

TI C2000 Toolbox GPIO DI (Generic)

This document describes Generic *GPIO DI (Generic)* component, from TI C2000 Toolbox library.

Short description

GPIO DI (Generic) component allows the user to read the state of the digital input of MCU, by referring directly to the HIL device. It is designed to simplify utilization of the MCU GPIO peripheral with the HIL device and [interface board](#).

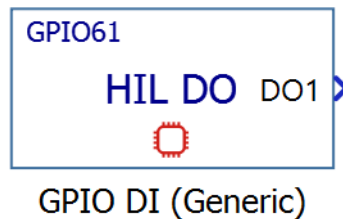


Figure 1. GPIO DI (Generic) component icon.

Detailed overview

Component properties:

- Tab **General**:
 - HIL DO number - specify number of HIL device digital output,
 - Interface type - select interface board that is used, currently supported boards are '*HIL TI Launchpad Interface*' and '*HIL TI uGrid Launchpad Interface*', '*HIL DSP 180 Interface*' and '*HIL DSP Interface*',
 - Controller index - visible only when '*HIL TI uGrid Launchpad Interface*' is selected, specifies MCU slot on the interface board that is used.
 - Logic – logic that will be applied to MCU digital input (*active low* or *active high*),
 - Execution rate - sampling rate of the selected HIL digital output pin. This value must be compatible with other components of the same subsystem: the value must be a multiple of the fastest execution rate in the circuit. To specify the execution rate, you can use either decimal (e.g. 0.001) or exponential values (e.g. 1e-3) in seconds.

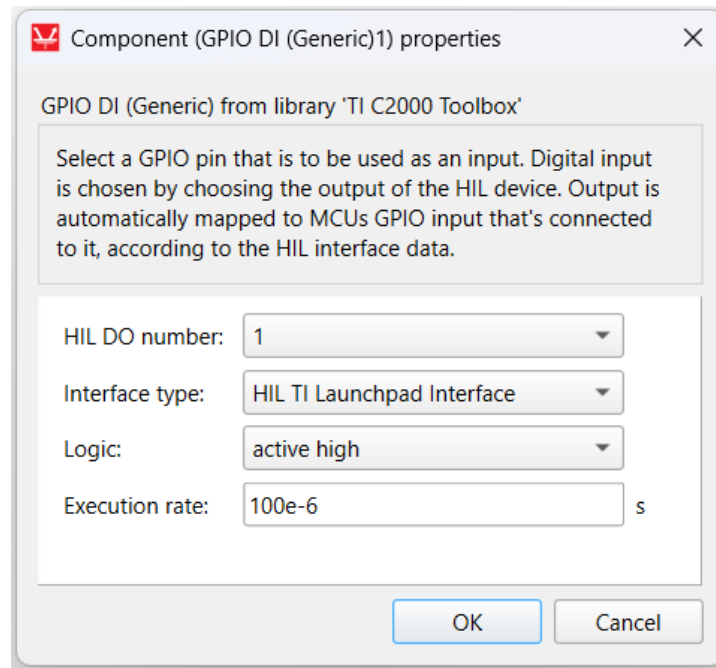


Figure 2. GPIO DI (Generic) component dialog.

NOTE: It is recommended to select *target platform* on [TI C2000 Setup](#) component, *interface type* and *controller index* before configuring the component.

Selected HIL DO number is mapped to corresponding GPIO pin according to the selected [interface board](#). Currently supported interface boards are [HIL TI Launchpad Interface](#) and [HIL TI uGrid Launchpad Interface](#), [HIL DSP 180 Interface](#) and [HIL DSP Interface](#).

Component outputs:

- DOx – state of the selected HIL digital output pin.
 - Supported types: uint
 - Vector support: no