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DTS Support

SLICE systems and SLICEWare are designed to be reliable and simple to operate. Should you need assistance, DTS has support engineers worldwide with extensive product knowledge and test experience to help via telephone, e-mail or on-site visits.

The best way to contact a DTS support engineer is to e-mail support@dtsweb.com. Your e-mail is immediately forwarded to all DTS support engineers worldwide and is typically the fastest way to get a response, particularly if you need assistance outside of normal business hours. For assistance by telephone, please go to http://dtsweb.com/support/techsupport.php to find the phone number appropriate for your region of the world.

Introducing SLICEWare

The SLICEWare software application allows for easy:

- Test set-up,
- Sensor database management,
- Real-time sensor check-out,
- Test execution,
- Data download and viewing,
- Data export.

SLICE API (Application Programmers Interface) and LABView drivers are also available.

Please contact technical support (support@dtsweb.com) for the latest update to your software version.

1. Software

This section covers software installation and use. *See Appendices A, B and C for additional information regarding file formats and how to update the Base SLICE firmware.*

1.1. Basic Requirements

SLICEWare is a Windows®-based program. Minimum PC specifications are:

- Windows XP, Windows Vista, or Windows 7. 32- and 64-bit versions are supported.
- 1 GHz or faster processor
- 2 GB RAM minimum. More RAM is important for longer/higher sample rate data acquisition.
- 100 MB disk space for software plus storage for test data.
- 1024 x 768 minimum screen resolution.

1.2. Data Collection Concepts

SLICE is a standalone data logger. Once it is armed, the PC can be disconnected if desired. (Power must remain connected, however.) After receiving a Start Record or trigger signal, the SLICE autonomously collects data, storing it to flash memory with no user interaction. After the test, the user can reconnect the PC to download the data.

There is also a real-time mode in the SLICEWare software application that allows the user to check channel inputs on an oscilloscope-looking screen. (This data is can be logged.)

1.2.1. Data Collection Modes

SLICE supports two data collection modes: Circular Buffer and Recorder. (Note: SLICEWare cannot simultaneously display the data while the system is recording.)

Circular Buffer Mode

In Circular Buffer mode, the user can program SLICE to record pre- and post-trigger data. Time Zero (T=0) is marked when the trigger signal is received.

Recorder Mode

Recorder mode starts when a Start Record signal is received and continues for the time specified in the test set-up. If a trigger signal is received sometime after the Start Record, this is marked as T=0.

NOTE:

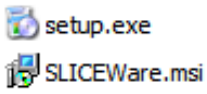
An event or trigger signal applied anywhere in the SLICE chain is distributed throughout the system. This applies to level trigger as well.

1.3. SLICEWare

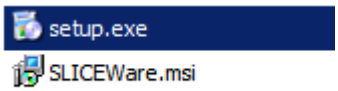
This section discusses the basics of SLICE data collection using the SLICEWare application.

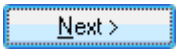
1.3.1. Software Installation

Locate the installation files on the CD or flash drive provided.



Double-click the "set-up.exe" file to begin installation.



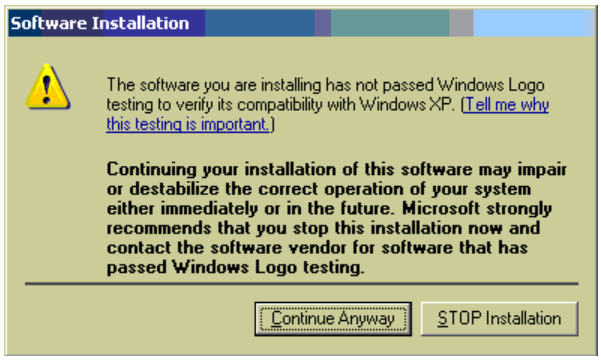
Click 

for each of the screens: set-up wizard, driver installation, installation folder and confirming installation.

You must allow the driver to be installed. You may see these screens:

For Windows® Vista or Windows® 7, click to "Install this driver software anyway."

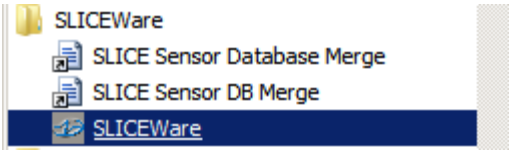
For Windows® XP, click "Continue Anyway."



Note: Windows® will ask you to reinstall the hardware driver each time you connect the SLICE Stack to a different USB port.

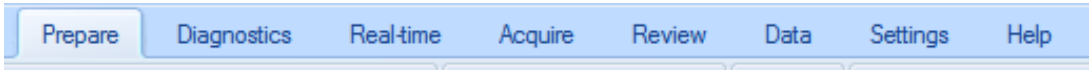
To start SLICEWare, either double-click the 

icon on the desktop or navigate to the SLICEWare folder in the Start menu:



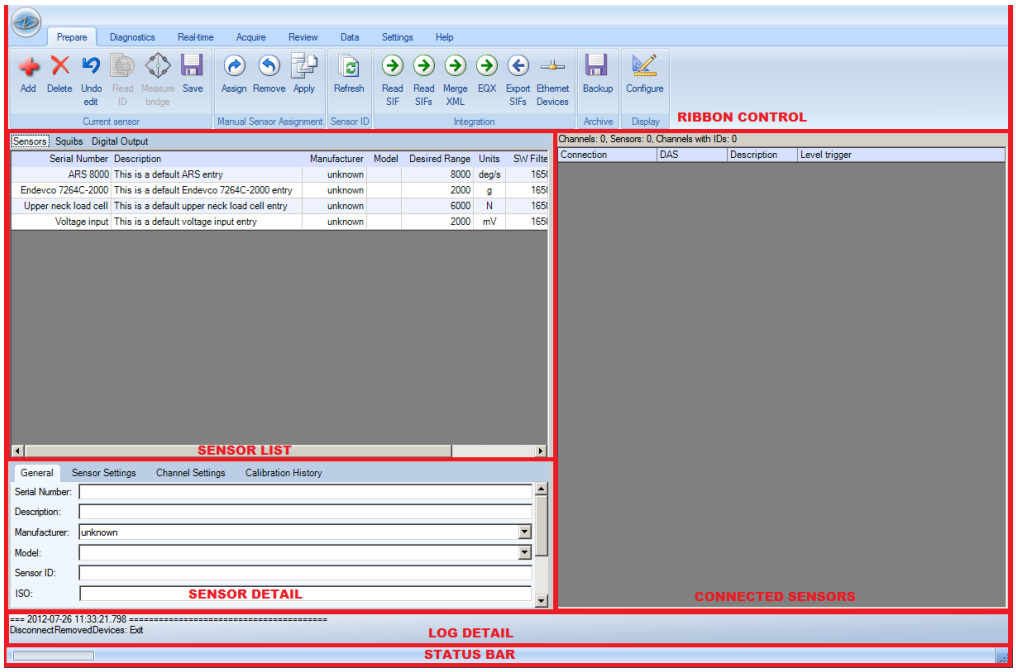
1.3.2. Tab Menu Descriptions

1.3.2.1. Prepare

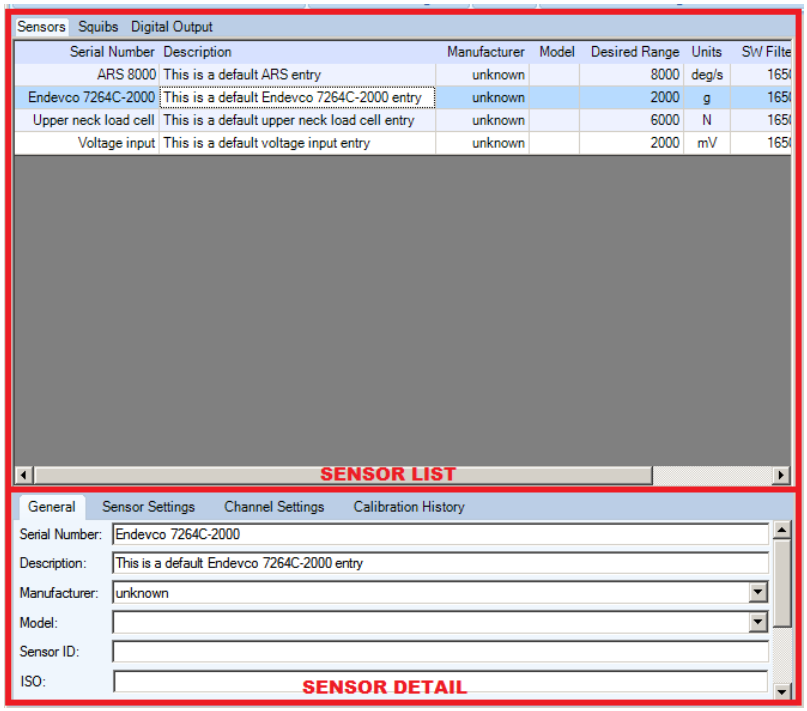


This tab identifies the relationship between available sensors and the attached SLICE units. Sensor information can be added, removed, viewed, edited or assigned to channels on connected data acquisition hardware.

