

## Firmware and Software Updates

Highlighted items are latest updates.

Date	Type	Version	Comments
13 May 2021	Release	gui: 07-may-2021 head: 28-mar-2019  tx (2020/2026): 29-may-2017  tx (2022/2024): 16-aug-2010  sim: 03-apr-2017	Minor bugs fixed
28 Mar 2019	Update	gui: 09-Feb-2019 head: 28-Mar-2019  tx (2020/2026): 29-May-2017  tx (2022/2024): 16-Aug-2010  sim: 03-Apr-2017	GUI release <ul style="list-style-type: none"> <li>• 450kHz operation is available for all 2020 systems.</li> <li>• Performance improvements and fixed minor bugs in GUI.</li> </ul>
18 Jan 2019	Update	gui: 07-Jan-2019 head: 13-Nov-2018  tx (2020/2026): 26-Feb-2016  tx (2022/2024): 16-Aug-2010  sim: 03-Apr-2017	GUI updates <ul style="list-style-type: none"> <li>• 450kHz operation for all 2020 systems</li> <li>• Bug fixes and performance improvements</li> </ul>
28 Sept 2017	Update	gui: 28-Sept-2017 head: 03-Apr-2017  tx (2020/2026): 26-Feb-2016  tx (2022/2024): 16-Aug-2010  sim: 03-Apr-2017	GUI update <ul style="list-style-type: none"> <li>• GUI support for units of survey feet</li> </ul>
13 Apr 2017	Release	gui: 12-Apr-2017 head: 03-Apr-2017  tx (2020/2026): 26-Feb-2016  tx (2022/2024): 16-Aug-2010	GUI and Firmware Release <ul style="list-style-type: none"> <li>• Ultra High Density (1024 soundings)</li> <li>• Pipeline Mode (MultiMode)</li> <li>• TruePix™ Monitor</li> </ul>

		sim: 03-Apr-2017	
03 Nov 2016	Release	gui: 25-Oct-2016 head: 22-Jun-2016  tx (2020/2026): 26-Feb-2016  tx (2022/2024): 16-Aug-2010  sim: 02-Dec-2015	GUI release <ul style="list-style-type: none"> <li>• MultiSpectral Mode™, collect data at multiple frequencies in a single pass with one system for bottom classification.</li> <li>• Gui: swath coverage can be adjusted one side at a time.</li> <li>• Gui: copper-black palette available for acoustic image.</li> <li>• Gui: fixed localization issue (decimal and comma).</li> </ul>
23 June 2016	Release	gui: 27-May-2016 head: 22-Jun-2016  tx (2020/2026): 26-Feb-2016  tx (2022/2024): 16-Aug-2010  sim: 02-Dec-2015	Major firmware & GUI release <ul style="list-style-type: none"> <li>• Standard frequency range is expanded to 170-450kHz for Sonic 2026 systems, and Sonic 2022 and 2024 systems with model 1006 projectors.</li> <li>• GUI now includes ROBO Mode for shallow water surveys less than 40m in depth, simplifying sonar operation.</li> <li>• 700kHz UHR option is now available for Sonic 2020 systems, enabling 1° x 1° beamwidths.</li> <li>• UHR sector coverage is extended to 70°, increasing swath coverage.</li> <li>• Pitch stabilization is now supported by the Sonic 2020 and 2026 systems.</li> <li>• Steerable / Adjustable Beamwidth Forward-Looking Sonar is now available as an optional upgrade for Sonic 2020 and 2026 systems, allowing for better use of fixed sonar installations and increased control over the area.</li> <li>• Minor feature additions to GUI.</li> </ul>

08 Aug 2014	Release	gui: 27-Jun-2014 head: 17-Jun-2014 sim: 06-Feb-2014	<p>Added saturation monitor &amp; other enhancements.</p> <ul style="list-style-type: none"> <li>• Gui addition: Saturation monitor.</li> <li>• Head firmware addition: Head reports TX voltage difference, in dB, at the time of ping from user setting. Useful for bottom classification software. Reported in the H0_TxMiscInfo data header.</li> <li>• Increased range to 1200 metres (head and GUI).</li> <li>• Gui fix: Minor threading enhancements.</li> <li>• Minor adjustments to head firmware.</li> </ul>
08 Aug 2014	Update		<p>Wireshark decoder update (for software developers)</p> <ul style="list-style-type: none"> <li>• Updated Wireshark packet decoders. Support for versions 1.12.x</li> <li>• New &amp; improved Ethernet playback utility for Wireshark .pcap files.</li> </ul>
05 Apr 2014	Update	gui: 04-Apr-2014	<p>Addition support for integrated INS</p> <ul style="list-style-type: none"> <li>• SIM-INS recognition.</li> <li>• Expanded engineering commands.</li> <li>• Minor adjustments to head firmware.</li> </ul>
10 Feb 2014	Release	gui: 19-Jan-2014 head: 16-Nov-2013-04-35-57 sim: 06-Feb-2014	<p>Support integrated INS and Ethernet motion data.</p> <ul style="list-style-type: none"> <li>• Motion and time data via Ethernet with R2Sonic INS format.</li> <li>• Support for Octans TAH motion format (RS232 &amp; Ethernet).</li> <li>• Integrated INS option.</li> <li>• Gui addition, Remote Assistance using TeamViewer (Internet connection required).</li> </ul>

