



SLICEWare

Operator Manual for software.
Notes and comments

Startup Screen Area

DTS SLICEWare Version 1.2.113.0 **RIBBON CONTROL**

Prepare Diagnostics Real-time Acquire Review Data

Current sensor Manual Sensor Assignment Sensor ID

Serial number	Comment	Full scale	Units	SW Filter	Calibration due
ARS 8000	This is a default AR...	8000	deg/s	1650	4/20/2011
Endevco 7264C-2000	This is a default End...	2000	g	1650	4/20/2011
Upper neck load cell	This is a default upp...	6000	N	1650	4/20/2011
Voltage input	This is a default volt...	2000	mV	1650	4/20/2011

SENSOR LIST

Selected sensor:

General

Serial Number: ARS 8000
 Comment: This is a default ARS entry
 Manufacturer: Endevco Model:
 Sensor ID: ISO:

Calibration History

Date	Sensitivity	ZMD
4/20/2009	0.25	0

Sensor Attributes

Full scale (EU): 8000.00 Units: deg/s
 Sensitivity (mv/EU): 0.250000 Bridge type: Full
 Initial EU: 0.0000
 Proportional to Exc: Excitation: 5.0

Options

Invert Shunt check Bridge resistance (ohms): 100.0
 SW filter(Hz): 1650 Zero method: Use Pre-Cal Zero
 Remove offset ZeroStart(ms): 50.0 ZeroEnd(ms): 20.0
 Offset check Limit low(mV): -200.00 High(mV): 200.00

SENSOR DETAIL

Connected sensors:

DAS	Description
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CONNECTED SENSORS

STATUS BAR

- Click anywhere on a line in the Sensor List to show the Sensor Details

	Serial number	Comment	Full scale	Units	SW Filter	Calibration due
	ARS 8000	This is a default AR...	8000	deg/s	1650	4/20/2010
▶	Bridge Simulator 01	350 Ohm Bridge Plug	500	g	1650	10/7/2010
	Endevco 7264C-2000	This is a default End...	2000	g	1650	4/20/2010
	Upper neck load cell	This is a default upp...	6000	N	1650	4/20/2010
	Voltage input	This is a default volt...	2000	mV	1650	4/20/2010

SENSOR LIST

Selected sensor:

General

Serial Number:

Comment:

Manufacturer: Model:

Sensor ID: ISO:

Calibration History

	Date	Sensitivity	ZMO
▶	10/7/2009	0.25	0
	10/7/2009	0.02	0

Sensor Attributes

Full scale (EU): Units:

Sensitivity (mvV/EU): Bridge type:

Initial EU:

Proportional to Exc Excitation (V):

Options

Invert Shunt check Bridge resistance (ohms):

SW filter(Hz): Zero method:

Remove offset ZeroStart(ms): ZeroEnd(ms):

Offset check Limit low(mV): High(mV):

SENSOR DETAIL

Prepare Tab Groupings

Current Sensor

- Add: Will add a blank field Sensor Details field to all for creating a new sensor entry
- Delete: Deletes the sensor that is highlighted in the sensor list
- Undo Edit: Reverts all edits made in the sensor details fields
- Read ID: Reads the EID from the channel selected in the Connected Sensor list. The returned ID value will be populated in the Sensor ID field for the sensor that is highlighted in the sensor list
- Measure Bridge: Measures a sensors bridge resistance from the channel selected in the Connected Sensor list. The returned bridge resistance will be populated in the Bridge resistance (ohms) field for the sensor that is highlighted in the sensor list
- Save: Saves edits made in the Sensor Detail area

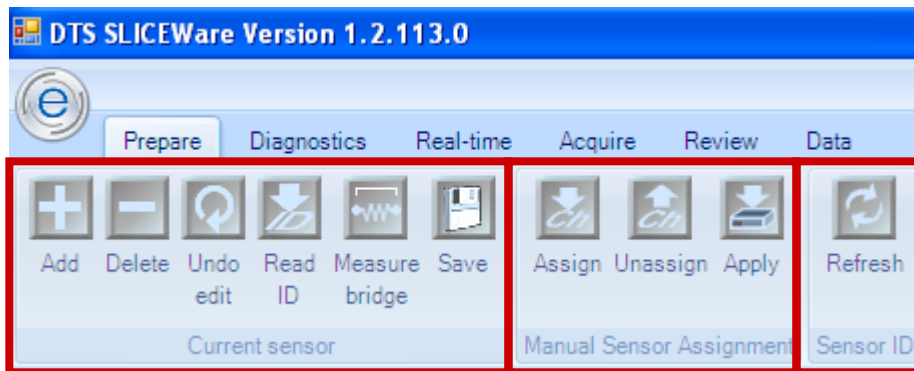
Manual Sensor Assignment

(for sensors connectors without an EID. You cannot un-assign or overwrite an auto-assigned channel)

