

# TI C2000 Toolbox SCI Read SCADA Widget

This document describes *SCI Read* SCADA widget from TI C2000 Toolbox widget library.

## Short description

*SCI Read* widget is used to read messages from the COM port that is connected to the MCU. In order to successfully read (receive) data from the MCU, generated code must include [SCI Send Schematic Editor component](#) (and vice versa, *SCI Read* widget should not be present on SCADA panel if [SCI Send](#) is not included in generated code).

One instance of *SCI Read* widget should be used for each message defined in *Message configuration* property of [SCI Send](#) component. This widget should be used if *Access port* property of [SCI Send](#) component is set to *USB*.

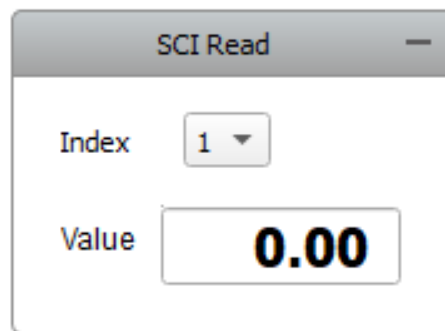


Figure 1. SCI Read – Digital Display widget.

**IMPORTANT NOTE:** [SCI Setup Schematic Editor component](#), [SCI Send Schematic Editor component](#) and [SCI Setup SCADA widget](#) must be configured before attempting to read any message.

SCI Read widget is available in form of a Digital Display, LED, Gauge, Bar Graph and Trace Graph.

## Properties

- **Index** - message identification. If [SCI Setup widget](#) is properly configured, messages are organized in the same way as they are in *Message configuration* property of [SCI Send Schematic Editor component](#). For example, by selecting an *Index* value to be 1, it will read the value of the first message in the defined payload that controller is sending.
- **Value** - message content (number) received from the MCU.

- **[min, max]** – available on SCI Read – Gauge and SCI Read – Bar Graph widgets. Defines minimum and maximum values of the range that widget displays. It should be defined as a list of two elements in ascending order.

## Backward incompatibility

In *TI C2000 Toolbox* version 1.0.0 widget library suffered major changes. When it comes to *SCI Read* widget, previously there was just one type of *SCI Read* widget (with the digital display), but with the new version, four more types are introduced. Now, the widget library contains five types of *SCI Read* widgets:

- SCI Read – Bar Graph,
- SCI Read – Digital Display,
- SCI Read – Gauge,
- SCI Read – LED,
- SCI Read – Trace Graph.

Since every widget in the library must have the unique name, previous name *SCI Read* does not unambiguously represent any of the five widgets anymore. For this reason, SCADA panels with old *SCI Read* widgets will not recognize them anymore when loaded and a widget error flag will be raised (Fig. 2) and they will appear like they are “unresolved” (Fig. 3). This is solved just by replacing them with the new *SCI Read* widgets.

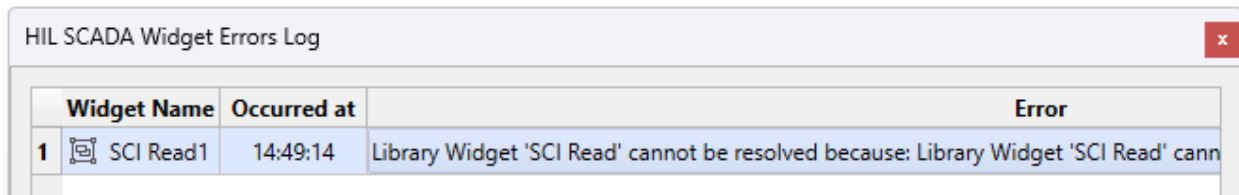
HIL SCADA Widget Errors Log		
Widget Name	Occurred at	Error
1  SCI Read1	14:49:14	Library Widget 'SCI Read' cannot be resolved because: Library Widget 'SCI Read' cann

Figure 2. Widget error: SCI Read cannot be resolved.

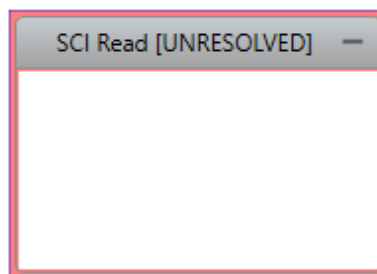


Figure 3. SCI Read unresolved widget.