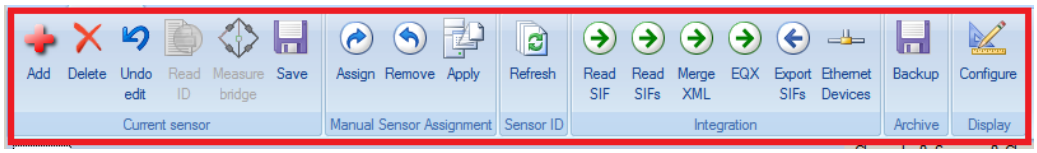
The image below highlights the different screen areas. The red boxes and type are used in this manual only (not visible in actual software).



Click anywhere on a line in the Sensor List to show the Sensor Details for that sensor.



Ribbon Control Groups



Current Sensor

- **Add:** Will add a blank 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

The user can manually assign and remove sensors that do not have an EID. The user 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 set-up 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 sensor connections are switched, choosing refresh will read the connected IDs on the current channels.

Integration

- **Read SIF:** This button imports and merges a sensor information file (SIF) from an existing DTS TDAS Control installation into the current SLICEWare Sensor Database.
- **Read SIFs:** This button imports and merges multiple sensor information files (SIF) from an existing DTS TDAS Control installation into the current SLICEWare Sensor Database.
- **Merge XML:** This button imports and merges a SLICEWare Sensor Database file into the current SLICEWare Sensor Database.
- **EQX:** This button imports and merges an Equipment Exchange (EQX) file into the current SLICEWare Sensor Database.
- **Export SIFs:** This button exports the current SLICEWare Sensor Database to Sensor Information Files in a folder selected by the user.
- **Ethernet Devices:** This button allows the user to connect to a SLICE Distributor or TDAS hardware by entering the hardware's IP.

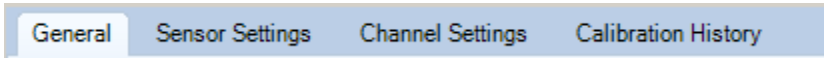
Archive

- **Backup:** This button will back up the current SLICEWare settings and database files to a location specified by the user.

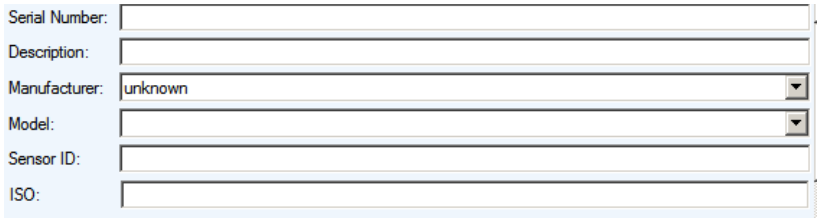
Display

- **Configure:** This button allows the user to selectively change the layout of the Sensor Grid and Channel List

Sensor Details

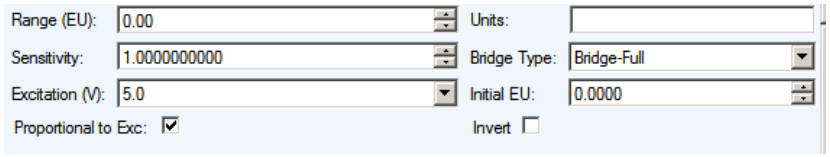


General



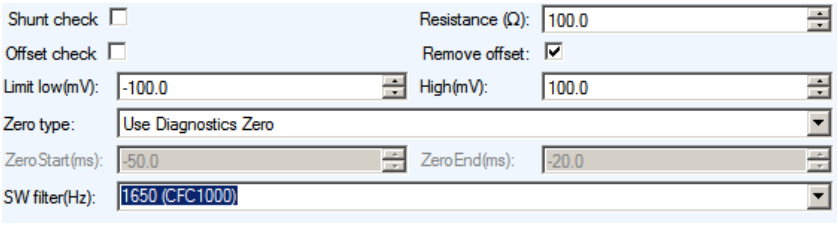
- **Serial Number:** Used to identify the sensor. Can be any unique identifier. The sensor list is sorted by default with the serial number.
- **Description:** Used as a secondary identifier of the sensor. The Description is displayed as the sensor identifier by default in the connected sensors section.
- **Manufacturer:** Use to select the sensor manufacturer. This list is populated by the Model.SensorDB.xml file.
- **Model:** Use to select the sensor model. This list is populated by the Model.SensorDB.xml file.
- **Sensor ID:** Enter or "READ ID" to populate.
- **ISO:** Used to specify an ISO code for a sensor.

Sensor Settings



- **Range (EU):** 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.
- **Proportional to Exc:** Used to change the way sensitivity is calculated.
- **Invert:** Used to invert a channel.

Channel Settings



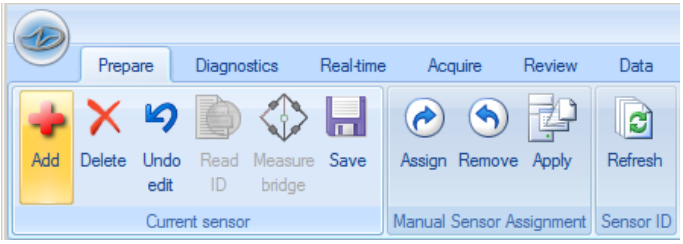
- **Shunt Check and Bridge Resistance:** When Shunt Check is checked, the sensor will have the bridge resistance measured during diagnostics and compared to the value entered in Bridge resistance.
- **SW Filter (Hz):** Choose the frequency of a software filter to be applied to the data when viewing. 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 Diagnostics Zero:** The Zero Measured Output (ZMO) of the sensor during Diagnostics 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.
- **Zero Start (ms)/End (ms):** 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.

Calibration History

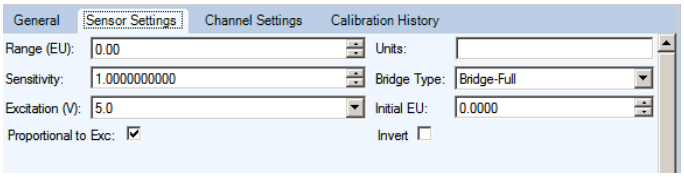
- This field is automatically updated whenever a new sensitivity is applied to the sensor attributes. You cannot enter directly into this field.

Step-by-Step Procedure to Add a New Sensor

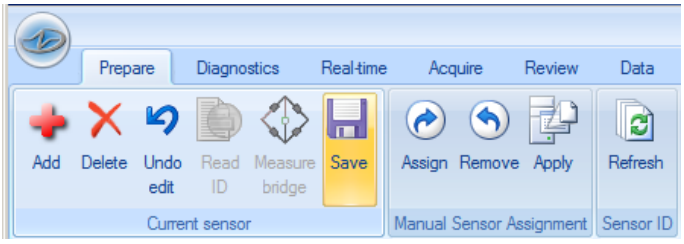
1. On the PREPARE tab, click the "Add" button in the "Current Sensor" button group