- Assign: After highlighting a sensor in the Sensor List and highlighting an un-assigned channel in the Connected Sensors area use this to assign the sensor
- Un-assign: Remove the highlighted channel in the Connected Sensors area
- Apply: Commits the sensor setup information to SLICE
Note: A sensor that is manually applied should not have a value in the Sensor ID field and the SLICE should not have an EID installed on the connector. If the Sensor ID field is populated or an EID exists on the channel, the sensor will need to be re-applied after switching away from and then back to the Prepare tab

Sensor ID

- Refresh: The sensor IDs are read when the software is started or when a SLICE is rebooted. If sensors connections are switched, choosing refresh will read the connected IDs on the current channels



Current Sensor **Manual Sensor Assignment** **Sensor ID**

Sensor Details

GENERAL

- Serial Number: Used to identify the sensor. Can be any unique identifier. The sensor list is sorted by default with the serial number.
- Comment: User field can be any text entry
- Manufacturer: Not enabled as of 200910
- Model: Not enabled as of 200910
- Sensor ID: Enter or "READ ID" to populate

ATTRIBUTES

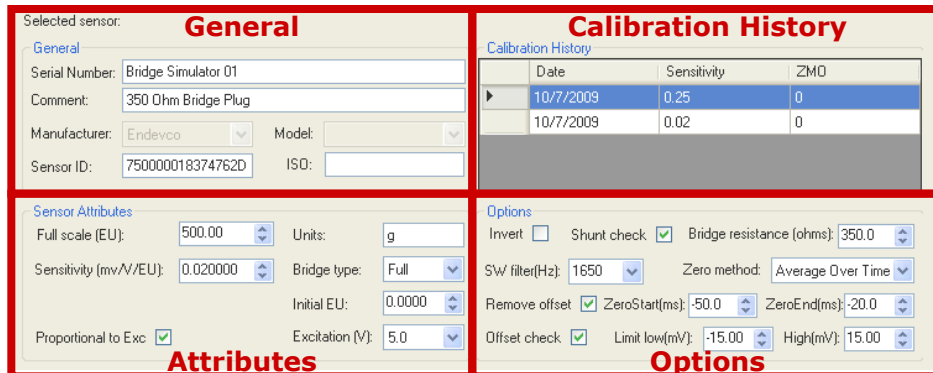
- Full Scale: The maximum expected value the sensor will be subjected to
- Units: The Engineering Units of the sensor
- Sensitivity:
 - When Proportional to Excitation is checked: This value is the calibrated sensitivity in mV/V/EU
 - When Proportional to Excitation is un-checked: This value is the calibrated sensitivity in mV/EU
- Initial EU: Typically left at 0.00. This entry may be used to insert an engineering value to the starting point of the recorded sensor
- Excitation: Leave at 5.0. Adjustment is not enabled as of 200910

CALIBRATION HISTORY

- This field is automatically updated whenever a new sensitivity is applied to the sensor attributes. You cannot enter directly into this field

Options

- Invert: When checked, the data will be inverted
- Shunt Check and Bridge Resistance: When Shunt check is checked the sensor the sensor will be have the bridge resistance measured during diagnostics and compared to the value entered in Bridge resistance
- SW Filter: Choose the frequency of a software filter to be applied to the data when viewing. This only affects the viewed data as all data stored will be as collected with the hardware anti-alias filter
- Zero Method (post download software zeroing):
 - Use Pre-Cal Zero: The Zero Measured Output (ZMO) of the sensor during calibration will be used to set the EU zero of the downloaded data
 - Average Over Time: Used in conjunction with ZeroStart and ZeroEnd, the average EU value during the Start and End window will be used to Zero the collected data. The Zero Start/End window must be set to data that will be collected. If using a negative time then the acquire tab must include this window
 - None: The actual recorded input will not be adjusted or compensated for zero level. This setting can be used to show the actual mV offset. An example may be to record a logic level signal and see the actual on/off state
- Remove Offset (hardware): When checked, this will remove the ZMO during diagnostics. This will "electrically" zero the input
- ZeroStart/End: See Zero Method→Average Over Time
- Offset Check: Used in conjunction with Limit Low/High during diagnostics. When checked, the ZMO is measured and compared the Low/High limits as a pass/fail criteria during diagnostics

