If Speedometer/Tachometer (pulses mile/kilometer or pulses per engine revolution): _____
Sender Minimum / Maximum Values: _____/_____
Sender Threshold Transition Values: _____, _____, _____, _____, _____, _____, _____, _____, _____
Instrument Icon: _____
Instrument alarms (%) of scale: High: _____, Low: _____

3rd Instrument: _____ (BDI, fuel, pressure, tachometer, speedometer, Volts, Amperes, etc.)
Display type: _____ (bargraph (vertical/horizontal), needle small (quarter/half circle) / large horizontal)

4549 Silver Springs Blvd SW, Suite 100 Powder Springs, GA 30127
Phone: 678-567-9563 Fax: 678-567-9564

Display Scale Minimum / Maximum Values: _____/_____
Display Units: MPH, KPH (km/h), RPM, °C, °F, kPa, etc. _____
Input Source: _____ (Analog Sender # (1 – 5), CPU internal calculation, CAN)
Sender Type: _____ (Resistance, Voltage, Frequency, CAN)
Sender make & p/n: _____
If Speedometer/Tachometer (pulses mile/kilometer or pulses per engine revolution): _____
Sender Minimum / Maximum Values: _____/_____
Sender Threshold Transition Values: _____, _____, _____, _____, _____, _____, _____, _____, _____
Instrument Icon: _____
Instrument alarms (%) of scale: High: _____, Low: _____

4th Instrument: _____ (BDI, fuel, pressure, tachometer, speedometer, Volts, Amperes, etc.)
Display type: _____ (bargraph (vertical/horizontal), needle small (quarter/half circle) / large horizontal)
Display Scale Minimum / Maximum Values: _____/_____
Display Units: MPH, KPH (km/h), RPM, °C, °F, kPa, etc. _____
Input Source: _____ (Analog Sender # (1 – 5), CPU internal calculation, CAN)
Sender Type: _____ (Resistance, Voltage, Frequency, CAN)
Sender make & p/n: _____
If Speedometer/Tachometer (pulses mile/kilometer or pulses per engine revolution): _____
Sender Minimum / Maximum Values: _____/_____
Sender Threshold Transition Values: _____, _____, _____, _____, _____, _____, _____, _____, _____
Instrument Icon: _____
Instrument alarms (%) of scale: High: _____, Low: _____

5th Instrument: _____ (BDI, fuel, pressure, tachometer, speedometer, Volts, Amperes, etc.)
Display type: _____ (bargraph (vertical/horizontal), needle small (quarter/half circle) / large horizontal)
Display Scale Minimum / Maximum Values: _____/_____
Display Units: MPH, KPH (km/h), RPM, °C, °F, kPa, etc. _____
Input Source: _____ (Analog Sender # (1 – 5), CPU internal calculation, CAN)
Sender Type: _____ (Resistance, Voltage, Frequency, CAN)
Sender make & p/n: _____
If Speedometer/Tachometer (pulses mile/kilometer or pulses per engine revolution): _____
Sender Minimum / Maximum Values: _____/_____
Sender Threshold Transition Values: _____, _____, _____, _____, _____, _____, _____, _____, _____
Instrument Icon: _____
Instrument alarms (%) of scale: High: _____, Low: _____

MOSFET and Audible Alarms:
The four MOSFET outputs and audible alarm can be used as instrument alarms (see instrument definitions above).

==========

MESSAGE CENTER: _____ (Y/N)

Messages are predefined lines of text stored in the e7 and selected over the CAN bus.

4549 Silver Springs Blvd SW, Suite 100 Powder Springs, GA 30127
Phone: 678-567-9563 Fax: 678-567-9564

Text color and blinkification can be selected.

See appendix A for message definitions and blinkification.

==========

ICONS: The number of displayable indicator/warning icons is affected by the number and types of instruments selected. Locations of the icons may vary depending on the instruments selected. Additional instrument/icon combinations are possible based on the number and type of instruments selected. Contact Curtis for assistance. SAE J1362 icons are considered standard. Other, custom icons are possible. Supply 32x32 pixel monochrome bitmap. Contact Curtis for assistance. Input type "active high" means that the icon appears when the input to enGage IV sees a positive voltage greater than 4V, "active low" means that the icon appears when the enGage IV input sees B- or a voltage less than 1 V (referenced to B-).