2. Edit the Sensor Details Field

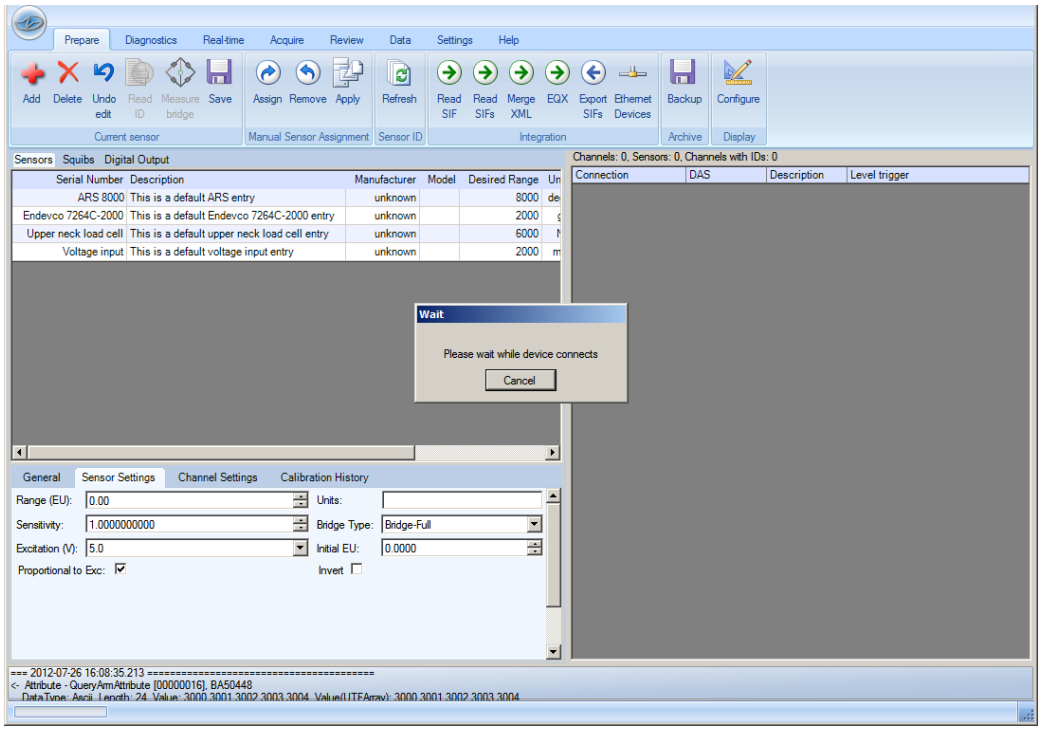


3. Select "Save" in the "Current Sensor" button group

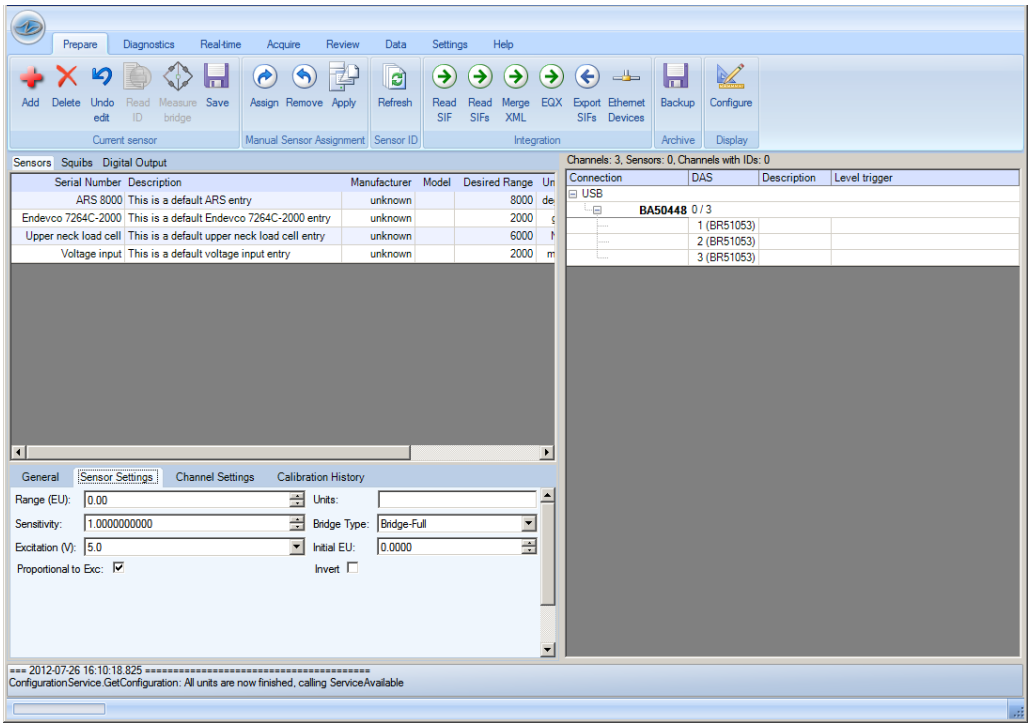


Connect SLICE …

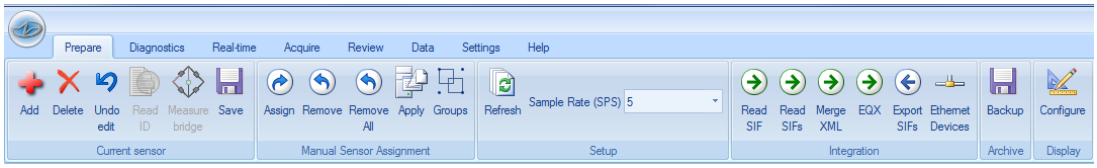
Connect the USB and power up the SLICE system…



SLICE hardware appears on right hand side …



Sample Rate



The sample rate dropdown selects and configures SLICE PRO units and channels for the selected samples per second (SPS). Selecting a sample rate has implications on the maximum useable input voltage bandwidth and hardware anti-aliasing filtering, so the sample rate is set prior to diagnostics. Contact DTS Technical Support for more details on the trade-offs between gain and bandwidth.

When the sample rate is set, SLICEWare will automatically configure SLICE PRO units for the maximum number of channels available at the sample rate.

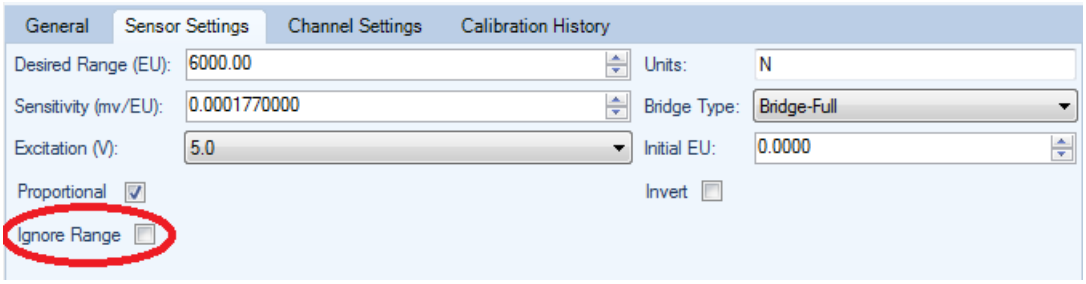
Maximum Sample Rate of SLICE PRO SIM

Sample Rate	Maximum Channels
500,000 sps	18
600,000 sps	15
700,000 sps	12
1,000,000 sps	9

Hardware AAF and Input Range

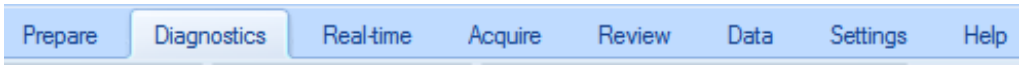
By default, the hardware anti-aliasing filter (AAF) is configured to 1/5 of the sample rate. For SLICE PRO hardware, the hardware AAF has implications on the maximum usable input range.

Some sensors should be configured to ignore the input range available at the current hardware AAF. This can be done in the sensor settings.



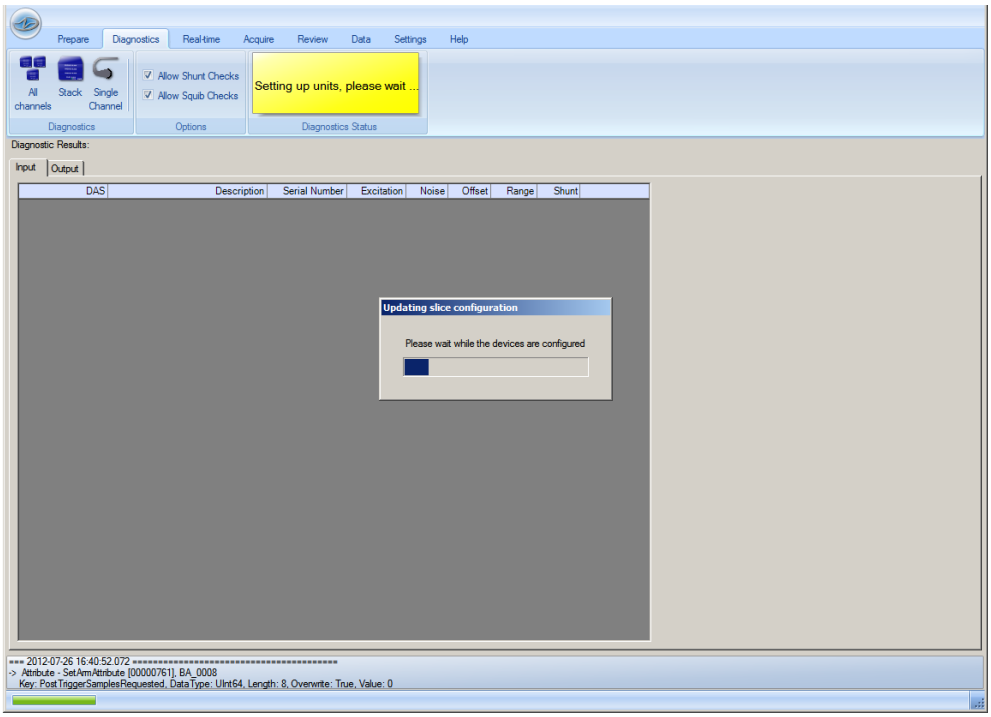
Sample Rate	Hardware AAF	Minimum Range	Maximum Range
1,000,000 sps	200,000 Hz	±15.6 mV	±500 mV
500k – 1M sps	100,000 Hz	±3.9 mV	±1250 mV
<500k sps	45,000 Hz	±1.95 mV	±2500 mV