			<ul style="list-style-type: none"> <li>• Additional remote GUI commands to adjust absorption &amp; spreading loss.</li> <li>• Head will automatically detect if the Ethernet connection uses 2-pairs &amp; drop to 100Mbit data rate.</li> </ul>
17 Nov 2013	Update	gui: 17-Oct-2013 head: 16-Nov-2013	<p>Added bottom sample mode.</p> <ul style="list-style-type: none"> <li>• Added bottom sample mode.</li> </ul>
02 Apr 2013	Update	gui: 22-Mar-2013 head: 16-May-2013 sim: 08-Aug-2012	<p>Support for the 2020.</p> <ul style="list-style-type: none"> <li>• Added support for 2020 (gui &amp; head firmware).</li> <li>• Can run many instances of gui using command line switch /instance=n, where n = 1 thru 9.</li> <li>• Added Intensity Enable checkbox to Sonar Settings window. This enables intensity data in the bathy packet. Previously, required setting display mode to intensity.</li> </ul>
14 Sep 2012	Release/ Update	gui: 17-Aug-2012 head: 16-Aug-2012 sim: 08-Aug-2012	<p>Support for UHR (700 kHz) and minor gui fixes.</p> <p>For systems without UHR option or projector, firmware update is not needed.</p> <ul style="list-style-type: none"> <li>• Head &amp; GUI, UHR support.</li> <li>• SIM bug fix, sending both ZDA &amp; UTC time strings.</li> <li>• GUI fix, Windows 7 networking issue with two or more NICs. Win2k &amp; XP not affected.</li> <li>• GUI bug fix, rare crash when AI enabled.</li> <li>• GUI addition, projector ID readout to status.</li> </ul>
27 Aug 2012	Update		<p>Wireshark decoder update (for software developers)</p> <ul style="list-style-type: none"> <li>• Updated Wireshark packet decoders. Support for versions 1.6.x and 1.8.x.</li> </ul>
16 May 2012	Update		<p>Sample Ethernet data for software developers</p> <ul style="list-style-type: none"> <li>• Added Equidistant bathy data.</li> </ul>

			<ul style="list-style-type: none"> <li>Updated Wireshark packet decoders (new status data item).</li> </ul>
24 Apr 2012	Minor Update	gui: 24-Apr-2012	<p>Minor GUI update</p> <ul style="list-style-type: none"> <li>Selectable bathymetry dot size, 1 or 3-pixels. Useful for observing AI data.</li> <li>Updated DefaultSettingsDualHead.ini file.</li> <li>Added response time to status screen. Useful for measuring Ethernet latency on ROVs.</li> </ul>
16 Apr 2012	Release	gui: 12-Apr-2012 head: 13-Apr-2012 sim: 05-Apr-2012	<p>Major firmware &amp; GUI release</p> <ul style="list-style-type: none"> <li>TruePix™, Water Column, Forward Looking options</li> <li>Acoustic imagery in gui</li> <li>External ping sync input &amp; output</li> <li>Dual head mode synchronization, alternating &amp; simultaneous</li> <li>Single ping mode</li> <li>Snapshot</li> <li>Measurement ruler (Ctrl+LMB)</li> <li>Indicators in gui echo SIM LEDs</li> <li>Status &amp; options view</li> <li>GUI accepts Euro settings regarding decimal point</li> <li>Added minimum range gate</li> <li>Hot keys: Alt+Z = zero sector; Alt+X = snapshot; F2 = sonar settings</li> <li>GUI accepts remote commands (for developers)</li> </ul>
11 Apr 2012	Update		<p>Sample Ethernet data for software developers</p> <ul style="list-style-type: none"> <li>Bathymetry, TruePix™, Snippets, WC, AI, Status data</li> </ul>

			<ul style="list-style-type: none"> <li>• Tutorial: Recording &amp; playback of Ethernet data</li> <li>• Wireshark packet decoders for uplink data</li> <li>• Control and data format documentation (PDF)</li> </ul>
29 Mar 2011	Release	gui: 29-Mar-2011 head: 14-Mar-2011 sim: 21-Oct-2010	<p>Major firmware &amp; GUI release</p> <ul style="list-style-type: none"> <li>• GateTrac (auto gates)</li> <li>• RangeTrac</li> <li>• Ping sync output</li> <li>• Shift+LMB required to disable transmitter</li> <li>• RMB moves both depth gates in tandem</li> <li>• Enable/disable draggable sector</li> </ul>