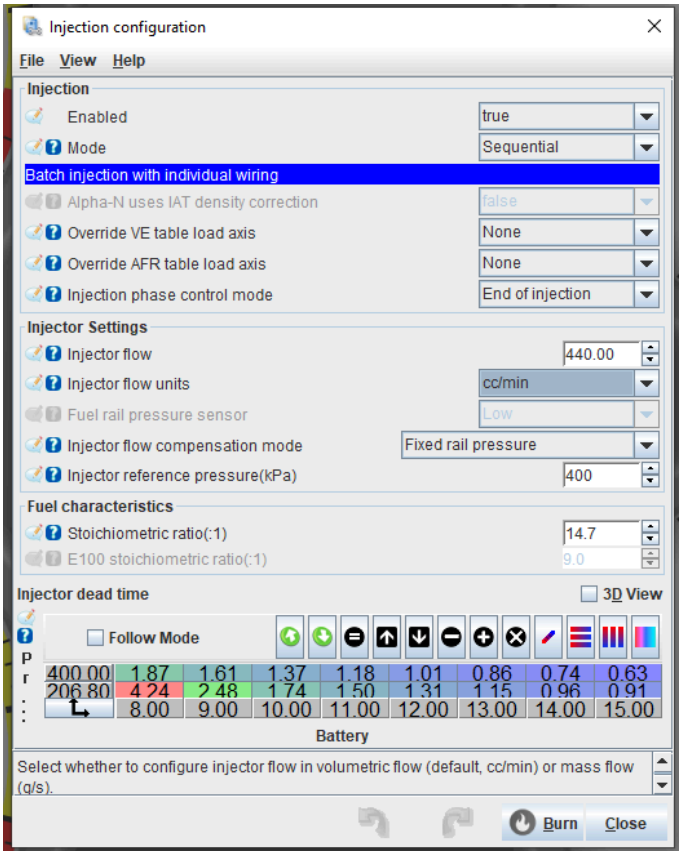
Injection Configuration



In the ***Injector Configuration*** dialog box, you can configure the settings that control fuel injector behavior and fuel delivery.

By default Impact ECU is set to use a true speed density fueling model, here you will also have the ability to swap to Alpha-N if that is your preference.

Here are the key components:

Injection

- **Enabled:** Set to true to enable fuel injection.
- **Mode:** Options include Sequential (individual injector timing) or Batch (all injectors fire simultaneously).
- **Alpha-N Uses IAT Density Correction:** When set to true, it enables intake air temperature-based corrections for Alpha-N tuning strategies.
- **Override VE Table Load Axis:** Allows you to change the default load axis used for the VE table, which is typically MAP (manifold absolute pressure).
- **Override AFR Table Load Axis**: Allows you to override the default load axis for the target AFR table.
- **Injection Phase Control Mode:** Defines when fuel is injected relative to the intake valve opening. Options include End of Injection or other timing references.

Injector Settings

- **Injector Flow:** Specifies the flow rate of the injector, typically in cc/min or g/s.
- **Injector Flow Units:** Choose between Volumetric Flow (e.g., cc/min) or other units.

Injector Flow Compensation Mode:

- **None:** For setups with a MAP-referenced fuel pressure regulator.
- **Fixed Rail Pressure:** For systems with an atmosphere-referenced fuel pressure regulator, typically in returnless systems. **(Typical Setting For HD Touring Models)**
- **Sensed Rail Pressure**: For systems equipped with a fuel pressure sensor, which dynamically adjusts for pressure variations.

- Fuel Rail Pressure Sensor: Only used when "Sensed Rail Pressure" is selected.

Fuel Characteristics

- **Stoichiometric Ratio**: Defines the stoichiometric air-fuel ratio (AFR) for the fuel type in use.
- **E100 Stoichiometric Ratio:** Defines the stoichiometric AFR for E100 (pure ethanol), useful for ethanol blends.

Injector Dead Time

Displays a graph showing injector dead time (in milliseconds) as a function of battery voltage. Dead time decreases as voltage increases, ensuring precise injector control under varying electrical conditions.