1.3.2.2. Diagnostics

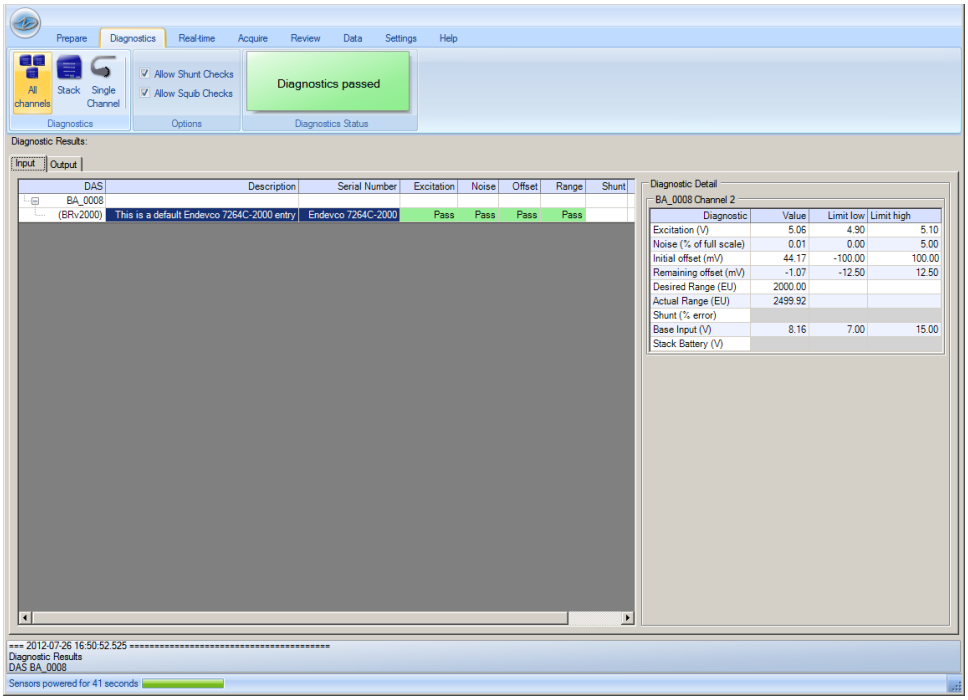


This tab ensures that the connected hardware is operating normally. Hardware diagnostics include checks for battery level, excitation voltage, noise and expected offset.

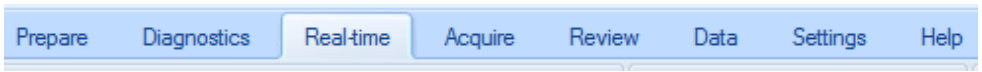
SLICEWare configures any connected channels …



Detailed calibration results for all channels …

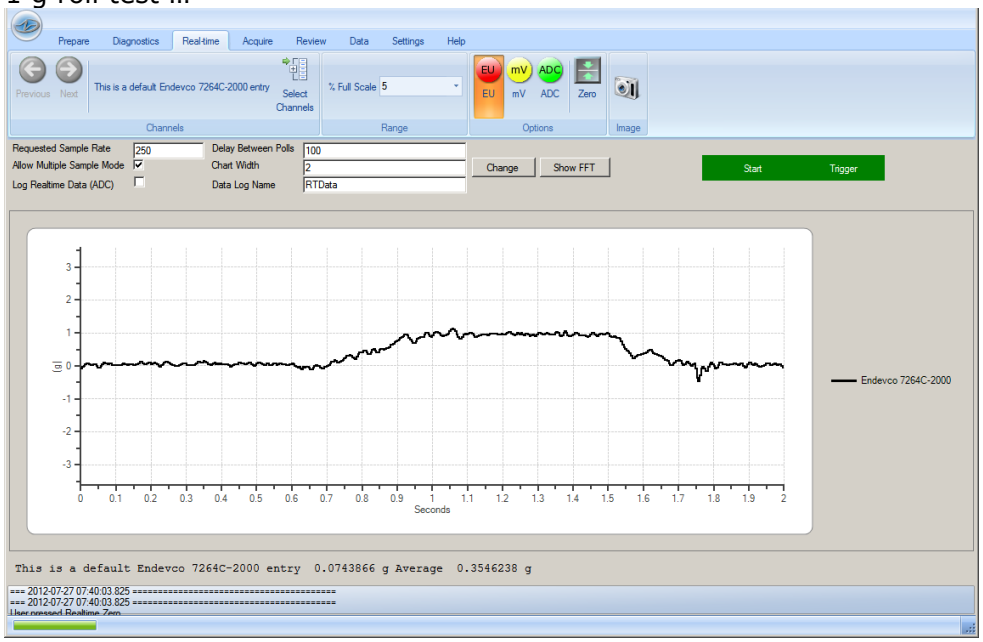


1.3.2.3. Real-time

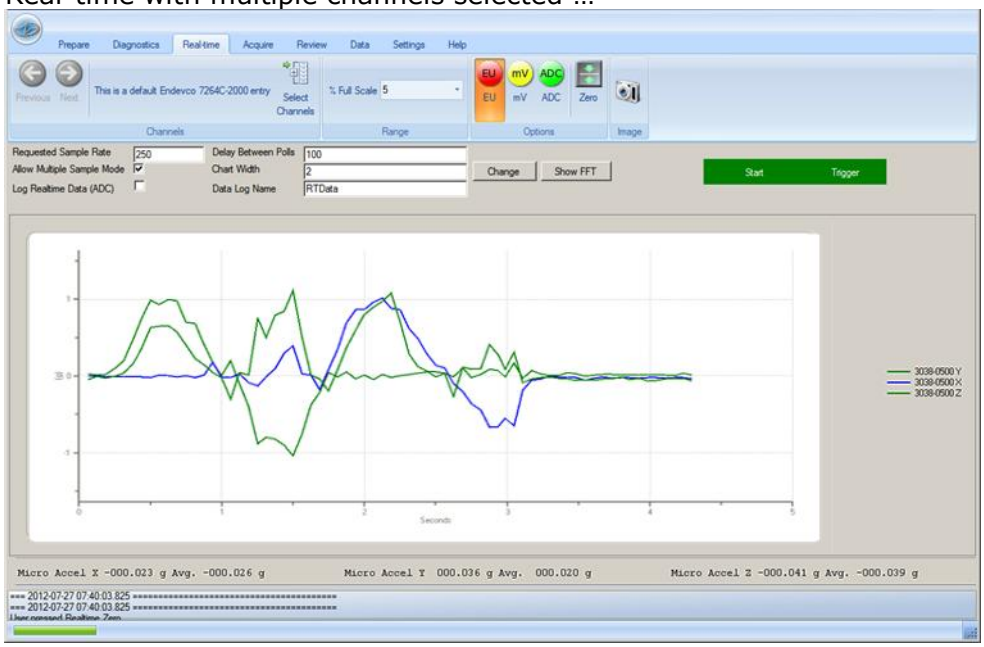


This tab shows data input to the attached SLICE hardware in real-time. It is a useful tool for establishing confidence in the current hardware configuration prior to data collection.

1 g roll test …



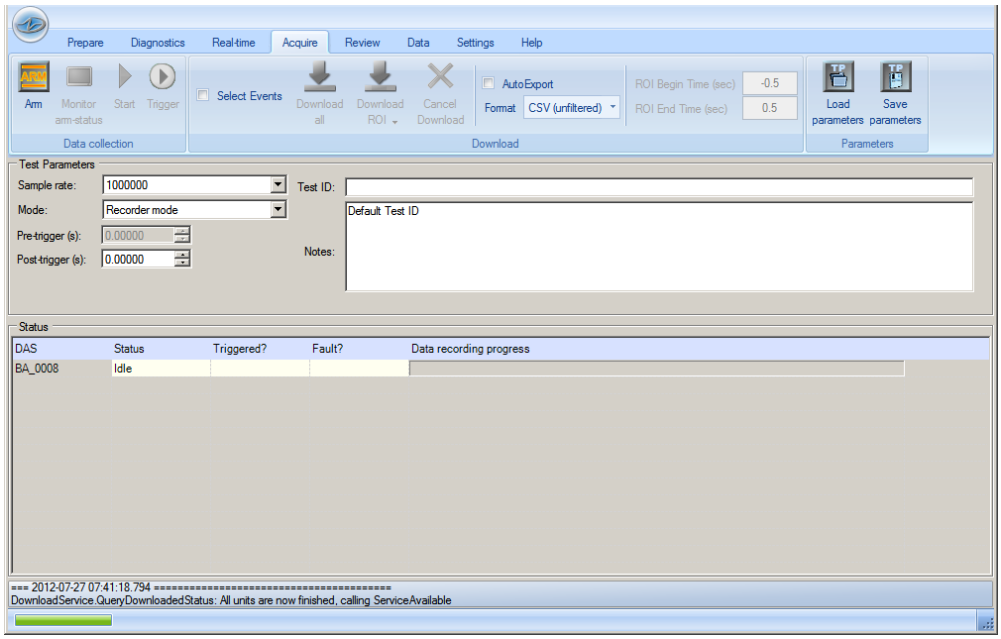
Real-time with multiple channels selected …