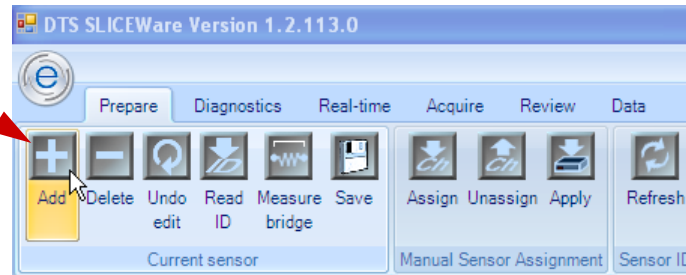


The screenshot displays the 'Sensor Details' software interface with four main sections:

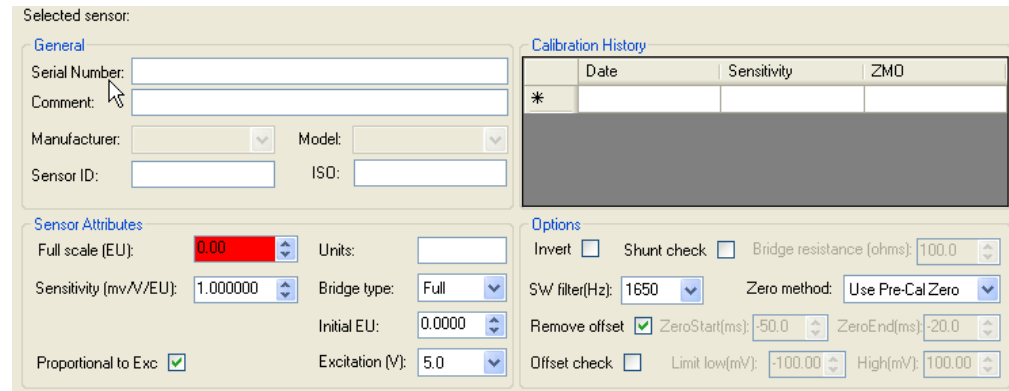
- General:** Fields for Serial Number (Bridge Simulator 01), Comment (350 Ohm Bridge Plug), Manufacturer (Endevco), Model, Sensor ID (750000018374762D), and ISO.
- Calibration History:** A table with columns Date, Sensitivity, and ZMO. It shows two entries for 10/7/2009 with sensitivities of 0.25 and 0.02, and ZMO values of 0.
- Attributes:** Fields for Full scale (EU) (500.00), Units (g), Sensitivity (mV/V/EU) (0.020000), Bridge type (Full), Initial EU (0.0000), Proportional to Exc (checked), and Excitation (V) (5.0).
- Options:** Checkboxes for Invert, Shunt check (checked), Remove offset (checked), and Offset check (checked). Fields for Bridge resistance (ohms) (350.0), SW filter (Hz) (1650), Zero method (Average Over Time), ZeroStart (ms) (-50.0), ZeroEnd (ms) (-20.0), Limit low (mV) (-15.00), and High (mV) (15.00).

Step-by-Step: Adding a New Sensor

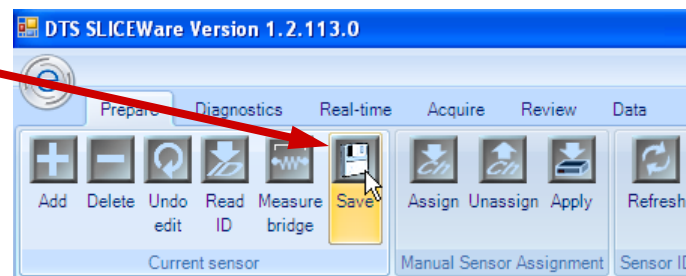
- On the PREPARE tab, click the Add button in the "Current Sensor" button group



- Edit the Sensor Details Field

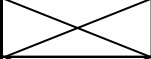
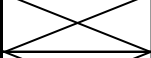
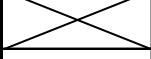

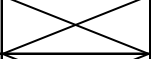

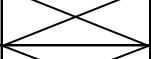



- Select Save in the "Current Sensor" button group



SLICE Base LED Indicator



Function	STS	PWR
Initial Boot	(RGB)	(RGB)
Power On Okay		G
Power On Low		R
Power On w/USB		B
Active USB Comm	(G)	
Arm in Recorder	B	
Arm in Circular	G	
After Start Record	G	
Trigger	G	

Key

Strobe	()
Solid Red	R
Solid Green	G
Solid Blue	B
Don't Care	