HMI DUT pattern

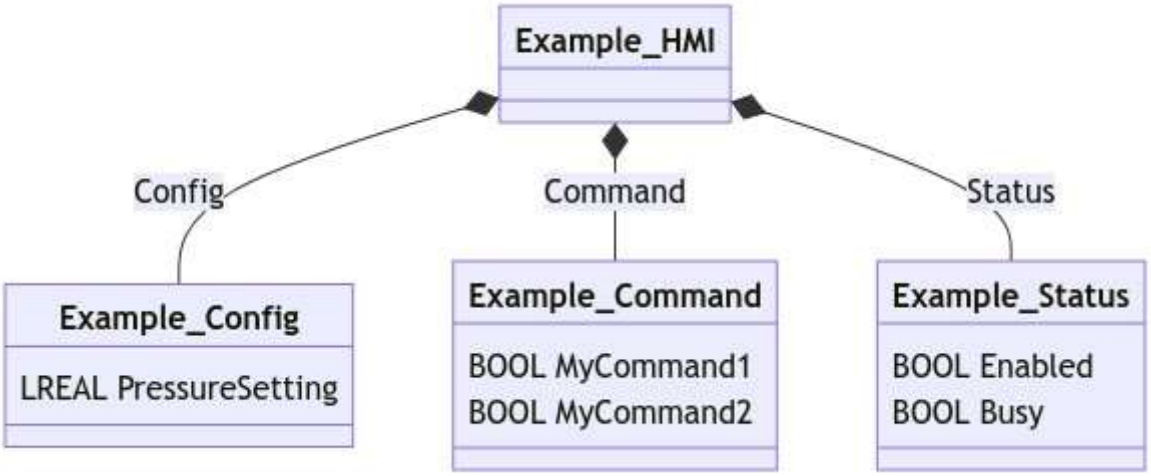
Last updated by | Nick Higgins | Sep 22, 2022 at 2:31 PM EDT

Design Notes

If a function block is intended to be controlled via HMI, a DUT should be created to contain:

- Configuration Variables
- Commands
- Status Information

A wrapper DUT should also be created to aggregate these data (see class diagram).



Function blocks inheriting `FB_ComponentBase` will automatically include basic functions (including a `Reset` command)--see `ComponentBaseHMI` in `FB_ComponentBase`. Similarly, inheriting `FB_PackML_BaseModule` will give you basic mode/state commands, etc. in `PackMLModuleBaseHMI`.

The idea is to give all components/PackML modules the same basic capabilities. Component or Equipment Module-specific functions should be exposed through their own group of DUTs. This pattern makes the development of User Controls on the HMI side much smoother.