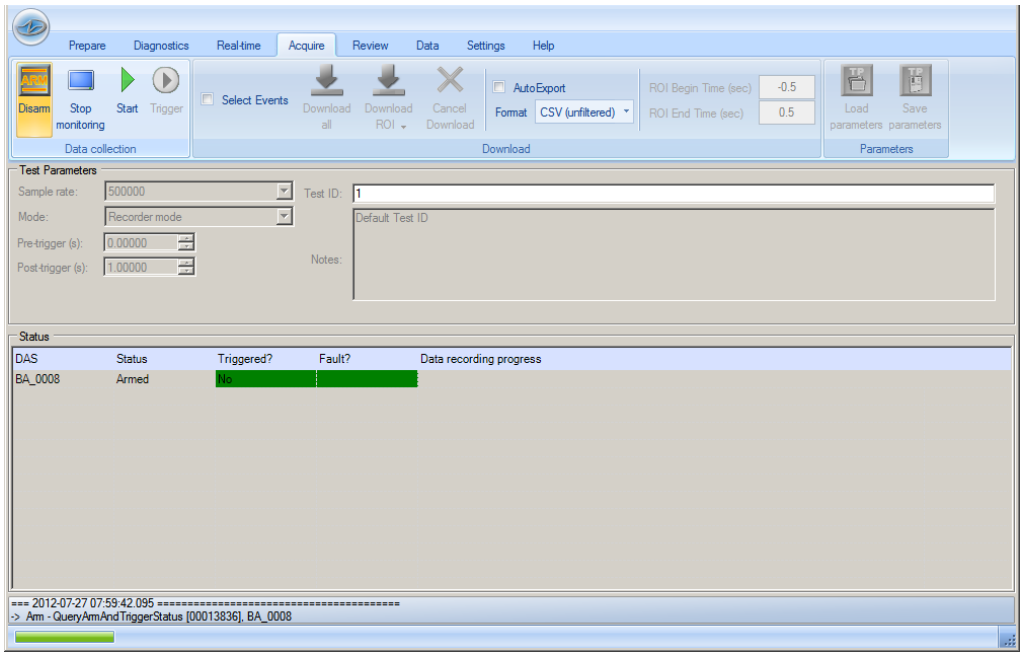
1.3.2.4. Acquire

This tab configures and controls the data acquisition process. The user enters the test name, description, sample rate, acquisition mode (Circular Buffer or Recorder mode), pre- and post-trigger times and then prepares the system for data acquisition with the arm command. After the test is completed, the user can use the download command to view the data.

Enter sampling rate, pre and post trigger times, etc. …

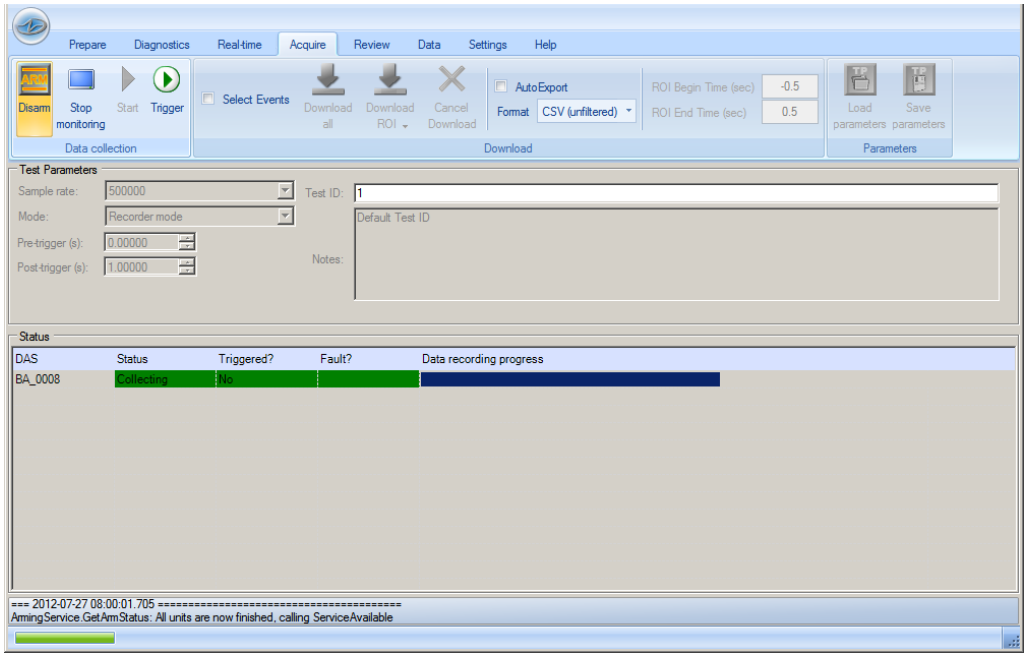


System Armed …

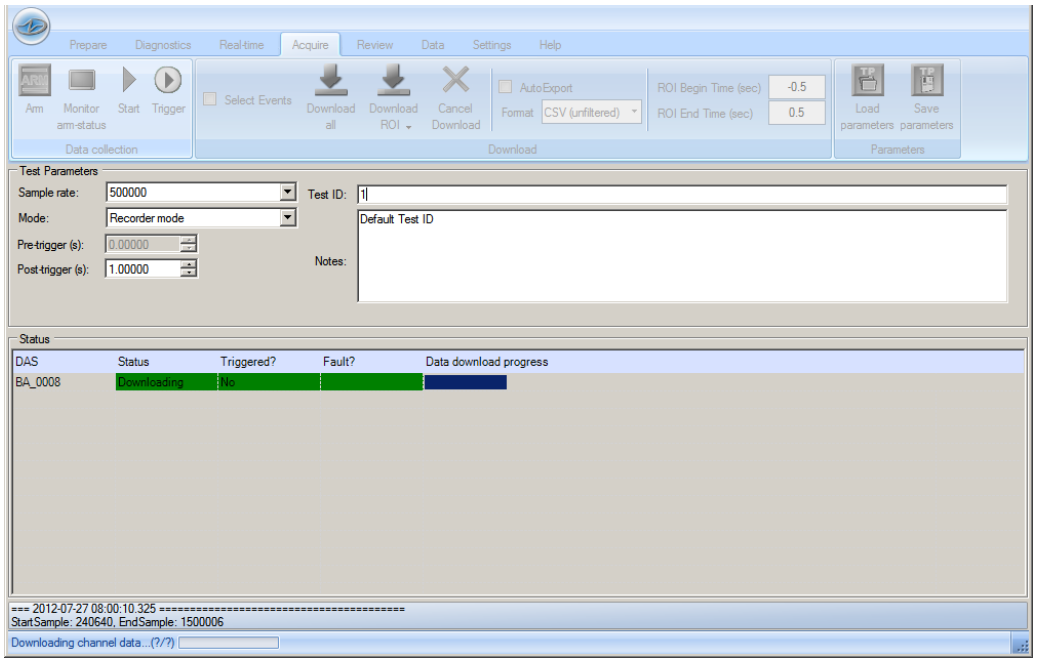


System triggered and acquiring data …

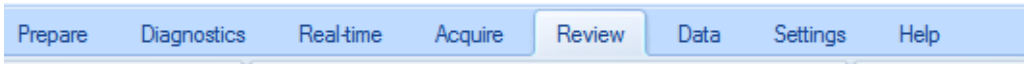
Note: SLICEWare cannot simultaneously display the data while the system is recording.