Icon 1 description: _____ (SAE _____, or Custom), Location: _____
Input source (CAN, switched): _____ Input type (active high/low) _____ Blink (Y/N): ___

Icon 2 description: _____ (SAE _____, or Custom), Location: _____
Input source (CAN, switched): _____ Input type (active high/low) _____ Blink (Y/N): ___

Icon 3 description: _____ (SAE _____, or Custom), Location: _____
Input source (CAN, switched): _____ Input type (active high/low) _____ Blink (Y/N): ___

Icon 4 description: _____ (SAE _____, or Custom), Location: _____
Input source (CAN, switched): _____ Input type (active high/low) _____ Blink (Y/N): ___

Icon 5 description: _____ (SAE _____, or Custom), Location: _____
Input source (CAN, switched): _____ Input type (active high/low) _____ Blink (Y/N): ___

Icon 6 description: _____ (SAE _____, or Custom), Location: _____
Input source (CAN, switched): _____ Input type (active high/low) _____ Blink (Y/N): ___

Icon 7 description: _____ (SAE _____, or Custom), Location: _____
Input source (CAN, switched): _____ Input type (active high/low) _____ Blink (Y/N): ___

Icon 8 description: _____ (SAE _____, or Custom), Location: _____
Input source (CAN, switched): _____ Input type (active high/low) _____ Blink (Y/N): ___

Icon 9 description: _____ (SAE _____, or Custom), Location: _____
Input source (CAN, switched): _____ Input type (active high/low) _____ Blink (Y/N): ___

Icon 10 description: _____ (SAE _____, or Custom), Location: _____
Input source (CAN, switched): _____ Input type (active high/low) _____ Blink (Y/N): ___

Icon 11 description: _____ (SAE _____, or Custom), Location: _____
Input source (CAN, switched): _____ Input type (active high/low) _____ Blink (Y/N): ___

Icon 12 description: _____ (SAE _____, or Custom), Location: _____

Input source (CAN, switched): _____ Input type (active high/low) _____ Blink (Y/N): ___

Icon 13 description: _____ (SAE _____, or Custom), Location: _____
Input source (CAN, switched): _____ Input type (active high/low) _____ Blink (Y/N): ___

Icon 14 description: _____ (SAE _____, or Custom), Location: _____
Input source (CAN, switched): _____ Input type (active high/low) _____ Blink (Y/N): ___

Icon 15 description: _____ (SAE _____, or Custom), Location: _____
Input source (CAN, switched): _____ Input type (active high/low) _____ Blink (Y/N): ___

Icon 16 description: _____ (SAE _____, or Custom), Location: _____
Input source (CAN, switched): _____ Input type (active high/low) _____ Blink (Y/N): ___

More if needed

==========

MOSFETs:
If a MOSFET is to be activated as an instrument alarm, then the instrument information (above) must be completed.

MOSFET outputs can also be used as followers of digital (switched) inputs. This section applies to MOSFET usage as followers of digital inputs while not controlled by instrument alarms. MOSFET usage is also limited by the availability of digital inputs. A digital input can be used to turn on an icon and/or a MOSFET at the same time. **Caution:** For non-custom applications a MOSFET can only be controlled by a single source.

Select the active high/low below only if the MOSFET has a dedicated digital input source.

MOSFET 1: Source: _____ (Digital input or icon # (1-6), Input active high/low _____
MOSFET 2: Source: _____ (Digital input or icon # (1-6), Input active high/low _____
MOSFET 3: Source: _____ (Digital input or icon # (1-6), Input active high/low _____

==========

ADVISORIES (Hour Meter, Maintenance, Clock, Odometer, Trip Odometer, Message Center*). Select up to three advisories from three hourmeters, three maintenance monitors, clock.

Advisory 1 (bottom left) type: _____ Source _____, Active high/low _____

Advisory 2 (bottom center) type: _____ Source _____, Active high/low _____

Advisory 3 (bottom right) type: _____ Source _____, Active high/low _____

Advisories options:
If hourmeters are selected select if they should be: Resettable: _____ Non-resettable: _____

If a time-of-day clock is selected select format: 12hr: _____ 24 hr: _____

If a maintenance monitor is selected:

Initial maintenance interval (hours): _____
Subsequent maintenance intervals (hours): _____

* For non-custom applications an Advisory Message Center (11 characters) requires CANOpen or Serial (SCI) communications.

==========

SPLASH SCREEN:
Curtis Logo splash screen (Y/N): _____

==========

CUSTOM REQUIREMENTS:
The following custom features are available only through Curtis Sales and may require a specification document in addition to this definition document. Custom features are subject to additional NRE costs.

Non-standard Icon(s) (Y/N): _____ (Provide 32x32, or 24x24 pixels (instrument) icons in Black & White MS Paint (.bmp) image).

==========

OEM Logo Splash Screen (Y/N): _____ (Provide 192x80 pixels Black & White MS Paint (.bmp) image).

==========

CAN (Y/N): _____(11-bit protocol).
CAN Command Protocol: Nodes 2.0 ____, CANopen: ____, J1939: ____, Other: _____

Note: CAN implementation requires the specification of the applicable CAN commands and timing.

==========

PASSWORD:
A four-digit password can be used to restrict access to the Advanced Settings menu accessible features.

OEM Password (Y/N): _____ Password Definition (numeric): ____, ____, ____, ____,

==========

ADDITIONAL CUSTOM REQUIREMENTS (please describe):

==========

ADDITIONAL COMMENTS:

4549 Silver Springs Blvd SW, Suite 100 Powder Springs, GA 30127
Phone: 678-567-9563 Fax: 678-567-9564