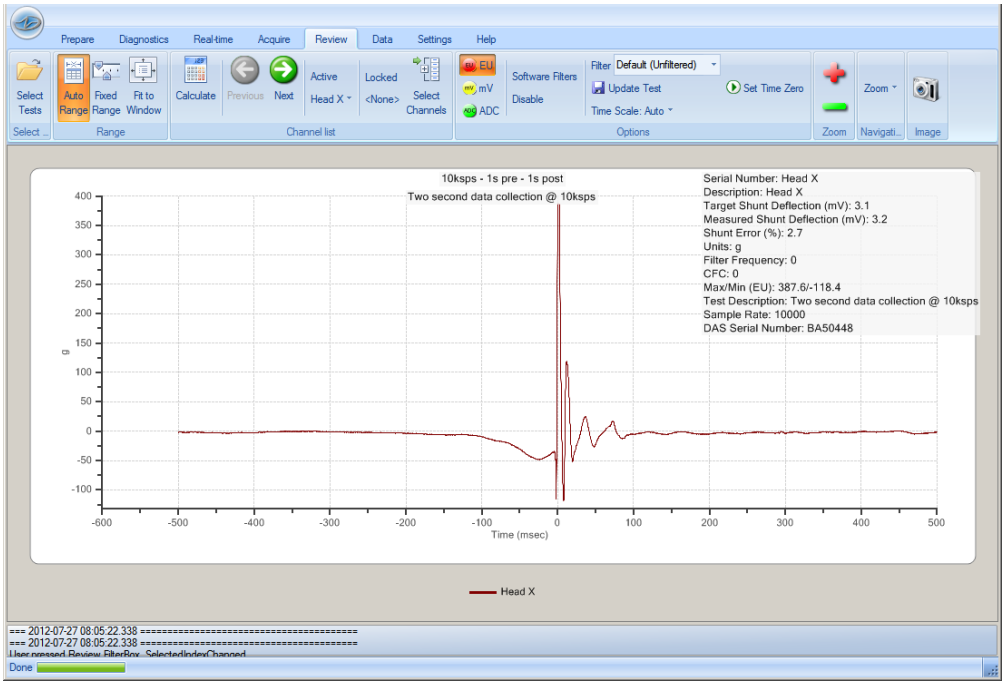
Downloading data …



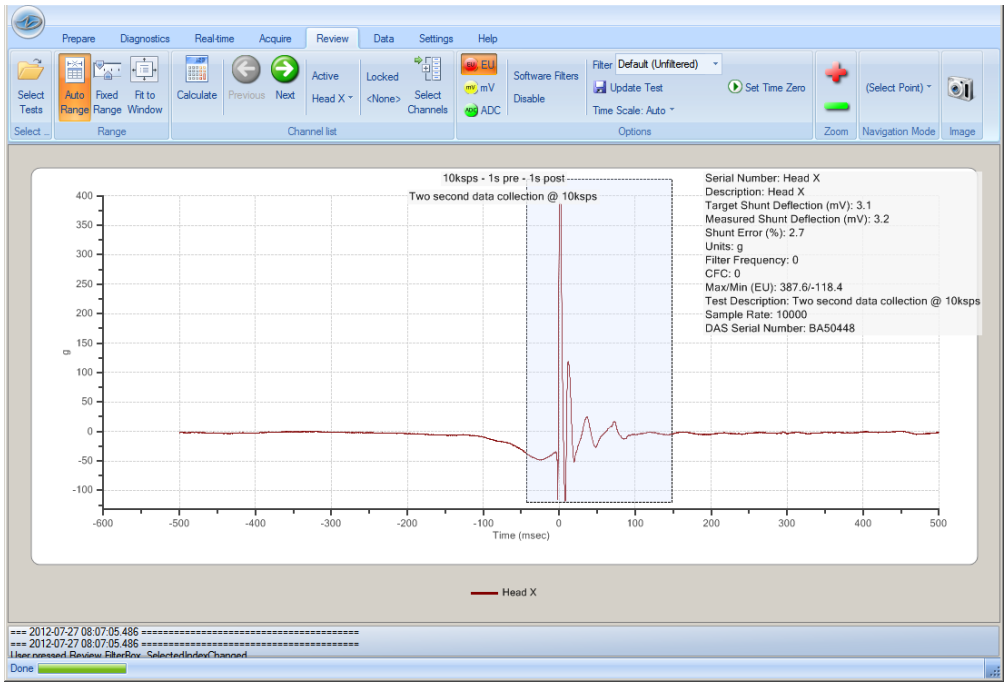
1.3.2.5. Review



This tab displays collected data. Previously downloaded tests can be viewed and examined on a per-channel basis.



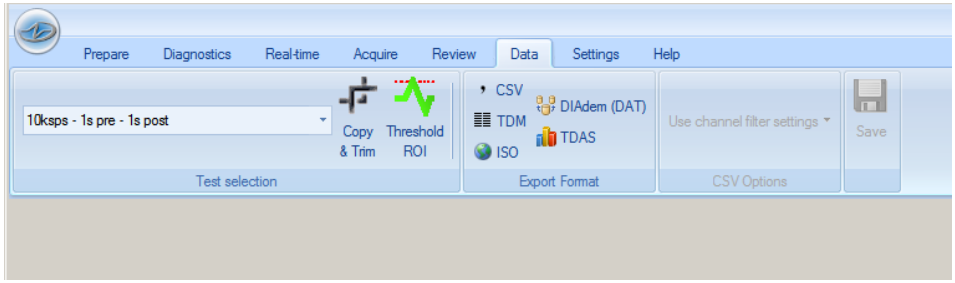
Dynamic "zoom" selection …



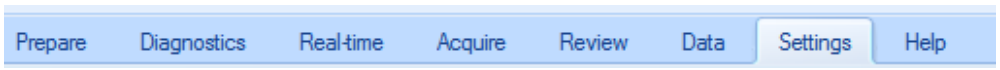
1.3.2.6. Data

This tab provides export options for collected data. Export options include CSV, ISO and DIAdem formats.

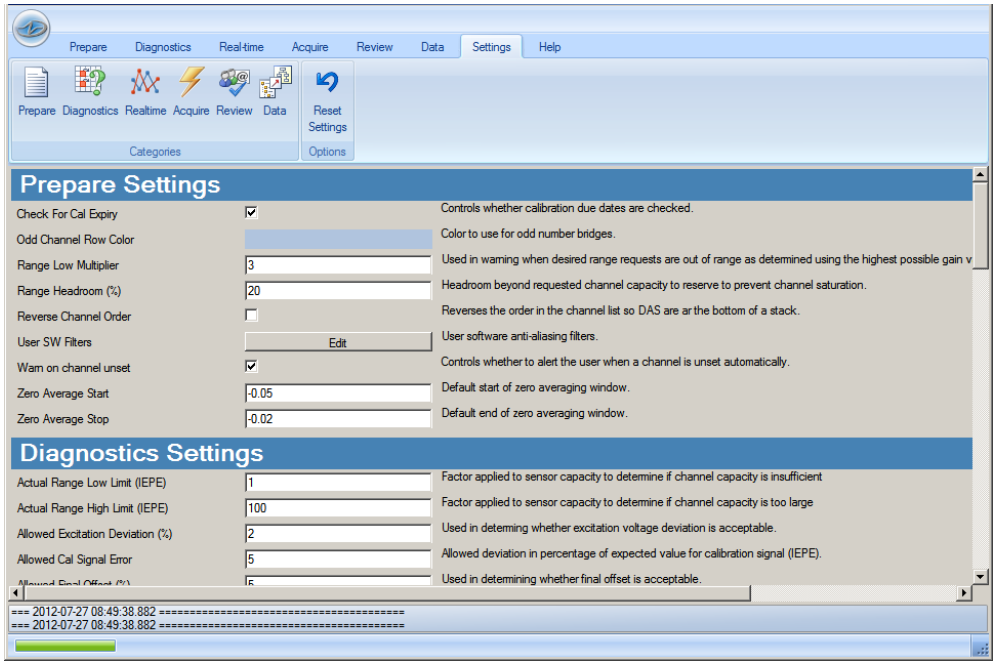
Export options for CSV, TDM, ISO DIAdem (DAT) and TDAS formats …



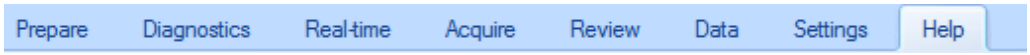
1.3.2.7. Settings



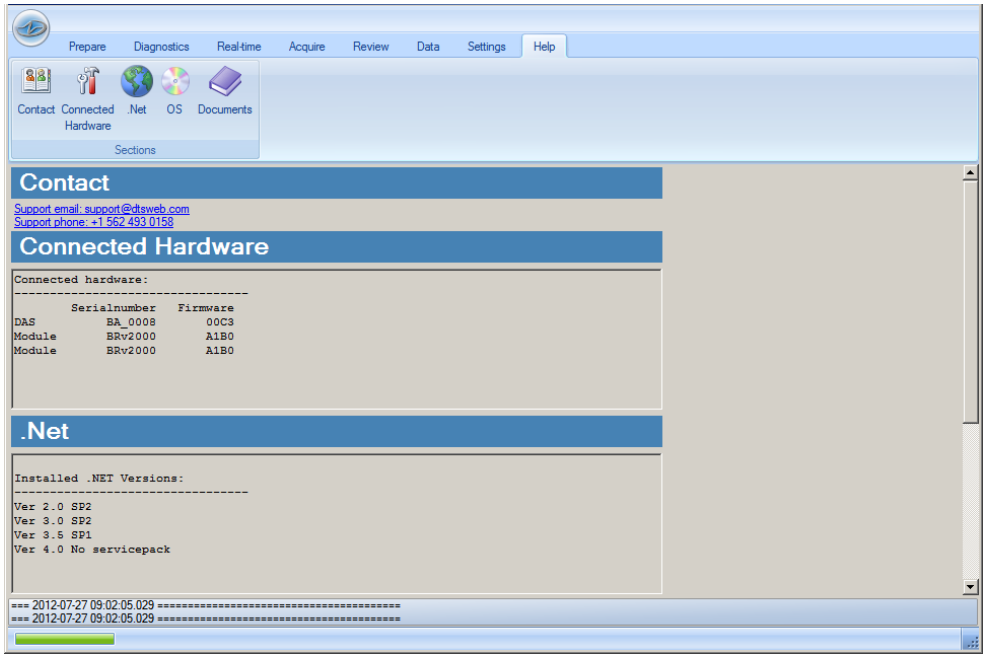
This tab provides an interface to modify basic settings related to each tab.



1.3.2.8. Help



This tab provides information about contacting technical support, connected hardware, the computer operating system that SLICEWare is currently running on, and links DTS software and hardware manuals.



Appendix A: SLICEWare XML File Format

Overview

The .DTS file is an XML based file that contains information about the overall test and the individual channels. Some of the information may be redundant with information stored in the binary channel header.

The attributes and relationships of each XML node are described below.

XML Structure

<Test>

The Test tag is the outer most tag. It contains the following attributes and describes details common to the entire test.

Name	Data Type	Description
Id	String	The name of the test, typically the same as the .DTS file name
Description	String	The description of the test provided by the user
InlineSerializedData	Boolean	
Guid	Windows UUID string	A unique identifier assigned to each event
FaultFlags	Integer (UInt16)	16-bit bit array Bit 0: Incoming status line dropped Bit 1: ADC Buffer Overrun Bit 2: Flash CRC Error Bit 3: Trigger before start Bit 4: Input voltage low Bit 5: Input voltage high Bit 6: Back-up voltage low Bit 7: Back-up voltage high Bit 8-15: Unused

<Modules>

Within the Test node will be a list of modules contained within a <Modules></Modules> tag. A module corresponds to a data acquisition system—for example, an entire Stack. Each module will have its own <Module> tag with the following attributes:

Name	Data Type	Description
AaFilterRateHz	Integer	The name cut off frequency of the hardware anti-alias filter used during the test
Number	Integer	A sequential number assigned to each module within the test
SerialNumber	String	The factory assigned serial number of the Base

Name	Data Type	Description
NumberOfSamples	Integer	The number of samples stored in each channel file. This will be fewer than the number of samples originally requested by the user if the data has been subsampled or if only a portion of the data was downloaded.
UnsubsampledNumberOfSamples	Integer	The total number of samples collected during data acquisition
PostTriggerSeconds	Double	The number of seconds of recorded data that the user requested after T=0
PreTriggerSeconds	Double	The number of seconds of recorded data that the user requested before T=0
RecordingMode	String	Either the value RecorderMode or CircularBuffer. Other values will be added in the future.
SampleRateHz	Integer	The rate at which sampling occurred during data collection
StartRecordSampleNumber	Integer	The sample number at which the start signal was first detected. The value will always be 0 when RecordingMode=CircularBuffer.
NumberOfChannels	Integer	The number of user configured channels within the module
InlineSerializedData	Boolean	

<TriggerSampleNumbers>

This is a list (possibly 0 length) of trigger sample numbers. In the Circular Buffer case, there will be one trigger sample number. In Recorder mode, the trigger is optional. In the case of multiple event mode, there may be more than one trigger sample number.

<Channels>

The Channels tag contains a list of channel elements. It should have the same number of entries as NumberOfChannels in the Module tag. The type of the child elements will depend on the type of signal conditioning SLICE used.

<AnalogInputChanel>

The AnalogInputChanel tag corresponds to a Bridge SLICE channel. (Note: There is a typo in the tag name and "Chanel" is misspelled. It has been retained for backward compatibility.) Many of the attributes indicate how the channel was configured during the test. The AnalogInputChanel element has the following properties:

Name	Data Type	Description
ChannelType	String	This identifies the representation of the data contained in the .BIN file. Currently this value is always expected to be DTS.Serialization.Test+Module+AnalogInputChannel.

Name	Data Type	Description
Number	Integer	The channel number within the signal conditioning unit. In a Bridge SLICE, channels are numbered 0–2.
Start	Date	Currently unused
Bridge	String	Either FullBridge or HalfBridge
BridgeResistanceOhms	Integer	The specified bridge resistance used during the shunt check
ChannelDescriptionString	String	The user provided description for the channel
Description	String	The user provided description for the sensor; currently the same as ChannelDescriptionString
DesiredRange	Integer	The user requested full scale
Sensitivity	Double	The sensitivity of the sensor in either mv/V/EU or mv/EU depending on ProportionalToExcitation
SoftwareFilter	String	The requested filtering to apply to this channel. Stored data is unfiltered, and this value must be used to apply proper filtering. Typical values are "1650hz" for CFC1000.
ProportionalToExcitation	Boolean	Indicates if the output of this sensor is proportional to excitation. Used in conjunction with Sensitivity.
IsInverted	Boolean	*(Optional)* Indicates if the data should be inverted before presenting to the user. If missing, this attribute is considered 'false'.
IsSubsampled	Boolean	*(Optional)* Indicates if the data stored on disk is at a lower sample rate than the original data collection. If missing, this attribute is considered 'false'.
Eu	String	The user provided Engineering Units (EU) (e.g., mm, g, or msec2)
SerialNumber	String	The serial number of the sensor used with this channel
CalSignalEnabled	Boolean	Applies to IEPE SLICE only.
ShuntEnabled	Boolean	For Bridge SLICE only. Indicates if the user requested the channel be shunted during diagnostics.
RemoveOffset	Boolean	Indicates if the user requested hardware offset compensation be used during diagnostics
ZeroMethod	String	Identifies the type of software offset compensation that should be used. If the value is "UsePreCalZero," then the Pre Calibration zero value stored in the channel file should be used. If the value is "AverageOverTime," then an average value computed from the channel data should be used.
ZeroAverageWindowBegin	Double	If ZeroMethod=AverageOverTime, this is the beginning of the window to be used for computing the average
ZeroAverageWindowEnd	Double	If ZeroMethod=AverageOverTime, this is the end of the window to be used for computing the average

Name	Data Type	Description
InitialEu	Double	A value provided by the user that should be subtracted from all scaled data in addition to the selected ZeroMethod
UnsubsampledSampleRateHz	Integer	The sampling rate used during data collection. Valid only if IsSubsampled=true.
MeasuredShuntDeflectionMv	Double	*(Optional)* If a shunt test was performed, the actual deflection of the shunt
TargetShuntDeflectionMv	Double	*(Optional)* If a shunt test was performed, the expected shunt deflection
MeasuredExcitationVoltage	Double	*(Optional)* The measured excitation voltage, if available. Used by SLICEWare for scaling proportional-to-excitation sensor data if "factory" excitation voltage is not available.
FactoryExcitationVoltage	Double	*(Optional)* The factory excitation voltage, if available. Used by SLICEWare for scaling proportional-to-excitation sensor data.
TimeOfFirstSample	Double	The time relative to T=0 of the first sample

Appendix B: SLICEWare Binary File Format

Bin File Header Version 4 (SLICEWare versions 1.06 and higher)

Offset	# of bytes	Data Type	Description
0	4	UInt32	Magic key to identify file: 0x2C36351F
4	4	UInt32	Version number of this file header (currently 4)
8	8	UInt64	Offset (in bytes) from start of file to where data samples start
16	8	UInt64	Number of samples in this file
24	4	UInt32	Number of bits per sample
28	4	UInt32	0 = Unsigned samples, 1 = signed samples
32	8	Double	Sample rate
40	2	UInt16	Number of triggers. May be 0
42	N = Number of triggers * 8	UInt64	Trigger sample number
N + 42	4	Int32	Pre Test zero level (in counts)
N + 46	4	Int32	Removed ADC (in counts)
N + 50	4	Int32	Pre-Test Diagnostics Level (in counts)
N + 54	8	Double	Pre-Test Noise (Percentage of Full Scale)
N + 62	4	Int32	Post Test Zero Level (in counts)
N + 66	4	Int32	Post Test Diagnostics Level (in counts)
N + 70	4	Int32	Data Zero Level (in counts)
N + 74	8	Double	Scale Factor mV (mV/Count)
N + 82	8	Double	Scale factor EU (mV/EU or mV/V/EU)
N + 90	2	Int16	EU field length (with terminator)
N + 92	X = Length of EU field	Char	Engineering units (without NULL termination)
N + 92 + X	8	Double	Excitation
N + 100 + X	4	Int32	Trigger Adjustment Samples (reserved)
N + 104 + X	4	Int32	Zero mV (in counts)
N + 108 + X	4	Int32	Window Average (in counts)

Offset	# of bytes	Data Type	Description
N + 112 + X	4	Int32	Original offset (in counts)
N + 116 + X	16	Char []	ISO Code
N + 132 + X	4	Int32	CRC32
N + X + 136 64bit (ulong) offset found in 3rd file field	Size of Sample Data	16-, 24-, or 32-bit depending on "Number of bits per sample"	DATA SAMPLES START HERE

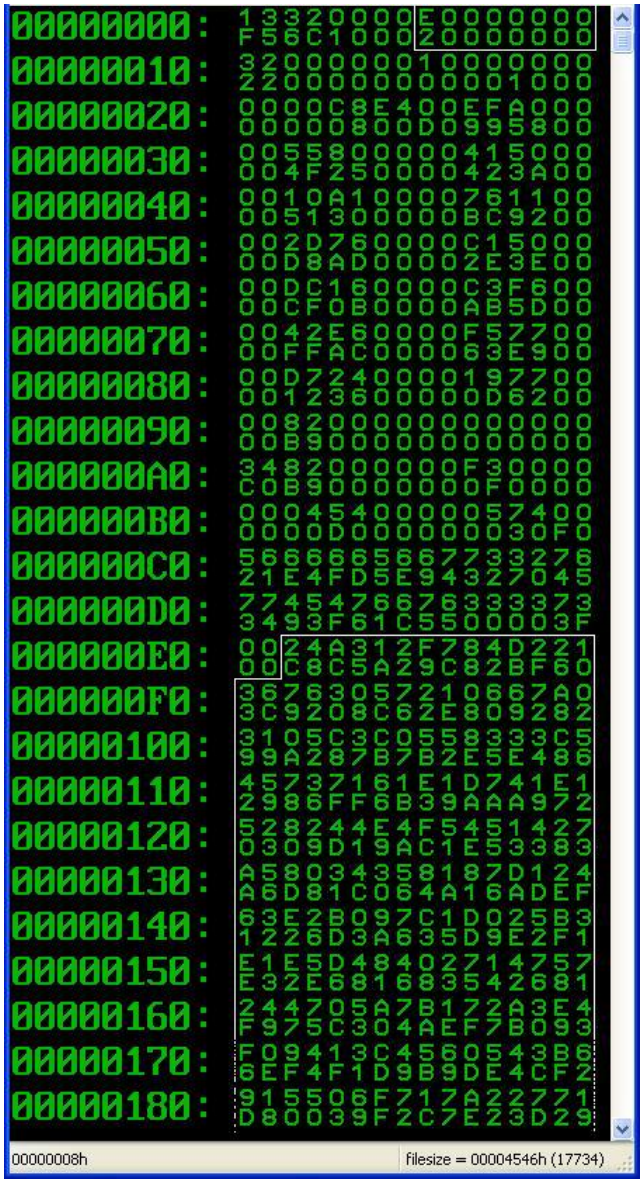
Bin File Header Version 1 (SLICEWare versions prior to 1.06)

Offset	# of bytes	Data Type	Description
0	4	UInt32	Magic key to identify file: 0x2C36351F
4	4	UInt32	Version number of this file header (currently 1)
8	8	UInt64	Offset (in bytes) from start of file to where data samples begin
16	8	UInt64	Number of samples in this file
24	4	UInt32	Number of bits per sample
28	4	UInt32	0 = Unsigned samples, 1 = signed samples
32	8	Double	Sample rate
40	2	UInt16	Number of triggers. May be 0.
42	N = Number of triggers * 8	UInt64	Trigger sample number
N + 42	4	Int32	Pre Test zero level (in counts)
N + 46	4	Int32	Pre Test Cal level (in counts)
N + 50	8	Double	Pre test noise as a percent of FS
N + 58	4	Int32	Post test zero level (in counts)
N + 62	4	Int32	Post test cal level (in counts)
N + 66	4	Int32	Data-Zero level (in counts)
N + 70	8	Double	Scale factor MV (mV/Count)
N + 78	8	Double	Scale factor EU mV/EU (non-proportional); mV/V/EU (proportional)
N + 86	2	UInt16	Number of bytes in engineering unit field + 1
N + 88	X = Length of EU field	Array/string	Engineering unit (without NULL termination)
N + X + 88	16	Char	16 character ISO code
N + X + 104	4	UInt32	CRC32 for entire file

Offset	# of bytes	Data Type	Description
N + X + 108 64bit (ulong) offset found in 3rd file field	Size of Sample Data	16-, 24-, or 32-bit depending on "Number of bits per sample"	DATA SAMPLES START HERE

Example File

Shown below is an example view of a .CHN file in HEXADECIMAL notation. The byte numbers are along the left side of the viewer. Boxed in white is first the DATA start offset and it can be seen that starting at the byte specified in this offset is the actual sample data. Note that it is prefaced by trailing "00" from the previous value and from then on, all sample data is consistently non-zero.



Additional Information

Note that the file is 'little-endian'—that is the values are serialized into the file LSB first. This is not important but should be considered if changes are to be made to the serialization procedure. It must only be consistent between read and write operations. The .NET serialization utilities currently used in SLICEWare have defaulted to this because the x86 processor architecture is 'little-endian'.

Take the data offset for example. The 8 bytes read E2 00 00 00 00 00 00 00, but this does not mean the data starts at byte #1.62850163 × 10e19. E2 is the LSB, so the offset is 00 00 00 00 00 00 00 E2, or byte #226d.

SLICE Base Firmware Update Procedure

To update the SLICE MICRO™ or SLICE NANO™ Base firmware, you need:

1. ***Hardware:*** SLICE USB cable or SLICE SSI Cable Kit.

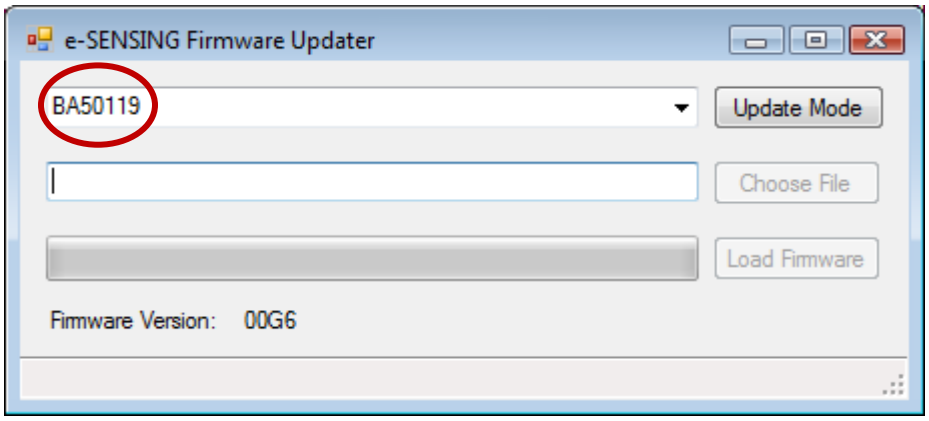
2. ***Software:*** ZIP file extracted on your PC. (This is typically provided by Technical Support via an attachment or web link.) The ZIP file contains the SLICE Firmware Updater program (eSENSING_FirmwareUpdater.exe) and required support files.

3. ***Firmware:*** Firmware version (*.sfw) you want to install.

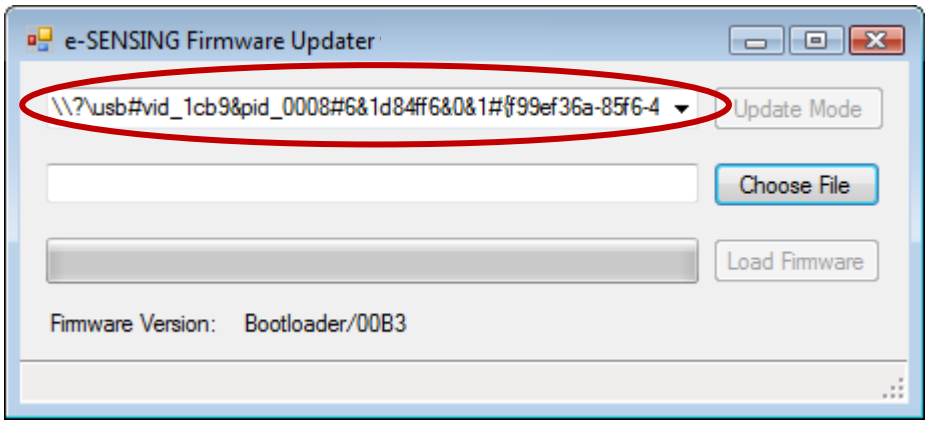
4. ***Procedure:***

   1. With PC on, connect the SLICE Base to the PC via USB. Power-up the SLICE Base.

   2. Start the SLICE Firmware Updater (eSENSING_FirmwareUpdater.exe). The screen will show the serial number of the connected Base:



3. Press Update Mode. The SLICE LEDs will flash. SLICE will disconnect, then reconnect. The internal ID of the SLICE Base will be shown:

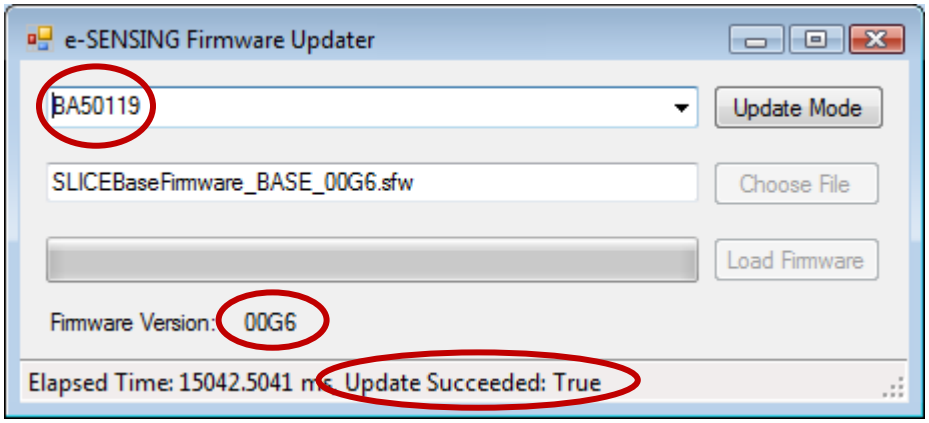


If this does not happen after 30 seconds, close then reopen the Firmware Updater program.

4. Press Choose File. Select the file (*.sfw) you want to use for update.

5. Press Load Firmware. The progress bar will show the progress of the firmware update. When the update is complete, the SLICE Base will reboot.

6. After reboot, the serial number and new firmware version will be shown. The status bar will indicate that the firmware update was successful.



Revision History

Date	By	Description
8 April 2013	EKK	Copied 10920-03002-MAN rev 5 as initial release. (Rev 0)